



MD800 Series AC Drive (Multidrive System) Quick Installation and Commissioning Guide



Industrial
Automation



Intelligent
Elevator



New Energy
Vehicle



Industrial
Robot



Rail
Transit



Data code 19011494A06

Preface

Introduction

The MD800 series is a new generation of standard AC drive (multidrive system) designed for low-power multidrive applications in the traditional original equipment manufacturer (OEM) industry. It is widely applied in industries such as printing and packaging, woodworking machine tools, food and beverage, logistics and storage, textile printing and dyeing, fans, and water pumps.

This document describes the installation, wiring, quick commissioning, commissioning parameters, and commissioning troubleshooting of the product.

More Documents

Name	Data Code	Description
MD800 Series AC Drive (Multidrive System) Quick Installation and Commissioning Guide (this guide)	19011494	This guide describes the installation, wiring, quick commissioning, commissioning parameters, and commissioning troubleshooting of the product.
MD800 Series AC Drive (Multidrive System) Design and Model Selection Guide	19011492	This guide describes the system composition, technical specifications, dimensions, detailed specifications and selection of options (installation accessories, cables, and peripheral electrical components), common EMC problems and solutions, and compliant certifications and standards.
MD800 Series AC Drive (Multidrive System) Maintenance and Repair Guide	19011495	This guide describes the routine maintenance, component replacement, and troubleshooting of the product.
MD800 Series AC Drive (Multidrive System) Function Guide	19011493	This guide describes the commissioning tools, system commissioning procedures, parameters, fault codes, and product functions and applications.
MD800 Series AC Drive (Multidrive System) Communication Guide	19011496	This guide describes the communication mode, communication networking, and communication configuration of the product.
MD800 Series AC Drive (Multidrive System) User Guide	PS00009036	This guide describes model selection, installation, wiring, commissioning, function description, fault handling, maintenance, and so on.

Revision History

Date	Version	Description
January 2024	A06	Modified the following sections: <ul style="list-style-type: none"> • "4.5 Parameter List of the Power Supply Unit" on page 41 • "4.6 Parameter List of the Drive Unit" on page 91 • "4.7.1 List of Fault Codes for the Power Supply Unit" on page 153 • "4.7.2 List of Fault Codes for the Drive Unit" on page 159
March 2023	A05	<ul style="list-style-type: none"> • Updated the fault information in section 4.7 Fault List. • Updated section 2.3.3 Accessory Kit.
September 2022	A04	Updated section 1.1 Unpacking Check, 4.6 Parameter List of the Drive Unit, 4.7 Fault List, the front cover, the back cover, the preface, and the fundamental safety instructions.
April 2022	A03	Updated the installation environment and the parameter list of the drive unit.
August 2021	A02	Updated the fault code and commissioning parameter.
July 2021	A01	Updated the data code and version.
March 2021	A00	First issue

Access to the Guide

This guide is not delivered with the product. You can obtain the PDF version in the following ways:

- Visit <http://www.inovance.com>, go to Support > Download, search by keyword, and then download the PDF file.
- Scan the QR code on the product with your smart phone.
- Scan the QR code below to install the app, where you can search for and download manuals.



Warranty agreement

Inovance provides warranty service within the warranty period (as specified in your order) for any fault or damage that is not caused by improper operation of the user. You will be charged for any repair work after the warranty period expires.

Within the warranty period, maintenance fee will be charged for the following damage:

- Damage caused by operations not following the instructions in the user guide

- Damage caused by fire, flood, or abnormal voltage
- Damage caused by unintended use of the product
- Damage caused by use beyond the specified scope of application of the product
- Damage or secondary damage caused by force majeure (natural disaster, earthquake, and lightning strike)

The maintenance fee is charged according to the latest Price List of Inovance. If otherwise agreed upon, the terms and conditions in the agreement shall prevail.

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Fundamental Safety Instructions

Safety Disclaimer

- This chapter provides essential safety instructions for proper use of the equipment. Before using this product, read the user guide thoroughly and correctly understand the related safety precautions. Failure to comply with the safety instructions may result in death, severe personal injuries, or equipment damage.
- "CAUTION", "WARNING", and "DANGER" items in the guide only indicate some of the precautions that need to be followed; they just supplement the safety precautions.
- Use this equipment according to the designated environment requirements. Damage caused by improper use is not covered by warranty.
- Inovance shall take no responsibility for any personal injuries or property damage caused by improper use.

Safety Levels and Definitions



Indicates that failure to comply with the notice will result in death or severe personal injuries.



Indicates that failure to comply with the notice may result in death or severe personal injuries.



Indicates that failure to comply with the notice may result in minor or moderate personal injuries or equipment damage.

General Safety Instructions

- Drawings in the guide are sometimes shown without covers or protective guards. Remember to install the covers or protective guards as specified first, and then perform operations in accordance with the instructions.
- The drawings in the guide are shown for illustration only and may be different from the product you purchased.
- Users must take mechanical precautions to protect personal safety and wear protective equipment, such as anti-smashing shoes, safety clothing, safety glasses, protective gloves, and protective sleeves.

Unpacking **WARNING**

- Do not install the equipment if you find damage, rust, or signs of use on the equipment or accessories upon unpacking.
- Do not install the equipment if you find water seepage or missing or damaged components upon unpacking.
- Do not install the equipment if you find the packing list does not conform to the equipment you received.

 **CAUTION**

- Check whether the packing is intact and whether there is damage, water seepage, dampness, and deformation before unpacking.
- Unpack the package by following the unpacking sequence. Do not strike the package violently.
- Check whether there is damage, rust, or injuries on the surface of the equipment and equipment accessories before unpacking.
- Check whether the package contents are consistent with the packing list before unpacking.

Storage and Transportation **WARNING**

- Large-scale or heavy equipment must be transported by qualified professionals using specialized hoisting equipment. Failure to comply may result in personal injuries or equipment damage.
- Before hoisting the equipment, ensure the equipment components such as the front cover and terminal blocks are secured firmly with screws. Loosely-connected components may fall off and result in personal injuries or equipment damage.
- Never stand or stay below the equipment when the equipment is being hoisted by the hoisting equipment.
- When hoisting the equipment with a steel rope, ensure the equipment is hoisted at a constant speed without suffering from vibration or shock. Do not turn the equipment over or let the equipment stay hanging in the air. Failure to comply may result in personal injuries or equipment damage.

 CAUTION

- Handle the equipment with care during transportation and mind your steps to prevent personal injuries or equipment damage.
- When carrying the equipment with bare hands, hold the equipment casing firmly with care to prevent parts from falling. Failure to comply may result in personal injuries.
- Store and transport the equipment based on the storage and transportation requirements. Failure to comply will result in equipment damage.
- Avoid storing or transporting the drive in the environment with water splash, rain, direct sunlight, strong electric field, strong magnetic field, and strong vibration.
- Avoid storing the equipment for more than three months. Long-term storage requires stricter protection and necessary inspections.
- Pack the equipment strictly before transportation. Use a sealed box for long-distance transportation.
- Never transport the equipment with other equipment or materials that may harm or have negative impacts on this equipment.

Installation

 DANGER

- The equipment must be operated only by professionals with electrical knowledge. Non-professionals are not allowed.

 WARNING

- Read through the guide and safety instructions before installation.
- Do not install this equipment in places with strong electric or magnetic fields.
- Before installation, check that the mechanical strength of the installation site can bear the weight of the equipment. Failure to comply will result in mechanical hazards.
- Do not wear loose clothes or accessories during installation. Failure to comply may result in an electric shock.
- When installing the equipment in a closed environment (such as a cabinet or casing), use a cooling device (such as a fan or air conditioner) to cool the environment down to the required temperature. Failure to comply may result in equipment over-temperature or a fire.
- Do not retrofit the equipment.
- Do not fiddle with the bolts used to fix equipment components or the bolts marked in red.
- When the equipment is installed in a cabinet or final assembly, a fireproof enclosure providing both electrical and mechanical protections must be provided. The IP rating must meet IEC standards and local laws and regulations.
- Before installing equipments with strong electromagnetic interference, such as a transformer, install a shielding equipment for the equipment to prevent malfunction.
- Install the equipment onto an incombustible object such as a metal. Keep the equipment away from combustible objects. Failure to comply will result in a fire.

 CAUTION

- Cover the top of the equipment with a piece of cloth or paper during installation. This is to prevent unwanted objects such as metal chippings, oil, and water from falling into the equipment and causing faults. After installation, remove the cloth or paper on the top of the equipment to prevent over-temperature caused by poor ventilation due to blocked ventilation holes.
- Resonance may occur when the equipment operating at a constant speed executes variable speed operations. In this case, install the vibration-proof rubber under the motor frame or use the vibration suppression function to reduce resonance.

Wiring DANGER

- Equipment installation, wiring, maintenance, inspection, or parts replacement must be performed only by professionals.
- Before wiring, cut off all the power supplies of the equipment, and wait for at least the time designated on the equipment warning label before further operations because residual voltage still exists after power-off. After waiting for the designated time, measure the DC voltage in the main circuit to ensure the DC voltage is within the safe voltage range. Failure to comply will result in an electric shock.
- Do not perform wiring, remove the equipment cover, or touch the circuit board with power ON. Failure to comply will result in an electric shock.
- Check that the equipment is grounded properly. Failure to comply will result in an electric shock.

 WARNING

- Do not connect the input power supply to the output end of the equipment. Failure to comply can result in equipment damage or even a fire.
- When connecting a drive to the motor, check that the phase sequences of the drive and motor terminals are consistent to prevent reverse motor rotation.
- Cables used for wiring must meet cross sectional area and shielding requirements. The shield of the cable must be reliably grounded at one end.
- Fix the terminal screws with the tightening torque specified in the user guide. Improper tightening torque may overheat or damage the connecting part, resulting in a fire.
- After wiring is done, check that all cables are connected properly and no screws, washers or exposed cables are left inside the equipment. Failure to comply may result in an electric shock or equipment damage.

 CAUTION

- Follow the proper electrostatic discharge (ESD) procedure and wear an anti-static wrist strap to perform wiring. Failure to comply may result in damage to the equipment or to the internal circuit of the product.
- Use shielded twisted pairs for the control circuit. Connect the shield to the grounding terminal of the equipment for grounding purpose. Failure to comply can result in equipment malfunction.

Power-on

 DANGER

- Before power-on, check that the equipment is installed and wired properly and the motor can be restarted.
- Check that the power supply meets equipment requirements before power-on to prevent equipment damage or a fire.
- After power-on, do not open the cabinet door or protective cover of the equipment, touch any terminal, or disassemble any unit or component of the equipment. Failure to comply will result in an electric shock.

 WARNING

- Perform a trial run after wiring and parameter setting to ensure the equipment operates safely. Failure to comply may result in personal injuries or equipment damage.
- Before power-on, check that the rated voltage of the equipment is consistent with that of the power supply. If the power supply voltage is used incorrectly, it will result in a fire.
- Before power-on, check that no one is near the equipment, motor, or other mechanical parts. Failure to comply may result in personal injuries or even death.

Operation

 DANGER

- The equipment must be operated only by professionals. Failure to comply will result in death or personal injuries.
- Do not touch any connecting terminals or disassemble any unit or component of the equipment during operation. Failure to comply will result in an electric shock.

 WARNING

- Do not touch the equipment casing, fan, or resistor with bare hands to feel the temperature. Failure to comply may result in personal injuries.
- Prevent metal or other objects from falling into the equipment during operation. Failure to comply may result in a fire or equipment damage.

Maintenance

 DANGER

- Equipment installation, wiring, maintenance, inspection, or parts replacement must be performed only by professionals.
- Do not maintain the equipment with power ON. Failure to comply will result in an electric shock.
- Before maintenance, cut off all the power supplies of the equipment and wait for at least the time designated on the equipment warning label.
- In case of a permanent magnet motor, do not touch the motor terminals immediately after power-off because the motor terminals will generate induced voltage during rotation even after the equipment power supply is off. Failure to comply will result in an electric shock.

 WARNING <ul style="list-style-type: none"> • Perform routine and periodic inspection and maintenance on the equipment according to maintenance requirements and keep a maintenance record.
Repair
 DANGER <ul style="list-style-type: none"> • Equipment installation, wiring, maintenance, inspection, or parts replacement must be performed only by professionals. • Do not repair the equipment with power ON. Failure to comply will result in an electric shock. • Before inspection and repair, cut off all the power supplies of the equipment and wait for at least the time designated on the equipment warning label.
 WARNING <ul style="list-style-type: none"> • Submit the repair request according to the warranty agreement. • When the fuse is blown or the circuit breaker or earth leakage current breaker (ELCB) trips, wait for at least the time designated on the equipment warning label before power-on or further operations. Failure to comply may result in death, personal injury or equipment damage. • When the equipment is faulty or damaged, the troubleshooting and repair work must be performed by professionals that follow the repair instructions, with repair records kept properly. • Replace quick-wear parts of the equipment according to the replacement instructions. • Do not use damaged equipment. Failure to comply may result in death, personal injury, or severe equipment damage. • After the equipment is replaced, check the wiring and set parameters again.
Disposal
 WARNING <ul style="list-style-type: none"> • Dispose of retired equipment in accordance with local regulations and standards. Failure to comply may result in property damage, personal injury, or even death. • Recycle retired equipment by observing industry waste disposal standards to avoid environmental pollution.

Safety label

For safe equipment operation and maintenance, comply with the safety labels on the equipment. Do not damage or remove the safety labels. See the following table for descriptions of the safety labels.

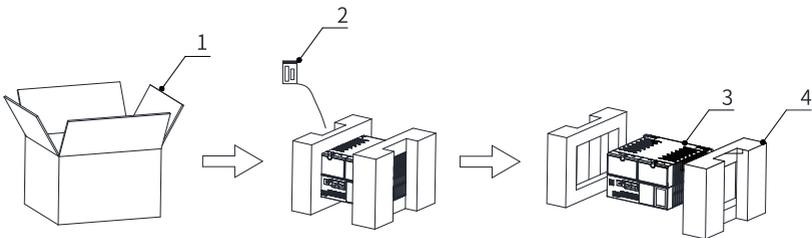
Safety Label	Description
	<ul style="list-style-type: none">• Read through the safety instructions before operating the equipment. Failure to comply may result in death, personal injuries, or equipment damage.• Do not touch the terminals or remove the cover with power ON or within 10 min after power-off. Failure to comply will result in an electric shock.

1 Unpacking and Handling

1.1 Unpacking Check

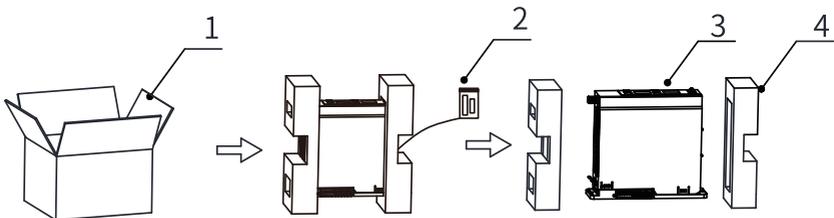
When receiving goods from the shipping company, check that you have received all the items specified on the delivery note. Notify the shipping company immediately of any missing components or damage. If necessary, seek support from the Invoice office or your local agent.

After unpacking, check the item lists carefully and confirm that the terminals of the drive unit have been locked firmly to prevent them from falling off during transportation.



1: Carton; 2: Accessory kit; 3: Power supply unit; 4: Cushion

Figure 1-1 Item list for the power supply unit



1: Carton; 2: Accessory kit; 3: Drive unit; 4: Cushion

Figure 1-2 Item list for the drive unit



If the equipment is damaged during transportation, its electrical safety can no longer be ensured. Do not connect the equipment until a thorough high-voltage test has been performed.

1.2 Handling Requirements

Due to the small size and light weight, you can manually transport the drive. Handle the drive with care. Do not throw or drag the drive or step on its package.

Cartons are used for transportation. When packing and transporting the drive, ensure that the stacking height is no higher than 1.8 m.

1.3 Storage Requirements

Requirements for storage with package:

- When the drive is placed near the wall and no passage is left, reserve the clearance of at least 200 mm between the drive and the wall.
- Never occupy the fire exit and block the emergency exit when storing the drive.
- Reserve a passage with the width of about 1 meter in front of the fire hydrant, and do not place the drive within one meter in front of the power distribution cabinet.
- When the drive packed in a carton is stored outdoors, place the carton on a pallet and fully cover it with rain-proof cloth.
- The drive that has been stored for more than 24 hours or underwent severe weather must pass the risk assessment by relevant departments before transshipment and delivery.
- Store the drive with care. Never throw it, drag it on the ground, or step on the package and operate it.
- During storage, place the large and heavy drive at the bottom. The total stack height cannot exceed 1.8 m.
- Place the drive delivered with the pallet within the pallet. When there are more than two stacking layers and the overlapping mode is used, fix the drive with the stretch film. Do not use the box-sealing tape to fix the drive.

Requirements for storage without package:

- Store the drive in a clean and dry room, with the temperature ranging from -40°C to +70°C and the temperature variation smaller than 1°C/min.
- If the drive needs to be stored for a long period of time, cover it up or take similar measures to prevent the drive from being polluted or affected by the surrounding environment.
- To store the drive, pack the drive with the original packing box provided by Inovance.
- Do not expose the AC drive to the environment with moisture, high temperature, or direct sunlight for a long time.
- If the drive is not switched on for more than one year, repair the electrolytic capacitor before powering on the drive. Otherwise, the electrolytic capacitor might be damaged. For the operations of repairing the electrolytic capacitor, see chapter "Storage and Warranty" in the *MD800 Series AC Drive (Multidrive System) Maintenance and Repair Guide*.

2 Installation Preparation

2.1 Installation Flowchart

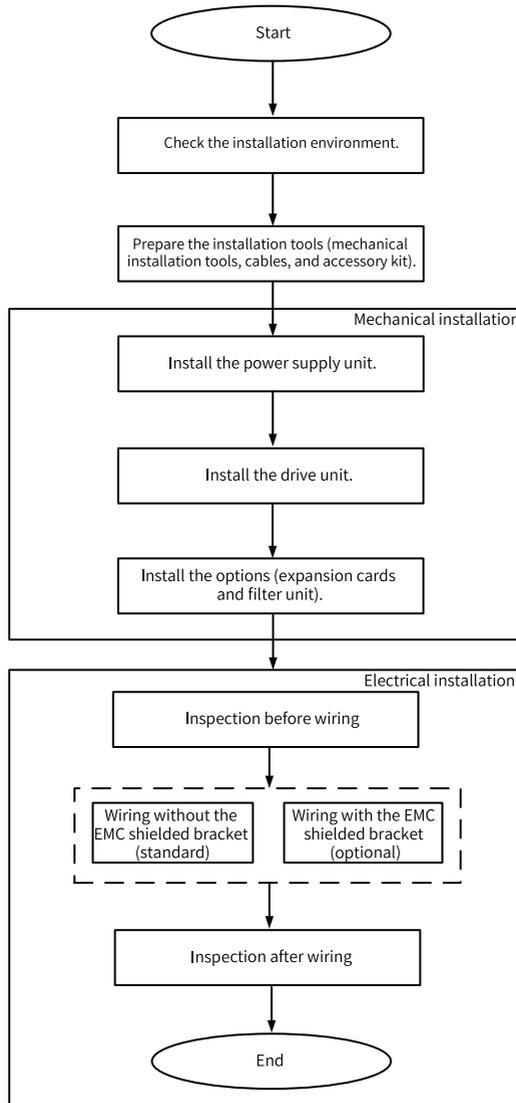


Figure 2-1 Installation flowchart

2.2 Installation Environment

To maximum the product performance and ensure long-term use, install the drive in an environment meeting the following requirements.

Table 2-1 Installation environment

Item	Requirement
Installation location	Indoor
Grid overvoltage	Overvoltage category (OVC): III
Temperature	<p>Installation/Ambient temperature:</p> <ul style="list-style-type: none"> • Applications without overload: 1) -20°C to +50°C: derating not required; 2) 50°C < temperature ≤ 60°C: derated by 2.5% for every additional 1°C; 3) > 60°C: not recommended for use • Applications without overload: 1) -20°C to +40°C: derating not required; 2) 40°C < temperature ≤ 60°C: derated by 2.5% for every additional 1°C; 3) > 60°C: not recommended for use <p>Storage/Transportation temperature: -40°C to +70°C (no freezing).</p> <ul style="list-style-type: none"> • To improve the reliability of the machine, use the drive in environments without dramatic temperature change. • When installing the drive in an enclosed cabinet, use a cooling fan or air conditioner to keep the incoming air temperature below 50°C. Failure to comply will result in overheat or fire. • Install the drive on the surface of an incombustible object and leave sufficient surrounding space for heat dissipation. • Take measures to prevent the drive from being frozen.
Humidity	<ul style="list-style-type: none"> • Ambient relative humidity: 5% to 95% • Storage relative humidity: 5% to 95% • Transportation relative humidity: Below 95% at 40°C

Item	Requirement
Environment	Pollution degree (PD): PD2 or below Install the drive in a place that meets the following requirements: <ul style="list-style-type: none"> • Free from direct sunlight, dust, corrosive gas, explosive and inflammable gas, oil mist, vapor, water drop, and salty element • Install the drive in a place away from vibration. Keep the drive away from equipment such as punch presses. • Do not install any device generating electromagnetic waves or interference, such as transformers, around the drive. If such a device is required, install a shielding plate between the device and the drive. Otherwise, the drive will malfunction. • The drive serves as a part of a final system. Install the drive as the system component in a fireproof cabinet that provides effective electrical and mechanical protection, and install it in accordance with local laws and regulations and relevant IEC standards.
Altitude	For power grids that adopt star connection, the highest altitude is 4000 m (13123 ft). For power grids that adopt delta connection, the highest altitude is 2000 m (6562 ft). <ul style="list-style-type: none"> • ≤ 1000 m (3281 ft): derating not required • > 1000 m (3281 ft): derated by 1% for every additional 100 m (328.1 ft)
Vibration	$< 4.9 \text{ m/s}^2$ <ul style="list-style-type: none"> • For transportation in the package: compliant with class 2M3 in EN 60721-3-2 • For installation with the package removed: compliant with ISTA 1H • For operation in specific scenarios: compliant with class 3M4 in IEC 60721-3-3
Dust	Compliant with class 3S2 in IEC 60721-3 (non-conductive dust)
Chemically active substance	Compliant with class 3C3 in IEC 60721-3
Shock	$< 19.6 \text{ m/s}^2$
IP rating	IP40 (excluding terminals and fans)

2.3 Installation Tools

2.3.1 Mechanical Installation Tools

Table 2-2 Mechanical installation tools

Tool	Description	Illustration
Electric drill and drilling bit	It is used to drill mounting holes on the mounting surface.	
Phillips and straight (2.5 mm) screwdrivers	They are used to tighten or loosen screws.	
Tape measure	It is used to measure the installation dimensions of the device.	
Gloves	They are used to prevent static electricity during mechanical installation.	
M4x12 cross recessed pan head SEMS screws (with flat washer and spring washer)	Power supply unit: 4 PCS per unit Drive unit: 2 PCS per unit Filter module: 2 PCS per unit	-

Tool	Description	Illustration
Wiring tool (standard for the power supply unit)	It is used to crimp the cables to terminals. The wiring tool is marked with two current types. 55 A corresponds to the input terminals of the power supply unit, and 30 A corresponds to the output terminals of the drive unit and braking terminals.	
EMC shielding brackets (optional)	The EMC shielding bracket for the power supply unit is installed on the input side of the power supply unit, and that for the drive unit is installed on the output side of the drive unit.	EMC shielding bracket for the power supply unit  EMC shielding bracket for the drive unit 

2.3.2 Cables

Table 2-3 Cables

Type	Cable Name	Illustration	Type	Cable Name	Illustration
Main circuit cable	Power cable		Control circuit cable	Signal cable	
	Grounding cable			Network cable	

2.3.3 Accessory kit

Table 2-4 Items in the accessory kit

Name	Illustration	Quantity	Name	Illustration	Quantity	Name	Illustration	Quantity
Input terminal		1	Relay output terminal (CN2)		1	Braking output terminal (BR/+) (applicable to models with an optional braking unit)		1
Signal terminal (CN1)		1	External 24 V power supply input terminal (CN6)		1	Wiring tool (standard for the power supply unit)		1

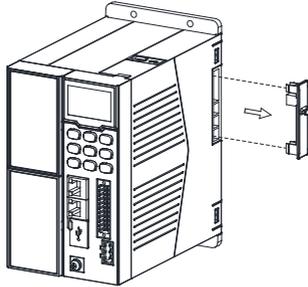
3 Installation and Wiring

3.1 Mechanical Installation

3.1.1 Installing the Power Supply Unit

Procedure

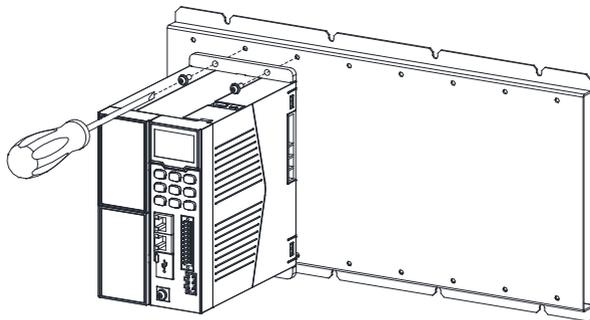
1. Remove the protective cover on the right side of the power supply unit.



Note

Keep the removed protective cover. It needs to be installed to the rightmost drive unit.

2. Tighten the four M4x12 screws at the upper and lower ends of the power supply unit to install the unit to the sheet metal mounting plate.



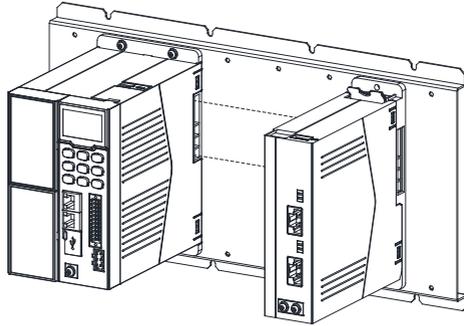


All retaining nuts must be tightened. Otherwise, the power supply unit may fall off or be damaged due to the unbalanced effect on the fixed part during long-time running.

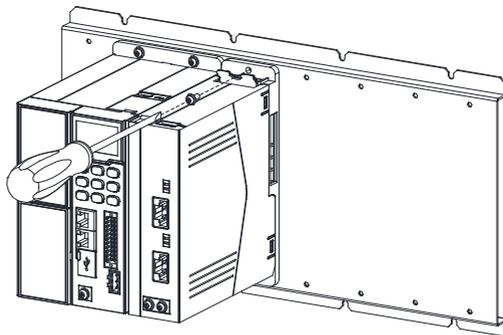
3.1.2 Installing the Drive Unit

Procedure

1. Align the connector on the left side of the drive unit with that on the right side of the power supply unit, and insert the drive unit.



2. Tighten the two M4x12 screws at the upper and lower ends of the drive unit to install the unit to the sheet metal mounting plate.

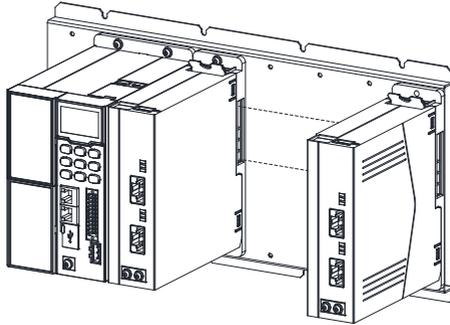




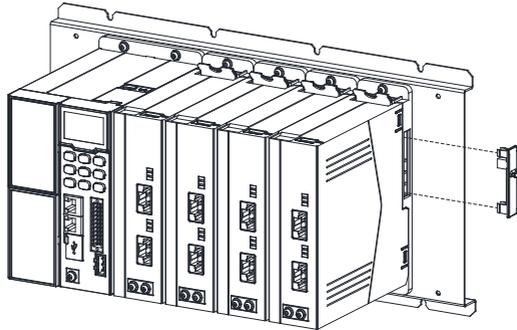
Caution

All retaining nuts must be tightened. Otherwise, the drive unit may fall off or be damaged due to the unbalanced effect on the fixed part during long-time running.

3. Install all the drive units to the sheet metal mounting plate one by one by repeating steps 1 and 2.



4. After all drive units are installed, install the removed protective cover on the connector of the rightmost drive unit.

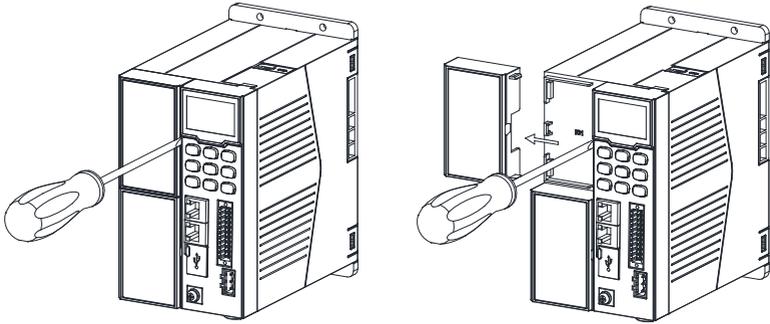


3.1.3 Installing the Options

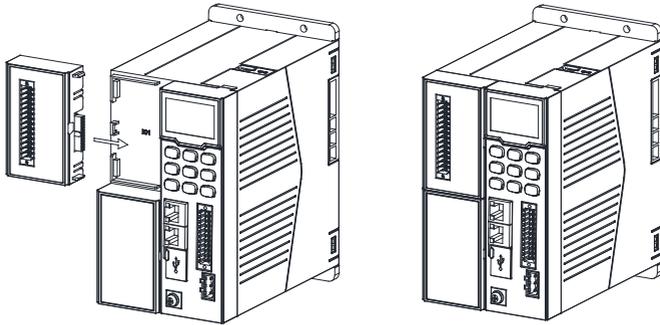
3.1.3.1 Installing the Expansion Card

Procedure

1. Insert a straight screwdriver into the concaved slot of the expansion card box and lever the box out towards left.



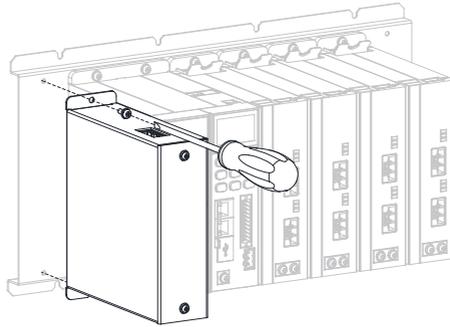
2. Align the optional expansion card with the slot and push it gently from left to right until it is in position.



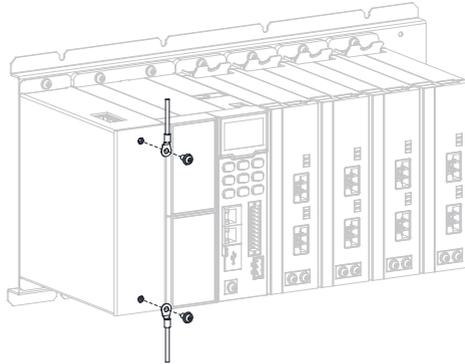
3.1.3.2 Installing the Filter Module

Procedure

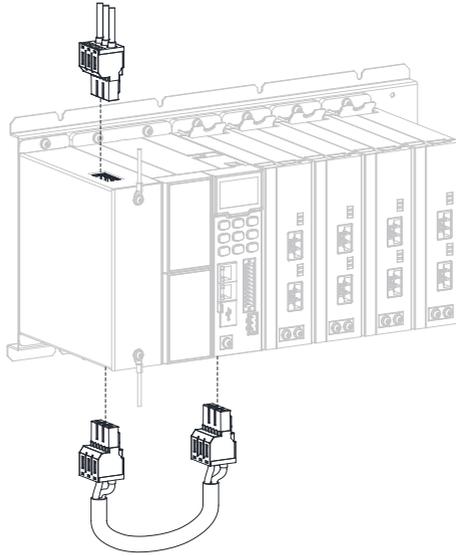
1. Secure the filter module to the left side of the power supply unit using two M4x12 screws.



2. Fix the input and output grounding terminals of the filter module using M4x10 screws (delivered with the AC drive).



3. Insert the input and output terminals of the filter module in turn.
Connect one end of the output cable of the filter module to the output terminal of the filter module, and connect the other end of the output cable to the input terminal of the drive unit.



3.2 Electrical Installation

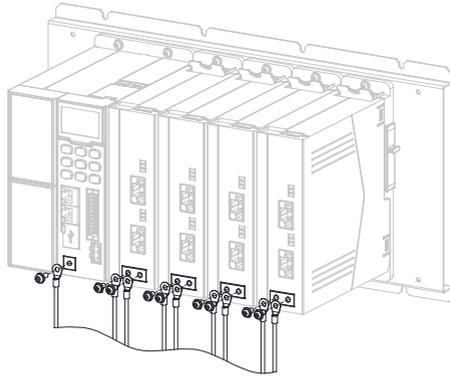
3.2.1 Pre-wiring Check

- Never wire the drive with power on, and keep all circuit breakers in the OFF state. Failure to comply will result in an electric shock.
- After disconnecting the power supplies on the input and output sides, wait for at least the time designated on the product warning label before further operations (such as wiring).
- Install and connect the motor, cabinet units, and other components in accordance with the recognized technical rules in the country and other applicable regional regulations. Comply with regulations related to the cable dimensions, fuses, grounding, disconnection, isolation, and overcurrent protection.
- If the safety device trips in a branch circuit, a faulty current may have been disconnected. To reduce the risk of fire or an electric shock, inspect the conductive parts and other components in the drive and replace the damaged parts. If the safety device trips, identify the cause of the trip and rectify the problem.

3.2.2 Wiring

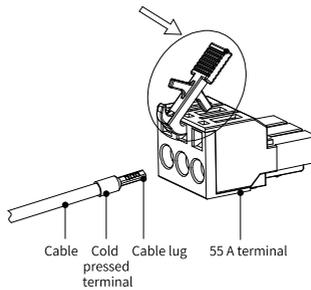
Procedure

1. Secure the grounding cables to grounding terminals using M4x10 screws.

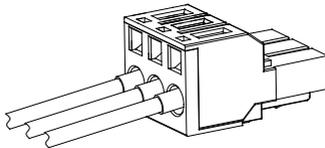


2. Crimp the cables to terminals.

Press the wiring tool (shown as the arrow in the following figure) to open the spring of the terminal, and insert the crimped cable into the round hole.



The wiring is as follows.



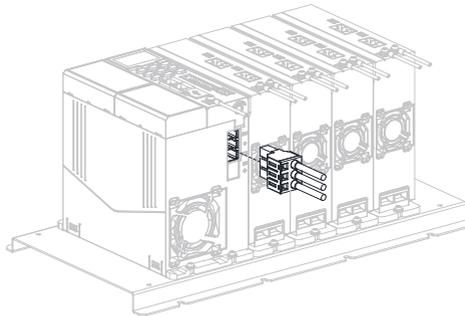
Note

- The wiring tool is required for connecting the power supply unit input terminal and drive unit output terminals. The thick side of the tool is used for the power supply unit and the thin side is used for the drive unit.
 - The signal terminal, relay output terminal, external 24 V power input terminal, and safe torque off (STO) terminal can be directly plugged in.
-

3. Insert the input terminal into the power supply unit.

Note

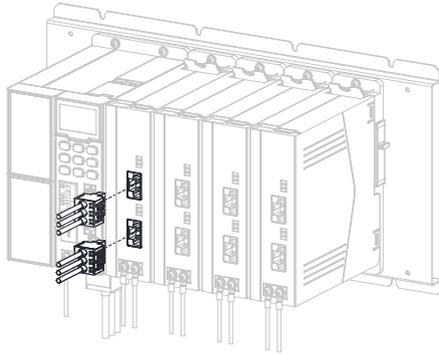
For models with an optional braking unit, the braking output terminal must be inserted.



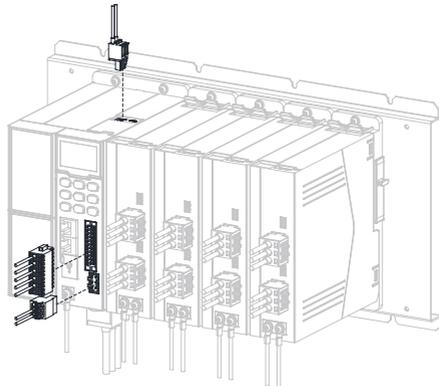
4. Insert the output terminals into the drive unit.

Note

For models with an optional STO terminal, the STO terminal must be inserted.



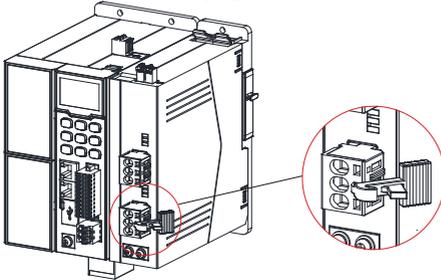
5. Insert the control terminal, relay terminal, and 24 V power supply input terminal into the power supply unit.





Caution

After completing the wiring, snap the wiring tool onto the drive unit output terminal, as shown in the following figure.

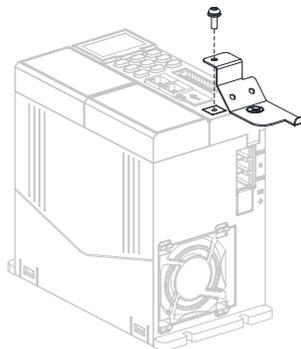


3.2.3 EMC Shielding Bracket Wiring (Optional)

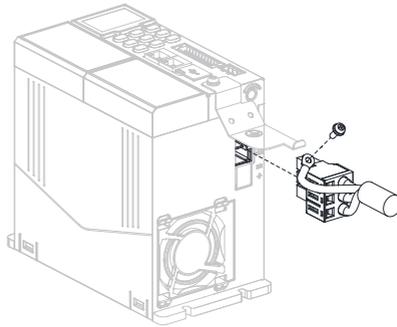
If optional EMC shielding brackets are required, the cables used must be multi-conductor shielded cables and be crimped according to the following requirements.

Procedure

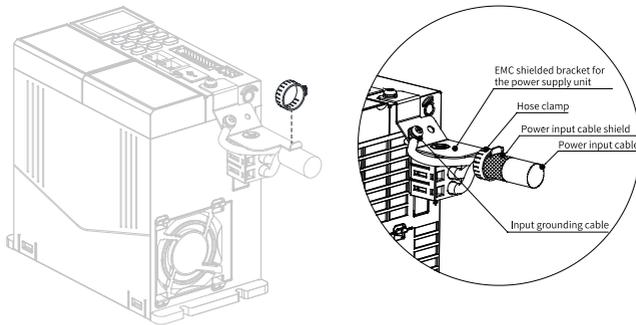
1. Connect the power supply unit.
 - a. Remove the M4x10 grounding screw from the power supply unit, and fix the EMC shielding bracket to the power supply unit with this screw.



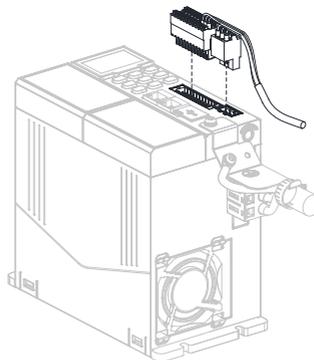
- b. Insert the input terminal (for the terminal crimping, see ["3.2.2 Wiring" on page 26](#)), and fix the input grounding cable to the EMC shielding bracket with one M4x10 screw.



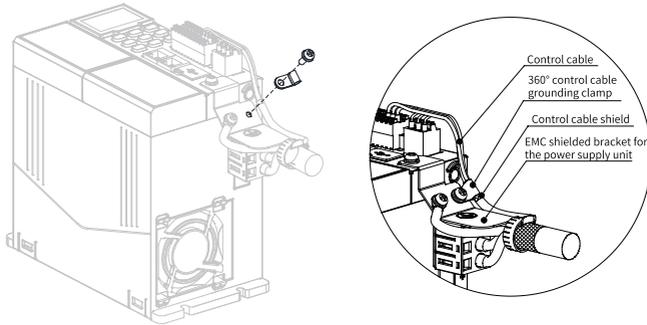
- c. Strip the cable to expose the shield for about 15 mm, and fix the shield to the EMC shielding bracket with a hose clamp.



- d. Insert the control and relay connectors.

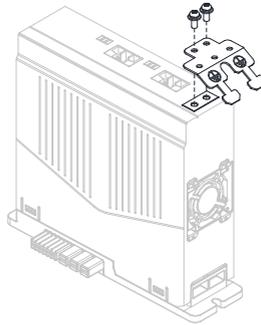


- e. Strip the control cable to expose the shield for about 15 mm, and fix the shield to the EMC shielding bracket with a 360° grounding clamp of the control cable and an M4x10 screw.

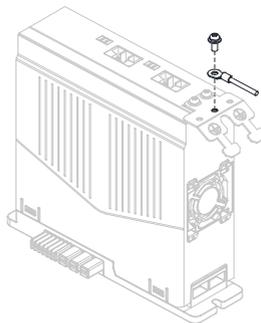


2. Connect the drive unit.

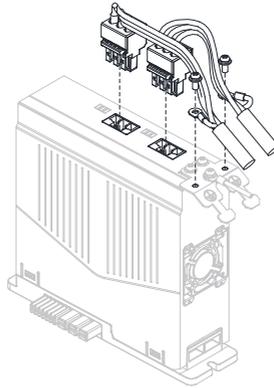
- a. Fix the EMC shielding bracket to the drive unit with two M4x10 screws.



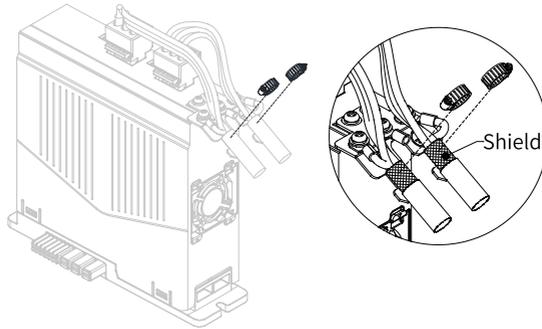
- b. Fix the drive unit grounding cable to the EMC shielding bracket with one M4x10 screw.



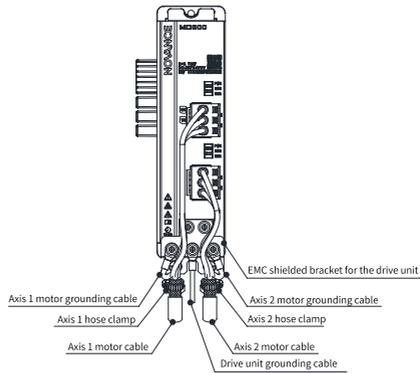
- c. Insert the drive unit output connectors, and fix the output grounding cables to the EMC shielding bracket with M4x10 screws.



- d. Strip the cable to expose the shield for about 15 mm, and fix the shield to the EMC shielding bracket with a hose clamp.



The completed wiring is as follows.



3.2.4 Post-wiring Check

After wiring has been completed, check the following items and ensure that each item has passed the inspection.

Table 3-1 Post-wiring inspection checklist

No.	Item	Passed
1	The power supply input cables are connected to the R/ L1, S, and T/L2 terminals.	
2	The motor cable is connected to the U, V, and W terminals.	
3	The cross-sectional area of the main circuit cable meet the requirements.	
4	The heat-shrink tubes have been added to the conductors of the main circuit cables, and the tubes completely cover the cable conductors.	
5	The unshielded motor output cable is no longer than 150 m or the shielded motor output cable is no longer than 50 m. If the unshielded cable exceeds 150 m or the shielded cable exceeds 50 m, decrease the carrier frequency (F0-15) and add an output reactor (see the requirements for options).	
6	The grounding cable is correctly connected.	
7	The drive output terminals and control signal terminals are securely connected.	
8	The braking resistor and braking unit (if used) are correctly connected. The resistance is proper.	
9	The control circuit signal cables are shielded twisted pair cables.	
10	The optional cards are connected correctly.	

No.	Item	Passed
11	If the drive is an STO model, confirm that the external 24 V power supply is connected properly.	
12	The control circuit cables are routed separately from the main circuit power cables.	
13	The protective cover removed from the power supply unit is reinstalled on the connector of the rightmost drive unit.	

3.2.5 System Grounding Requirements

Securely ground each module of the AC drive, including the power supply unit, drive unit, and filter module. The power supply unit, drive unit, input reactor, filter (or filter module) are connected to the grounding copper busbar of the equipment cabinet in the star connection mode, and the output side of the drive unit is connected to the motor, as shown in the following figure.

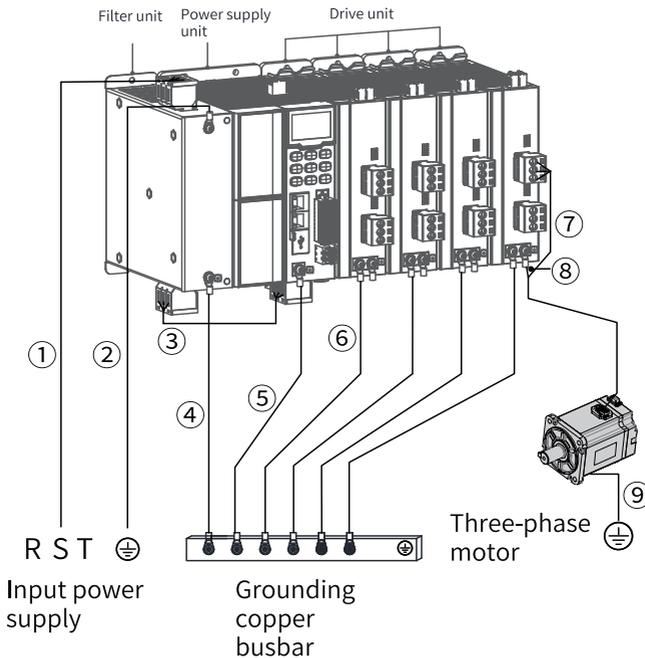


Figure 3-1 Grounding of the AC drive

No.	Description
①	Connect the input terminals of the filter module to the power supply input terminals R, S, and T.
②	Connect the input grounding screw of the filter module to the power supply ground.
③	Connect the output terminals of the filter module to the input terminals of the power supply unit. It is recommended to use shielded cables.
④	Connect the output M4 grounding screw of the filter module to the grounding copper busbar.
⑤	Connect the M4 grounding screw of the power supply unit to the grounding copper busbar.
⑥	Connect the M4 grounding screw of the drive unit to the grounding copper busbar.
⑦	Connect the output side of the drive unit to the input side of the motor.
⑧	Connect the motor output grounding cable of the drive unit to the grounding screw of the drive unit.
⑨	Ground the motor enclosure.

Note

In the preceding figure, the power supply unit is equipped with four dual-axis drive units. In the figure, only axis 1 of the rightmost drive unit is taken as an example to introduce the wiring of the drive unit. The wiring for other drive units is similar.

4 Commissioning and Trial Run

4.1 Basic Commissioning Procedure

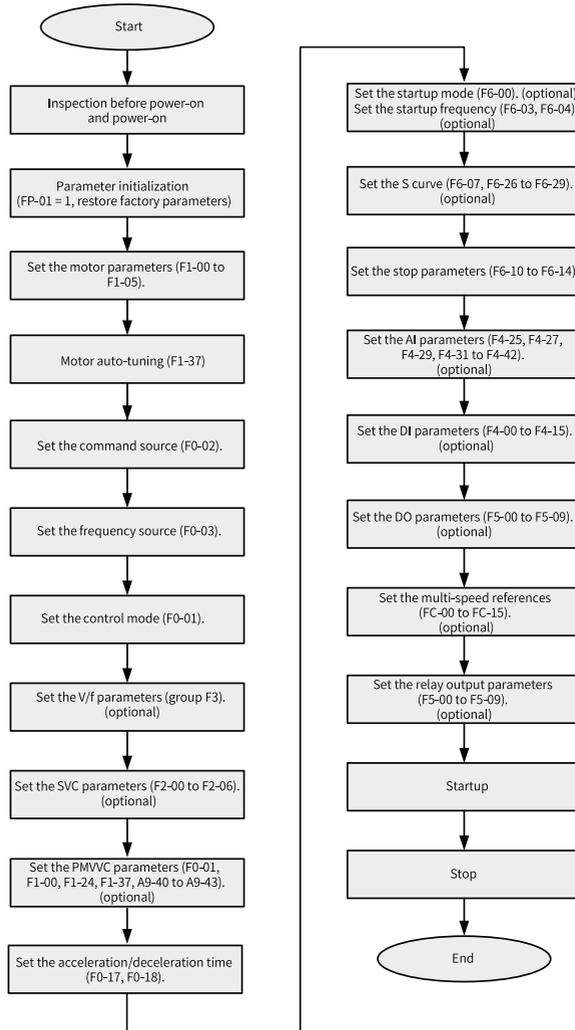


Figure 4-1 Basic commissioning flowchart

4.2 Commissioning Flowchart in the V/f Control Mode

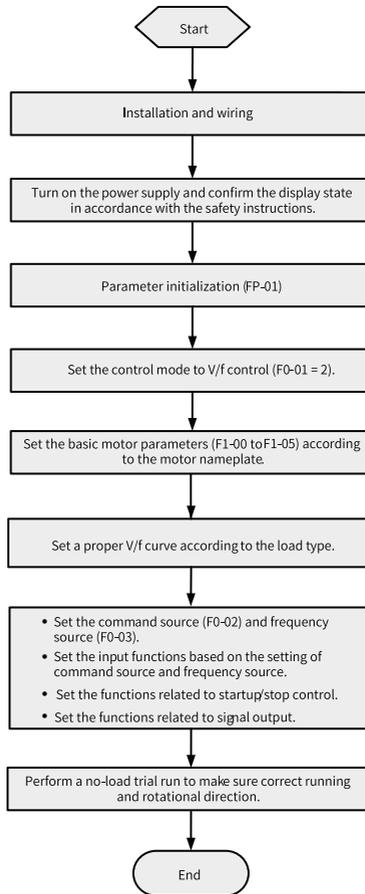


Figure 4-2 Commissioning flowchart in the V/f control mode

4.3 Commissioning Flowchart in the SVC Mode

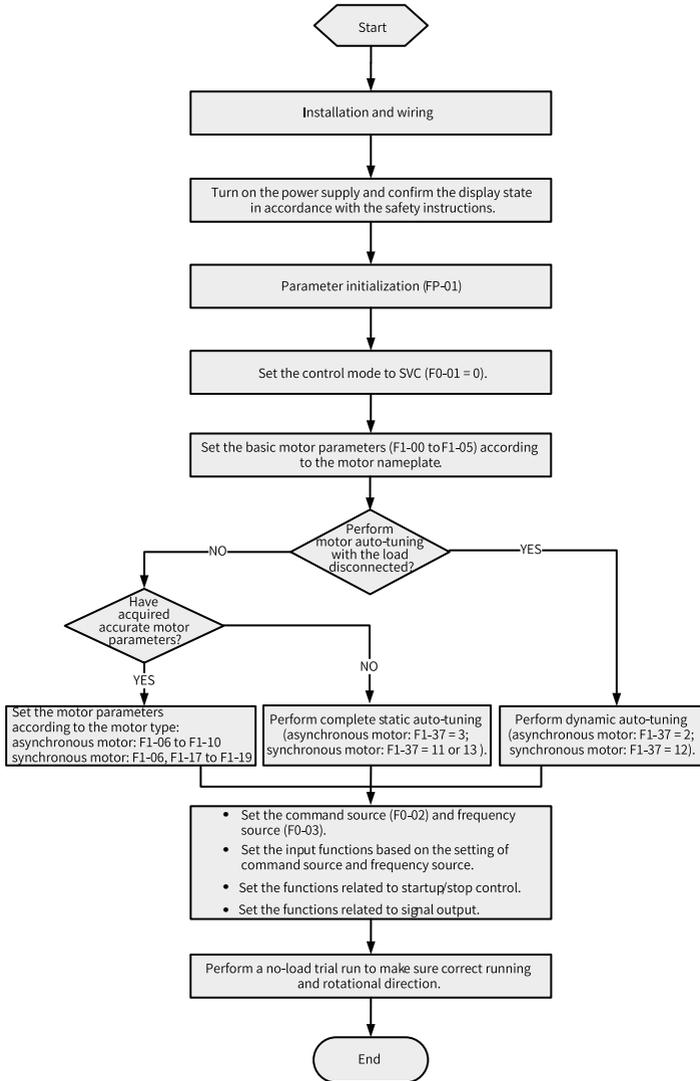


Figure 4-3 Commissioning flowchart in the SVC mode

4.4 Commissioning Flowchart in the PMVVC Mode

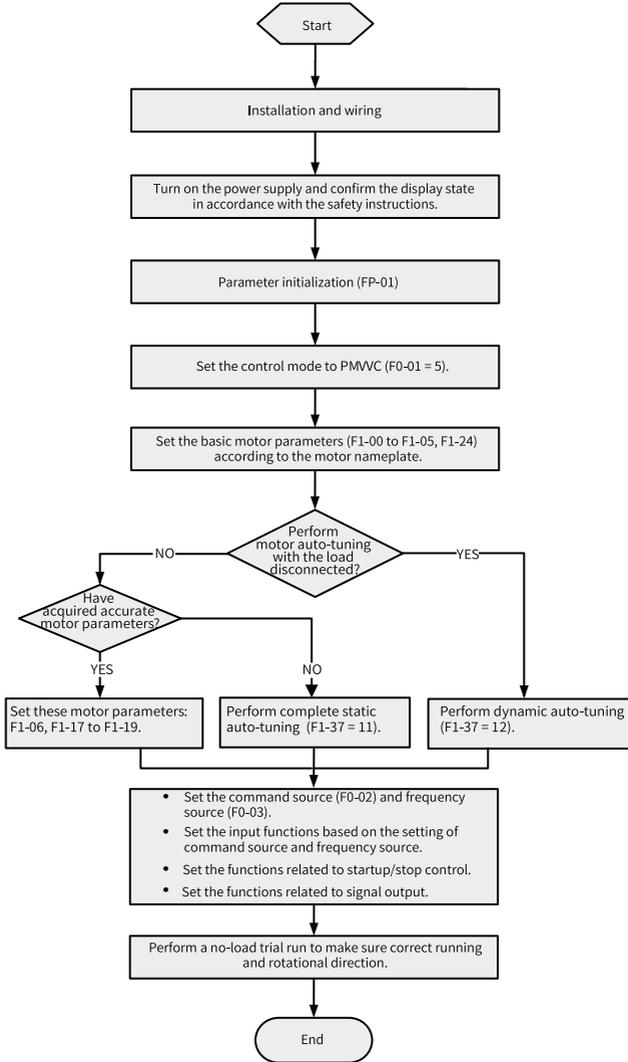


Figure 4-4 Commissioning flowchart in the PMVVC mode

4.5 Parameter List of the Power Supply Unit

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F0-00	0xF000	Module type	1: Drive unit 2: Power supply unit	2	-	Unchangeable
F0-01	0xF001	Product code	800	800	-	Unchangeable
F0-02	0xF002	Software version	0.00–655.35	0.00	-	Unchangeable
F0-03	0xF003	Temporary software version	0.00–655.35	0.00	-	Unchangeable
F0-04	0xF004	Customized No.	0–9999	0	-	Unchangeable
F1-00	0xF100	Bus undervoltage threshold	150 V to 440 V	330	V	Real time
F1-01	0xF101	Bus overvoltage threshold	300 V to 820 V	820	V	Real time
F1-02	0xF102	Braking unit action start voltage	300 V to 820 V	750	V	Real time
F1-03	0xF103	Braking transistor open circuit	0: Disable 1: Enable	1	-	Real time
F1-04	0xF104	Braking transistor short circuit	0: Disable 1: Enable	1	-	Real time
F1-05	0xF105	Input phase loss	0: Disable 1: Enable 2: Warning	2	-	Real time
F1-06	0xF106	Input overvoltage	0: Disable 1: Enable 2: Warning	2	-	Real time
F1-07	0xF107	Fan fault	0: Disable 1: Enable 2: Warning	1	-	Real time
F1-09	0xF109	Fan control	0: Running in one direction 1: Forward and reverse running	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-00	0xF400	DI1 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-01	0xF401	DI1 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-02	0xF402	DI2 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-03	0xF403	DI2 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-04	0xF404	DI3 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-05	0xF405	DI3 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-06	0xF406	DI4 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-07	0xF407	DI4 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-08	0xF408	DI5 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-09	0xF409	DI5 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-10	0xF40A	DI6 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-11	0xF40B	DI6 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-12	0xF40C	DI7 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-13	0xF40D	DI7 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-14	0xF40E	DI8 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop
F4-15	0xF40F	DI8 function	0: No function 1: Enable running 2: Incoming circuit breaker feedback 3: Auxiliary circuit breaker feedback 4: Residual current circuit breaker feedback 5: Fault reset 6: Prohibit drive unit from running 7: Drive unit coasts to stop 8: Drive unit stops according to preset mode	0	-	At stop
F4-16	0xF410	DI1 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-17	0xF411	DI2 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-18	0xF412	DI3 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-19	0xF413	DI4 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-20	0xF414	DI5 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-21	0xF415	DI6 valid delay time	0.00s to 600.00s	0.00	s	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-22	0xF416	DI7 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-23	0xF417	DI8 valid delay time	0.00s to 600.00s	0.00	s	Real time
F4-24	0xF418	DI1 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-25	0xF419	DI2 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-26	0xF41A	DI3 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-27	0xF41B	DI4 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-28	0xF41C	DI5 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-29	0xF41D	DI6 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-30	0xF41E	DI7 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-31	0xF41F	DI8 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F4-32	0xF420	DI (DI1 to DI5) active mode	Ones position: 0: Active low 1: Active high Tens position: 0: Active low 1: Active high Hundreds position: 0: Active low 1: Active high Thousands position: 0: Active low 1: Active high Ten thousands position: 0: Active low 1: Active high	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-33	0xF421	DI (DI6 to DI8) active mode	Ones position: 0: Active low 1: Active high Tens position: 0: Active low 1: Active high Hundreds position: 0: Active low 1: Active high Thousands position: 0: Active low 1: Active high Ten thousands position: 0: Active low 1: Active high	0	-	Real time
F5-00	0xF500	DO1/RO1 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-01	0xF501	DO1/RO1 output function	0: No function 1: Ready to run 2: Fault 3: Warning 4: Circuit breaker action 5: Bus undervoltage 6: Bus overvoltage 7: Bus voltage normal 8: Three-phase input abnormal 9: Three-phase input normal 10: Module overheat 11: Module overheat warning 12: Communication control 13: System fault 14: Fault/Warning	0	-	At stop
F5-02	0xF502	DO2/RO2 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-03	0xF503	DO2/RO2 output function	0: No function 1: Ready to run 2: Fault 3: Warning 4: Circuit breaker action 5: Bus undervoltage 6: Bus overvoltage 7: Bus voltage normal 8: Three-phase input abnormal 9: Three-phase input normal 10: Module overheat 11: Module overheat warning 12: Communication control 13: System fault 14: Fault/Warning	0	-	At stop
F5-04	0xF504	DO3/RO3 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-05	0xF505	DO3/RO3 output function	0: No function 1: Ready to run 2: Fault 3: Warning 4: Circuit breaker action 5: Bus undervoltage 6: Bus overvoltage 7: Bus voltage normal 8: Three-phase input abnormal 9: Three-phase input normal 10: Module overheat 11: Module overheat warning 12: Communication control 13: System fault 14: Fault/Warning	0	-	At stop
F5-06	0xF506	DO4/RO4 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-07	0xF507	DO4/RO4 output function	0: No function 1: Ready to run 2: Fault 3: Warning 4: Circuit breaker action 5: Bus undervoltage 6: Bus overvoltage 7: Bus voltage normal 8: Three-phase input abnormal 9: Three-phase input normal 10: Module overheat 11: Module overheat warning 12: Communication control 13: System fault 14: Fault/Warning	0	-	At stop
F5-08	0xF508	DO5/RO5 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-09	0xF509	DO5/RO5 output function	0: No function 1: Ready to run 2: Fault 3: Warning 4: Circuit breaker action 5: Bus undervoltage 6: Bus overvoltage 7: Bus voltage normal 8: Three-phase input abnormal 9: Three-phase input normal 10: Module overheat 11: Module overheat warning 12: Communication control 13: System fault 14: Fault/Warning	0	-	At stop
F5-10	0xF50A	DO1/RO1 valid delay time	0.00s to 600.00s	0.00	s	Real time
F5-11	0xF50B	DO2/RO2 valid delay time	0.00s to 600.00s	0.00	s	Real time
F5-12	0xF50C	DO3/RO3 valid delay time	0.00s to 600.00s	0.00	s	Real time
F5-13	0xF50D	DO4/RO4 valid delay time	0.00s to 600.00s	0.00	s	Real time
F5-14	0xF50E	DO5/RO5 valid delay time	0.00s to 600.00s	0.00	s	Real time
F5-15	0xF50F	DO1/RO1 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F5-16	0xF510	DO2/RO2 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F5-17	0xF511	DO3/RO3 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F5-18	0xF512	DO4/RO4 invalid delay time	0.00s to 600.00s	0.00	s	Real time
F5-19	0xF513	DO5/RO5 invalid delay time	0.00s to 600.00s	0.00	s	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-20	0xF514	DO/RO output active mode	Ones position: 0: Active high 1: Active low Tens position: 0: Active high 1: Active low Hundreds position: 0: Active high 1: Active low Thousands position: 0: Active high 1: Active low Ten thousands position: 0: Active high 1: Active low	0	-	Real time
F5-21	0xF515	Circuit breaker action threshold	0 V to 1000 V	570	V	Real time
FA-00	0xFA00	Fault code of the 5th fault (latest)	0	0	-	Unchangeable
FA-01	0xFA01	Fault subcode of the 5th fault	0	0	-	Unchangeable
FA-02	0xFA02	Bus voltage upon the 5th fault	0.0 V	0.0	V	Unchangeable
FA-03	0xFA03	Heatsink temperature upon the 5th fault	0°C	0	°C	Unchangeable
FA-04	0xFA04	Ambient temperature upon the 5th fault	0°C	0	°C	Unchangeable
FA-06	0xFA06	Grid voltage (U _{sr}) upon the 5th fault	0 V	0	V	Unchangeable
FA-07	0xFA07	Grid voltage (U _{st}) upon the 5th fault	0 V	0	V	Unchangeable
FA-08	0xFA08	Grid voltage (U _{tr}) upon the 5th fault	0 V	0	V	Unchangeable
FA-09	0xFA09	Three-phase imbalance degree upon the 5th fault	0.00%	0.00	%	Unchangeable
FA-10	0xFA0A	DI status upon the 5th fault	0	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-11	0xFA0B	DO/RO status upon the 5th fault	0	0	-	Unchangeable
FA-12	0xFA0C	Stop command sent by the power supply unit upon the 5th fault	1: Ready to run 2: Coast to stop 3: Stop according to the preset mode	0	-	Unchangeable
FA-13	0xFA0D	Total power-on time (in hours) upon the 5th fault	0 h	0	h	Unchangeable
FA-14	0xFA0E	Total power-on time (in minutes) upon the 5th fault	0 min	0	min	Unchangeable
FA-15	0xFA0F	Total power-on time (in seconds) upon the 5th fault	0s	0	s	Unchangeable
FA-20	0xFA14	Fault code upon the 4th fault (second latest)	0	0	-	Unchangeable
FA-21	0xFA15	Fault subcode of the 4th fault	0	0	-	Unchangeable
FA-22	0xFA16	Bus voltage upon the 4th fault	0.0 V	0.0	V	Unchangeable
FA-23	0xFA17	Heatsink temperature upon the 4th fault	0°C	0	°C	Unchangeable
FA-24	0xFA18	Ambient temperature upon the 4th fault	0°C	0	°C	Unchangeable
FA-26	0xFA1A	Grid voltage (U _{sr}) upon the 4th fault	0 V	0	V	Unchangeable
FA-27	0xFA1B	Grid voltage (U _{st}) upon the 4th fault	0 V	0	V	Unchangeable
FA-28	0xFA1C	Grid voltage (U _{tr}) upon the 4th fault	0 V	0	V	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-29	0xFA1D	Three-phase imbalance degree upon the 4th fault	0.00%	0.00	%	Unchangeable
FA-30	0xFA1E	DI status upon the 4th fault	0	0	-	Unchangeable
FA-31	0xFA1F	DO/RO status upon the 4th fault	0	0	-	Unchangeable
FA-32	0xFA20	Stop command sent by the power supply unit upon the 4th fault	1: Ready to run 2: Coast to stop 3: Stop according to the preset mode	0	-	Unchangeable
FA-33	0xFA21	Total power-on time (in hours) upon the 4th fault	0 h	0	h	Unchangeable
FA-34	0xFA22	Total power-on time (in minutes) upon the 4th fault	0 min	0	min	Unchangeable
FA-35	0xFA23	Total power-on time (in seconds) upon the 4th fault	0s	0	s	Unchangeable
FA-40	0xFA28	Fault code upon the 3rd fault (third latest)	0	0	-	Unchangeable
FA-41	0xFA29	Fault subcode of the 3rd fault	0	0	-	Unchangeable
FA-42	0xFA2A	Bus voltage upon the 3rd fault	0.0 V	0.0	V	Unchangeable
FA-43	0xFA2B	Heatsink temperature upon the 3rd fault	0°C	0	°C	Unchangeable
FA-44	0xFA2C	Ambient temperature upon the 3rd fault	0°C	0	°C	Unchangeable
FA-46	0xFA2E	Grid voltage (Usr) upon the 3rd fault	0 V	0	V	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-47	0xFA2F	Grid voltage (Ust) upon the 3rd fault	0 V	0	V	Unchangeable
FA-48	0xFA30	Grid voltage (Utr) upon the 3rd fault	0 V	0	V	Unchangeable
FA-49	0xFA31	Three-phase imbalance degree upon the 3rd fault	0.00%	0.00	%	Unchangeable
FA-50	0xFA32	DI status upon the 3rd fault	0	0	-	Unchangeable
FA-51	0xFA33	DO/RO status upon the 3rd fault	0	0	-	Unchangeable
FA-52	0xFA34	Stop command sent by the power supply unit upon the 3rd fault	1: Ready to run 2: Coast to stop 3: Stop according to the preset mode	0	-	Unchangeable
FA-53	0xFA35	Total power-on time (in hours) upon the 3rd fault	0 h	0	h	Unchangeable
FA-54	0xFA36	Total power-on time (minute) upon the 3rd fault	0 min	0	min	Unchangeable
FA-55	0xFA37	Total power-on time (in seconds) upon the 3rd fault	0s	0	s	Unchangeable
FA-60	0xFA3C	Fault code upon the 2nd fault (fourth latest)	0s	0	s	Unchangeable
FA-61	0xFA3D	Fault subcode upon the 2nd fault	0	0	-	Unchangeable
FA-62	0xFA3E	Bus voltage upon the 2nd fault	0.0 V	0.0	V	Unchangeable
FA-63	0xFA3F	Heatsink temperature upon the 2nd fault	0°C	0	°C	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-64	0xFA40	Ambient temperature upon the 2nd fault	0°C	0	°C	Unchangeable
FA-66	0xFA42	Grid voltage (U _{sr}) upon the 2nd fault	0 V	0	V	Unchangeable
FA-67	0xFA43	Grid voltage (U _{st}) upon the 2nd fault	0 V	0	V	Unchangeable
FA-68	0xFA44	Grid voltage (U _{tr}) upon the 2nd fault	0 V	0	V	Unchangeable
FA-69	0xFA45	Three-phase imbalance degree upon the 2nd fault	0.00%	0.00	%	Unchangeable
FA-70	0xFA46	DI status upon the 2nd fault	0	0	-	Unchangeable
FA-71	0xFA47	DO/RO status upon the 2nd fault	0	0	-	Unchangeable
FA-72	0xFA48	Stop command sent by the power supply unit upon the 2nd fault	1: Ready to run 2: Coast to stop 3: Stop according to the preset mode	0	-	Unchangeable
FA-73	0xFA49	Total power-on time (in hours) upon the 2nd fault	0 h	0	h	Unchangeable
FA-74	0xFA4A	Total power-on time (in minutes) upon the 2nd fault	0 min	0	min	Unchangeable
FA-75	0xFA4B	Total power-on time (in seconds) upon the 2nd fault	0s	0	s	Unchangeable
FA-80	0xFA50	Fault code upon the 1st fault (fifth latest)	0	0	-	Unchangeable
FA-81	0xFA51	Fault subcode upon the 1st fault	0	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-82	0xFA52	Bus voltage upon the 1st fault	0.0 V	0.0	V	Unchangeable
FA-83	0xFA53	Heatsink temperature upon the 1st fault	0°C	0	°C	Unchangeable
FA-84	0xFA54	Ambient temperature upon the 1st fault	0°C	0	°C	Unchangeable
FA-86	0xFA56	Grid voltage (U _{sr}) upon the 1st fault	0 V	0	V	Unchangeable
FA-87	0xFA57	Grid voltage (U _{st}) upon the 1st fault	0 V	0	V	Unchangeable
FA-88	0xFA58	Grid voltage (U _{tr}) upon the 1st fault	0 V	0	V	Unchangeable
FA-89	0xFA59	Three-phase imbalance degree upon the 1st fault	0.00%	0.00	%	Unchangeable
FA-90	0xFA5A	DI status upon the 1st fault	0	0	-	Unchangeable
FA-91	0xFA5B	DO/RO status upon the 1st fault	0	0	-	Unchangeable
FA-92	0xFA5C	Stop command sent by the power supply unit upon the 1st fault	1: Ready to run 2: Coast to stop 3: Stop according to the preset mode	0	-	Unchangeable
FA-93	0xFA5D	Total power-on time (in hours) upon the 1st fault	0 h	0	h	Unchangeable
FA-94	0xFA5E	Total power-on time (in minutes) upon the 1st fault	0 min	0	min	Unchangeable
FA-95	0xFA5F	Total power-on time (in seconds) upon the 1st fault	0s	0	s	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-00	0xFD00	RS485 baud rate	0: 300 bps 1: 600 bps 2: 1200 bps 3: 2400 bps 4: 4800 bps 5: 9600 bps 6: 19200 bps 7: 38400 bps 8: 57600 bps 9: 115200 bps	5	-	At stop
FD-01	0xFD01	RS485 data format	0: No check (8-N-2) 1: Even parity check (8-E-1) 2: Odd parity check (8-O-1) 3: No check (8-N-1) 4: No check (7-N-2) 5: Even parity check (7-E-1) 6: Odd parity check (7-O-1) 7: No check (7-N-1)	0	-	Real time
FD-02	0xFD02	RS485 local address	1–127	16	-	Unchangeable
FD-03	0xFD03	RS485 response delay	0 ms to 20 ms	2	ms	Real-time
FD-04	0xFD04	RS485 communication timeout time	0.0s to 60.0s	0.0	s	Real time
FD-06	0xFD06	Automatic reset upon communication fault	0: Disable 1: Enable	1	-	Real time
FD-07	0xFD07	Maximum number of automatically assigned stations	0–8	0	-	Real time
FD-09	0xFD09	Communication state	0: CANopen 0: Stop 1: Initialization 2: Pre-running 8: Running 0: CANlink 0: Stop 1: Initialization 2: Pre-running 8: Running	0	-	Unchangeable
FD-10	0xFD0A	Communication type	1: CANopen 2: CANlink 3: Communication card mode	1	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-12	0xFD0C	CAN baud rate	0: 20 kbps 1: 50 kbps 2: 100 kbps 3: 125 kbps 4: 250 kbps 5: 500 kbps 6: 1 Mbps	5	-	Real time
FD-13	0xFD0D	CAN station number	1–127	16	-	Unchangeable
FD-14	0xFD0E	Number of CAN frames received per unit time (real time)	0–65535	0	-	Unchangeable
FD-15	0xFD0F	Maximum number of error frames received by node (real time)	0–65535	0	-	Unchangeable
FD-16	0xFD10	Maximum value of error frames sent by node (real time)	0–65535	0	-	Unchangeable
FD-17	0xFD11	Number of bus disconnection times per unit of time	0–65535	0	-	Unchangeable
FD-18	0xFD12	Power supply unit No.	1–15	1	-	Real time
FD-19	0xFD13	CAN communication disconnection coefficient	1–15	1	-	Real time
FD-34	0xFD22	CANopen mode	0: Standard mode 1: Expert mode	0	-	Real time
FD-35	0xFD23	CANopen prohibition time	0–65535	0	-	Real time
FD-36	0xFD24	CANopen event time	0–65535	0	-	Real time
FD-39	0xFD27	Function enabling bit configuration of AC drive station number	0: Disable 1: Enable	0	-	Real time
FD-40	0xFD28	Manually set value of power supply unit station number	0–127	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-41	0xFD29	Manually set value of drive unit 1 station number	0–127	0	-	Real time
FD-42	0xFD2A	Manually set value of drive unit 2 station number	0–127	0	-	Real time
FD-43	0xFD2B	Manually set value of drive unit 3 station number	0–127	0	-	Real time
FD-44	0xFD2C	Manually set value of drive unit 4 station number	0–127	0	-	Real time
FD-45	0xFD2D	Manually set value of drive unit 5 station number	0–127	0	-	Real time
FD-46	0xFD2E	Manually set value of drive unit 6 station number	0–127	0	-	Real time
FD-47	0xFD2F	Manually set value of drive unit 7 station number	0–127	0	-	Real time
FD-48	0xFD30	Manually set value of drive unit 8 station number	0–127	0	-	Real time
FD-50	0xFD32	Startup with slave loss	0: Disable 1: Enable	0	-	Real time
FD-51	0xFD33	Network bridge data interaction period	0 ms to 65535 ms	0	ms	Unchangeable
FD-52	0xFD34	Number of online slaves	0–30	0	-	Unchangeable
FD-53	0xFD35	Slave online state (1-15)	0–65535	0	-	Unchangeable
FD-54	0xFD36	Slave online state (16-31)	0–65535	0	-	Unchangeable
FD-55	0xFD37	PN timeout time	0 ms to 65535 ms	0	ms	Real time
FD-56	0xFD38	PN chip state	0–65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-57	0xFD39	Communication card state	0: Initialization 1: Running 2: Stop 3: Reconnecting	0	-	Unchangeable
FD-61	0xFD3D	MAC address 1	0-65535	0	-	Unchangeable
FD-62	0xFD3E	MAC address 2	0-65535	0	-	Unchangeable
FD-63	0xFD3F	MAC address 3	0-65535	0	-	Unchangeable
FD-70	0xFD46	EtherCAT station name	0-65535	0	-	Unchangeable
FD-71	0xFD47	EtherCAT station alias	0-65535	0	-	Real time
FD-72	0xFD48	Number of times for synchronization interruption signal loss allowed by the EtherCAT module	0-30	10	-	Real time
FD-73	0xFD49	CRC check error of EtherCAT port 0	0-65535	0	-	Unchangeable
FD-74	0xFD4A	CRC check error of EtherCAT port 1	0-65535	0	-	Unchangeable
FD-75	0xFD4B	Data transfer error of EtherCAT port 0 and port 1	0-65535	0	-	Unchangeable
FD-76	0xFD4C	EtherCAT processing unit and PDI error	0-65535	0	-	Unchangeable
FD-77	0xFD4D	Link loss of EtherCAT port 0 and port 1	0-65535	0	-	Unchangeable
FD-78	0xFD4E	EtherCAT host type	0-65535	0	-	Real time
FD-79	0xFD4F	EtherCAT synchronization error monitoring mode	0-65535	0	-	Real time
FD-80	0xFD50	Number of lost EtherCAT synchronization frames	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-81	0xFD51	EtherCAT state machine and PHYLink state	0–65535	0	-	Unchangeable
FD-82	0xFD52	EtherCAT - AL fault code	0–65535	0	-	Unchangeable
FD-83	0xFD53	EtherCAT - XML file version	0.00–655.35	0.00	-	Unchangeable
FD-84	0xFD54	EtherCAT - FPGA firmware version	0–65535	0	-	Unchangeable
FD-85	0xFD55	Station alias backup display	0–65535	0	-	Unchangeable
FD-86	0xFD56	EtherCAT - EEPROM reading time	0–65535	0	-	Real time
FD-87	0xFD57	EtherCAT - DC gain	0–65535	0	-	Real time
FD-88	0xFD58	EtherCAT - DC acceleration limit	0–65535	0	-	Real time
FD-89	0xFD59	EtherCAT - DC speed limit	0–65535	0	-	Real time
FD-90	0xFD5A	EtherCAT - DC integral coefficient	0–65535	0	-	Real time
FD-91	0xFD5B	Communication card version	0.00–655.35	0.00	-	Unchangeable
FD-92	0xFD5C	Communication version	0.00–655.35	0.00	-	Unchangeable
FD-93	0xFD5D	Station number of device connected to expansion card slot 1	0–65535	0	-	Unchangeable
FD-94	0xFD5E	Station number of device connected to expansion card slot 2	0–65535	0	-	Unchangeable
FD-95	0xFD5F	Station number of the device connected to expansion card slot 3	0–65535	0	-	Unchangeable
FD-96	0xFD60	Station number of device connected to reserved slot 4	0–65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-97	0xFD61	Station number of device connected to reserved slot 5	0-65535	0	-	Unchangeable
FD-98	0xFD62	Station number of device connected to reserved slot 6	0-65535	0	-	Unchangeable
FD-99	0xFD63	Station number of the device connected to reserved slot 7	0-65535	0	-	Unchangeable
FF-00	0xFF00	Manufacturer password	0-65535	0	-	Real time
FF-01	0xFF01	Model	0 to 2	0	-	Real time
FF-02	0xFF02	Power rating	0.0 kW to 999.9 kW	3.7	kW	Real time
FF-03	0xFF03	Voltage class	0 V to 999 V	380	V	Real time
FF-05	0xFF05	Bus voltage correction coefficient	80.0-140.0	100.0	-	Real time
FF-10	0xFF0A	Memory address view	0	0	-	Real time
FF-11	0xFF0B	Parameter group display setting 1	0-11111	11111	-	Real time
FF-12	0xFF0C	Parameter group display setting 2	0-11111	0	-	Real time
FF-13	0xFF0D	Parameter group display setting 4	0-11111	11111	-	Real time
FF-14	0xFF0E	Three-phase input imbalance detection threshold	3.00% to 10.00%	10.00	%	Real-time
FF-15	0xFF0F	Parameter group display setting 3	0-11111	11111	-	Real time
FF-17	0xFF11	Urs line voltage correction coefficient	80.0% to 140.0%	100.0	%	Real time
FF-18	0xFF12	Ust line voltage correction coefficient	80.0% to 140.0%	100.0	%	Real time
FF-19	0xFF13	Utr line voltage correction coefficient	80.0% to 140.0%	100.0	%	Real time
FP-00	0x1F00	User password	0 to 65535	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FP-01	0x1F01	Parameters initialization	0: No operation 1: Restore to factory settings 2: Clear records 4: Back up current user parameters 501: Restore user backup parameters	1	-	Real time
FP-03	0x1F03	Monitoring parameter display	Bit 0: Bus voltage Bit 1: Heatsink temperature Bit 2: Ambient temperature Bit 3: Ustr line voltage Bit 4: Ust line voltage Bit 5: Utr line voltage Bit 6: Three-phase imbalance degree	79	-	Real time
FP-05	0x1F05	I/O card parameter restoration	0: Invalid 1: Expansion card I/O card 1 2: Expansion card I/O card 2 3: Expansion card I/O card 3 255: All expansion I/O cards	0	-	Real time
FP-06	0x1F06	Local parameter backup mode	1: Copy all parameters 2: Copy non-motor parameters	2	-	Real time
FP-07	0x1F07	Local parameter backup operation	0–28	0	-	Real time
A0-00	0xA000	I/O expansion card communication cycle	0 to 100	0	-	Real time
A0-01	0xA001	Alarm threshold of consecutive drive unit frame loss	0 to 1000	10	-	Real time
A0-02	0xA002	Alarm threshold of consecutive I/O expansion card frame loss	0 to 1000	10	-	Real time
A0-03	0xA003	Station number display of drive unit with frame loss	Bit 0: Drive unit 1 Bit 1: Drive unit 2 Bit 2: Drive unit 3 Bit 3: Drive unit 4 Bit 4: Drive unit 5 Bit 5: Drive unit 6 Bit 6: Drive unit 7 Bit 7: Drive unit 8	0	-	Unchangeable
A0-04	0xA004	Station number display of I/O expansion card with frame loss	Bit 0: I/O expansion card 1 Bit 1: I/O expansion card 2 Bit 2: I/O expansion card 3	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A0-05	0xA005	Frame loss count of axis 1	0–65535	0	-	Unchangeable
A0-06	0xA006	Frame loss count of axis 2	0–65535	0	-	Unchangeable
A0-07	0xA007	Frame loss count of axis 3	0–65535	0	-	Unchangeable
A0-08	0xA008	Frame loss count of axis 4	0–65535	0	-	Unchangeable
A0-09	0xA009	Frame loss count of axis 5	0–65535	0	-	Unchangeable
A0-10	0xA00A	Frame loss count of axis 6	0–65535	0	-	Unchangeable
A0-11	0xA00B	Frame loss count of axis 7	0–65535	0	-	Unchangeable
A0-12	0xA00C	Frame loss count of axis 8	0–65535	0	-	Unchangeable
A0-13	0xA00D	Frame loss count of expansion card 1	0–65535	0	-	Unchangeable
A0-14	0xA00E	Frame loss count of expansion card 2	0–65535	0	-	Unchangeable
A0-15	0xA00F	Frame loss count of expansion card 3	0–65535	0	-	Unchangeable
A1-00	0xA100	Power supply unit - filter time of DI1 to DI4	0.000s to 5.000s	0.010	s	Real time
A1-01	0xA101	Power supply unit - filter time of DI5 to DI8	0.000s to 5.000s	0.010	s	Real time
A1-05	0xA105	Power supply unit - AI1 filter time	0.00s to 10.00s	0.10	s	Real time
A1-06	0xA106	Power supply unit - AI2 filter time	0.00s to 10.00s	0.10	s	Real time
A1-10	0xA10A	Power supply unit - AI1 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A1-11	0xA10B	Power supply unit - AI2 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop
A2-00	0xA200	Expansion card 1 - filter time of DI1 to DI4	0.000s to 5.000s	0.010	s	Real time
A2-01	0xA201	Expansion card 1 - filter time of DI5 to DI8	0.000s to 5.000s	0.010	s	Real time
A2-05	0xA205	Expansion card 1 - AI1 filter time	0.00s to 10.00s	0.10	s	Real time
A2-06	0xA206	Expansion card 1 - AI2 filter time	0.00s to 10.00s	0.10	s	Real time
A2-10	0xA20A	Expansion card 1 - AI1 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop
A2-11	0xA20B	Expansion card 1 - AI2 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop
A3-00	0xA300	Expansion card 2 - filter time of DI1 to DI4	0.000s to 5.000s	0.010	s	Real time
A3-01	0xA301	Expansion card 2 - filter time of DI5 to DI8	0.000s to 5.000s	0.010	s	Real time
A3-05	0xA305	Expansion card 2 - AI1 filter time	0.00s to 10.00s	0.10	s	Real time
A3-06	0xA306	Expansion card 2 - AI2 filter time	0.00s to 10.00s	0.10	s	Real time
A3-10	0xA30A	Expansion card 2 - AI1 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A3-11	0xA30B	Expansion card 2 - AI2 input	0: Voltage input 1: Current input 2: PT100 input 3: PT1000 input 4: KTY84 input 5: PTC130 input	0	-	At stop
AC-00	0xAC00	Power supply unit - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-01	0xAC01	Power supply unit - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-02	0xAC02	Power supply unit - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-03	0xAC03	Power supply unit - AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-04	0xAC04	Power supply unit - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-05	0xAC05	Power supply unit - AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-06	0xAC06	Power supply unit - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-07	0xAC07	Power supply unit - AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-08	0xAC08	Expansion card 1- AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-09	0xAC09	Expansion card 1- AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AC-10	0xAC0A	Expansion card 1 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-11	0xAC0B	Expansion card 1-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-12	0xAC0C	Expansion card 1 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-13	0xAC0D	Expansion card 1-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-14	0xAC0E	Expansion card 1 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-15	0xAC0F	Expansion card 1-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-16	0xAC10	Expansion card 2 - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-17	0xAC11	Expansion card 2 - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-18	0xAC12	Expansion card 2 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-19	0xAC13	Expansion card 2-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-20	0xAC14	Expansion card 2 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-21	0xAC15	Expansion card 2-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-22	0xAC16	Expansion card 2 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-23	0xAC17	Expansion card 2-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-24	0xAC18	Expansion card 3 - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AC-25	0xAC19	Expansion card 3 - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-26	0xAC1A	Expansion card 3 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-27	0xAC1B	Expansion card 3-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-28	0xAC1C	Expansion card 3 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-29	0xAC1D	Expansion card 3-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AC-30	0xAC1E	Expansion card 3 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AC-31	0xAC1F	Expansion card 3-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AD-00	0xAD00	DHCP/BOOTP function	0: Disable 1: Enable	0	-	Real time
AD-01	0xAD01	Most significant byte of the IP address	1–254	192	-	Real time
AD-02	0xAD02	Second most significant byte of the IP address	0–254	168	-	Real time
AD-03	0xAD03	Third most significant byte of the IP address	0–254	1	-	Real time
AD-04	0xAD04	Least significant byte of the IP address	1–253	6	-	Real time
AD-05	0xAD05	Most significant byte of the subnet mask	0–255	255	-	Real time
AD-06	0xAD06	Second most significant byte of the subnet mask	0–255	255	-	Real time
AD-07	0xAD07	Third most significant byte of the subnet mask	0–255	255	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AD-08	0xAD08	Least significant byte of the subnet mask	0–255	0	-	Real time
AD-09	0xAD09	Most significant byte of the gateway IP address	1–254	192	-	Real time
AD-10	0xAD0A	Second most significant byte of the gateway IP address	0–254	168	-	Real time
AD-11	0xAD0B	Third most significant byte of the gateway IP address	0–254	1	-	Real time
AD-12	0xAD0C	Least significant byte of the gateway IP address	0–254	1	-	Real time
AD-13	0xAD0D	Switch commissioning address	0–65535	0	-	Real time
AD-14	0xAD0E	Switch commissioning data	0–65535	0	-	Real time
AD-15	0xAD0F	Switch commissioning control value	0 to 2	0	-	Real time
AE-00	0xAE00	Local AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-01	0xAE01	Local AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-02	0xAE02	Local AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-03	0xAE03	Local AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-04	0xAE04	Local AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-05	0xAE05	Local AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AE-06	0xAE06	Local AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-07	0xAE07	Local AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-08	0xAE08	Expansion card 1 - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-09	0xAE09	Expansion card 1 - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-10	0xAE0A	Expansion card 1 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-11	0xAE0B	Expansion card 1-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-12	0xAE0C	Expansion card 1 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-13	0xAE0D	Expansion card 1-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-14	0xAE0E	Expansion card 1 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-15	0xAE0F	Expansion card 1-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-16	0xAE10	Expansion card 2 - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-17	0xAE11	Expansion card 2 - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-18	0xAE12	Expansion card 2 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-19	0xAE13	Expansion card 2-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-20	0xAE14	Expansion card 2 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AE-21	0xAE15	Expansion card 2-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-22	0xAE16	Expansion card 2 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-23	0xAE17	Expansion card 2-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-24	0xAE18	Expansion card 3 - AI1 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-25	0xAE19	Expansion card 3 - AI1 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-26	0xAE1A	Expansion card 3 - AI1 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-27	0xAE1B	Expansion card 3-AI1 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-28	0xAE1C	Expansion card 3 - AI2 measured voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-29	0xAE1D	Expansion card 3-AI2 displayed voltage 1	0.000 V to 12.000 V	2.000	V	Real time
AE-30	0xAE1E	Expansion card 3 - AI2 measured voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AE-31	0xAE1F	Expansion card 3-AI2 displayed voltage 2	0.000 V to 12.000 V	2.000	V	Real time
AF-00	0xAF00	RPDO1-SubIndex0-H	0–65535	0	-	Real time
AF-01	0xAF01	RPDO1-SubIndex0-L	0–65535	0	-	Real time
AF-02	0xAF02	RPDO1-SubIndex1-H	0–65535	0	-	Real time
AF-03	0xAF03	RPDO1-SubIndex1-L	0–65535	0	-	Real time
AF-04	0xAF04	RPDO1-SubIndex2-H	0–65535	0	-	Real time
AF-05	0xAF05	RPDO1-SubIndex2-L	0–65535	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AF-06	0xAF06	RPDO1-SubIndex3-H	0-65535	0	-	Real time
AF-07	0xAF07	RPDO1-SubIndex3-L	0-65535	0	-	Real time
AF-08	0xAF08	RPDO2-SubIndex0-H	0-65535	0	-	Real time
AF-09	0xAF09	RPDO2-SubIndex0-L	0-65535	0	-	Real time
AF-10	0xAF0A	RPDO2-SubIndex1-H	0-65535	0	-	Real time
AF-11	0xAF0B	RPDO2-SubIndex1-L	0-65535	0	-	Real time
AF-12	0xAF0C	RPDO2-SubIndex2-H	0-65535	0	-	Real time
AF-13	0xAF0D	RPDO2-SubIndex2-L	0-65535	0	-	Real time
AF-14	0xAF0E	RPDO2-SubIndex3-H	0-65535	0	-	Real time
AF-15	0xAF0F	RPDO2-SubIndex3-L	0-65535	0	-	Real time
AF-16	0xAF10	RPDO3-SubIndex0-H	0-65535	0	-	Real time
AF-17	0xAF11	RPDO3-SubIndex0-L	0-65535	0	-	Real time
AF-18	0xAF12	RPDO3-SubIndex1-H	0-65535	0	-	Real time
AF-19	0xAF13	RPDO3-SubIndex1-L	0-65535	0	-	Real time
AF-20	0xAF14	RPDO3-SubIndex2-H	0-65535	0	-	Real time
AF-21	0xAF15	RPDO3-SubIndex2-L	0-65535	0	-	Real time
AF-22	0xAF16	RPDO3-SubIndex3-H	0-65535	0	-	Real time
AF-23	0xAF17	RPDO3-SubIndex3-L	0-65535	0	-	Real time
AF-24	0xAF18	RPDO4-SubIndex0-H	0-65535	0	-	Real time
AF-25	0xAF19	RPDO4-SubIndex0-L	0-65535	0	-	Real time
AF-26	0xAF1A	RPDO4-SubIndex1-H	0-65535	0	-	Real time
AF-27	0xAF1B	RPDO4-SubIndex1-L	0-65535	0	-	Real time
AF-28	0xAF1C	RPDO4-SubIndex2-H	0-65535	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AF-29	0xAF1D	RPDO4-SubIndex2-L	0-65535	0	-	Real time
AF-30	0xAF1E	RPDO4-SubIndex3-H	0-65535	0	-	Real time
AF-31	0xAF1F	RPDO4-SubIndex3-L	0-65535	0	-	Real time
AF-32	0xAF20	TPDO1-SubIndex0-H	0-65535	0	-	Real time
AF-33	0xAF21	TPDO1-SubIndex0-L	0-65535	0	-	Real time
AF-34	0xAF22	TPDO1-SubIndex1-H	0-65535	0	-	Real time
AF-35	0xAF23	TPDO1-SubIndex1-L	0-65535	0	-	Real time
AF-36	0xAF24	TPDO1-SubIndex2-H	0-65535	0	-	Real time
AF-37	0xAF25	TPDO1-SubIndex2-L	0-65535	0	-	Real time
AF-38	0xAF26	TPDO1-SubIndex3-H	0-65535	0	-	Real time
AF-39	0xAF27	TPDO1-SubIndex3-L	0-65535	0	-	Real time
AF-40	0xAF28	TPDO2-SubIndex0-H	0-65535	0	-	Real time
AF-41	0xAF29	TPDO2-SubIndex0-L	0-65535	0	-	Real time
AF-42	0xAF2A	TPDO2-SubIndex1-H	0-65535	0	-	Real time
AF-43	0xAF2B	TPDO2-SubIndex1-L	0-65535	0	-	Real time
AF-44	0xAF2C	TPDO2-SubIndex2-H	0-65535	0	-	Real time
AF-45	0xAF2D	TPDO2-SubIndex2-L	0-65535	0	-	Real time
AF-46	0xAF2E	TPDO2-SubIndex3-H	0-65535	0	-	Real time
AF-47	0xAF2F	TPDO2-SubIndex3-L	0-65535	0	-	Real time
AF-48	0xAF30	TPDO3-SubIndex0-H	0-65535	0	-	Real time
AF-49	0xAF31	TPDO3-SubIndex0-L	0-65535	0	-	Real time
AF-50	0xAF32	TPDO3-SubIndex1-H	0-65535	0	-	Real time
AF-51	0xAF33	TPDO3-SubIndex1-L	0-65535	0	-	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AF-52	0xAF34	TPDO3-SubIndex2-H	0-65535	0	-	Real time
AF-53	0xAF35	TPDO3-SubIndex2-L	0-65535	0	-	Real time
AF-54	0xAF36	TPDO3-SubIndex3-H	0-65535	0	-	Real time
AF-55	0xAF37	TPDO3-SubIndex3-L	0-65535	0	-	Real time
AF-56	0xAF38	TPDO4-SubIndex0-H	0-65535	0	-	Real time
AF-57	0xAF39	TPDO4-SubIndex0-L	0-65535	0	-	Real time
AF-58	0xAF3A	TPDO4-SubIndex1-H	0-65535	0	-	Real time
AF-59	0xAF3B	TPDO4-SubIndex1-L	0-65535	0	-	Real time
AF-60	0xAF3C	TPDO4-SubIndex2-H	0-65535	0	-	Real time
AF-61	0xAF3D	TPDO4-SubIndex2-L	0-65535	0	-	Real time
AF-62	0xAF3E	TPDO4-SubIndex3-H	0-65535	0	-	Real time
AF-63	0xAF3F	TPDO4-SubIndex3-L	0-65535	0	-	Real time
AF-66	0xAF42	Number of valid RPDOs	0 to 65535	0	-	Unchangeable
AF-67	0xAF43	Number of valid TPDOs	0 to 65535	0	-	Unchangeable
U0-00	0x7000	Bus voltage	0.0 V to 1000.0 V	0.0	V	Unchangeable
U0-01	0x7001	Heatsink temperature	-50°C to +150°C	0	°C	Unchangeable
U0-02	0x7002	Ambient temperature	-50°C to +150°C	0	°C	Unchangeable
U0-04	0x7004	Input voltage U _{sr}	0 V to 1000 V	0	V	Unchangeable
U0-05	0x7005	Input voltage U _{st}	0 V to 1000 V	0	V	Unchangeable
U0-06	0x7006	Input voltage U _{tr}	0 V to 1000 V	0	V	Unchangeable
U0-07	0x7007	Three-phase imbalance degree	0.00% to 100.00%	0.00	%	Unchangeable
U0-12	0x700C	Code of current fault	0 to 99	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U0-13	0x700D	Subcode of current fault	0–10	0	-	Unchangeable
U0-14	0x700E	Code of current warning	0 to 99	0	-	Unchangeable
U0-15	0x700F	Subcode of current warning	0–10	0	-	Unchangeable
U0-16	0x7010	Online module list	0–65535	0	-	Unchangeable
U0-17	0x7011	Number of online modules	0–65535	0	-	Unchangeable
U0-18	0x7012	Number of online I/O modules	0–65535	0	-	Unchangeable
U0-20	0x7014	Current power-on time - hour	0 hour and 65535 hours	0	h	Unchangeable
U0-21	0x7015	Current power on time - minute	0 min to 65535 min	0	min	Unchangeable
U0-22	0x7016	Current power-on time - second	0s to 65535s	0	s	Unchangeable
U0-23	0x7017	Current power on time - millisecond	0 ms to 65535 ms	0	ms	Unchangeable
U0-25	0x7019	Control command word of braking unit	0 to 1	0	-	Unchangeable
U0-27	0x701B	Running inhibition flag	0–65535	0	-	Unchangeable
U0-30	0x701E	Total power-on time - hour	0 hour and 65535 hours	0	h	Unchangeable
U0-31	0x701F	Total power-on time - minute	0 min to 65535 min	0	min	Unchangeable
U0-32	0x7020	Total power-on time - second	0s to 65535s	0	s	Unchangeable
U0-33	0x7021	Total power-on time - millisecond	0 ms to 65535 ms	0	ms	Unchangeable
U0-35	0x7023	State of power supply unit	0 to 2	0	-	Unchangeable
U2-00	0x7200	Local I/O module type	0–65535	0	-	Unchangeable
U2-01	0x7201	Local I/O module version	0.00–655.35	0.00	-	Unchangeable
U2-02	0x7202	Local I/O module - Original DI hardware resource	0–65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U2-03	0x7203	Local I/O module - Available DI hardware resource	0-65535	0	-	Unchangeable
U2-04	0x7204	Local I/O module - Original AI hardware resource	0-65535	0	-	Unchangeable
U2-05	0x7205	Local I/O module - Available AI hardware resource	0-65535	0	-	Unchangeable
U2-06	0x7206	Local I/O module - Original DO hardware resource	0-65535	0	-	Unchangeable
U2-07	0x7207	Local I/O module - Available DO hardware resource	0-65535	0	-	Unchangeable
U2-08	0x7208	Local I/O module - Original AO hardware resource	0-65535	0	-	Unchangeable
U2-09	0x7209	Local I/O module - Available AO hardware resource	0-65535	0	-	Unchangeable
U2-10	0x720A	Local I/O module - DI input	0-65535	0	-	Unchangeable
U2-11	0x720B	Local I/O module - DO output	0-65535	0	-	Unchangeable
U2-12	0x720C	Local - AI1 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U2-13	0x720D	Local - AI2 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U2-14	0x720E	Local - AI1 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U2-15	0x720F	Local - AI2 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U2-20	0x7214	Local I/O module - Condition of DI1 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U2-21	0x7215	Local I/O module - Condition of DI2 used by drive unit	0-65535	0	-	Unchangeable
U2-22	0x7216	Local I/O module - Condition of DI3 used by drive unit	0-65535	0	-	Unchangeable
U2-23	0x7217	Local I/O module - Condition of DI4 used by drive unit	0-65535	0	-	Unchangeable
U2-24	0x7218	Local I/O module - Condition of DI5 used by drive unit	0-65535	0	-	Unchangeable
U2-25	0x7219	Local I/O module - Condition of DI6 used by drive unit	0-65535	0	-	Unchangeable
U2-26	0x721A	Local I/O module - Condition of DI7 used by drive unit	0-65535	0	-	Unchangeable
U2-27	0x721B	Local I/O module - Condition of DI8 used by drive unit	0-65535	0	-	Unchangeable
U2-30	0x721E	Local I/O module - Condition of AI1 used by drive unit	0-65535	0	-	Unchangeable
U2-31	0x721F	Local I/O module - Condition of AI2 used by drive unit	0-65535	0	-	Unchangeable
U2-40	0x7228	Local I/O module - Condition of DO1 used by drive unit	0-65535	0	-	Unchangeable
U2-41	0x7229	Local I/O module - Condition of DO2 used by drive unit	0-65535	0	-	Unchangeable
U2-42	0x722A	Local I/O module - Condition of DO3 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U2-43	0x722B	Local I/O module - Condition of DO4 used by drive unit	0-65535	0	-	Unchangeable
U2-44	0x722C	Local I/O module - Condition of DO5 used by drive unit	0-65535	0	-	Unchangeable
U2-45	0x722D	Local I/O module - Condition of DO6 used by drive unit	0-65535	0	-	Unchangeable
U2-46	0x722E	Local I/O module - Condition of DO7 used by drive unit	0-65535	0	-	Unchangeable
U2-47	0x722F	Local I/O module - Condition of DO8 used by drive unit	0-65535	0	-	Unchangeable
U3-00	0x7300	Type of I/O expansion card 1	0-65535	0	-	Unchangeable
U3-01	0x7301	Version of I/O expansion card 1	0.00-655.35	0.00	-	Unchangeable
U3-02	0x7302	I/O expansion card 1 - Original DI hardware resource	0-65535	0	-	Unchangeable
U3-03	0x7303	I/O expansion card 1 - Available DI hardware resource	0-65535	0	-	Unchangeable
U3-04	0x7304	I/O expansion card 1 - Original AI hardware resource	0-65535	0	-	Unchangeable
U3-05	0x7305	I/O expansion card 1 - Available AI hardware resource	0-65535	0	-	Unchangeable
U3-06	0x7306	I/O expansion card 1 - Original DO hardware resource	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U3-07	0x7307	I/O expansion card 1 - Available DO hardware resource	0-65535	0	-	Unchangeable
U3-08	0x7308	I/O expansion card 1 - Original AO hardware resource	0-65535	0	-	Unchangeable
U3-09	0x7309	I/O expansion card 1 - Available AO hardware resource	0-65535	0	-	Unchangeable
U3-10	0x730A	I/O expansion card 1 - DI input	0-65535	0	-	Unchangeable
U3-11	0x730B	I/O expansion card 1 - DO output	0-65535	0	-	Unchangeable
U3-12	0x730C	I/O expansion card 1 - AI1 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U3-13	0x730D	I/O expansion card 1 - AI2 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U3-14	0x730E	I/O expansion card 1 - AI1 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U3-15	0x730F	I/O expansion card 1 - AI2 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U3-20	0x7314	I/O expansion card 1 - condition of DI1 used by drive unit	0-65535	0	-	Unchangeable
U3-21	0x7315	I/O expansion card 1 - condition of DI2 used by drive unit	0-65535	0	-	Unchangeable
U3-22	0x7316	I/O expansion card 1 - condition of DI3 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U3-23	0x7317	I/O expansion card 1 - condition of DI4 used by drive unit	0-65535	0	-	Unchangeable
U3-24	0x7318	I/O expansion card 1 - condition of DI5 used by drive unit	0-65535	0	-	Unchangeable
U3-25	0x7319	I/O expansion card 1 - condition of DI6 used by drive unit	0-65535	0	-	Unchangeable
U3-26	0x731A	I/O expansion card 1 - condition of DI7 used by drive unit	0-65535	0	-	Unchangeable
U3-27	0x731B	I/O expansion card 1 - condition of DI8 used by drive unit	0-65535	0	-	Unchangeable
U3-30	0x731E	I/O expansion card 1 - condition of AI1 used by drive unit	0-65535	0	-	Unchangeable
U3-31	0x731F	I/O expansion card 1 - condition of AI2 used by drive unit	0-65535	0	-	Unchangeable
U3-40	0x7328	I/O expansion card 1 - condition of DO1 used by drive unit	0-65535	0	-	Unchangeable
U3-41	0x7329	I/O expansion card 1 - condition of DO2 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U3-42	0x732A	I/O expansion card 1 - condition of DO3 used by drive unit	0–65535	0	-	Unchangeable
U3-43	0x732B	I/O expansion card 1 - condition of DO4 used by drive unit	0–65535	0	-	Unchangeable
U3-44	0x732C	I/O expansion card 1 - condition of DO5 used by drive unit	0–65535	0	-	Unchangeable
U3-45	0x732D	I/O expansion card 1 - condition of DO6 used by drive unit	0–65535	0	-	Unchangeable
U3-46	0x732E	I/O expansion card 1 - condition of DO7 used by drive unit	0–65535	0	-	Unchangeable
U3-47	0x732F	I/O expansion card 1 - condition of DO8 used by drive unit	0–65535	0	-	Unchangeable
U4-00	0x7400	Type of I/O expansion card 2	0–65535	0	-	Unchangeable
U4-01	0x7401	Version of I/O expansion card 2	0.00–655.35	0.00	-	Unchangeable
U4-02	0x7402	I/O expansion card 2 - Original DI hardware resource	0–65535	0	-	Unchangeable
U4-03	0x7403	I/O expansion card 2 - Available DI hardware resource	0–65535	0	-	Unchangeable
U4-04	0x7404	I/O expansion card 2 - Original AI hardware resource	0–65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U4-05	0x7405	I/O expansion card 2 - Available AI hardware resource	0-65535	0	-	Unchangeable
U4-06	0x7406	I/O expansion card 2 - Original DO hardware resource	0-65535	0	-	Unchangeable
U4-07	0x7407	I/O expansion card 2 - Available DO hardware resource	0-65535	0	-	Unchangeable
U4-08	0x7408	I/O expansion card 2 - Original AO hardware resource	0-65535	0	-	Unchangeable
U4-09	0x7409	I/O expansion card 2 - Available AO hardware resource	0-65535	0	-	Unchangeable
U4-10	0x740A	I/O expansion card 2 - DI input	0-65535	0	-	Unchangeable
U4-11	0x740B	I/O expansion card 2 - DO output	0-65535	0	-	Unchangeable
U4-12	0x740C	I/O expansion card 2 - AI1 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U4-13	0x740D	I/O expansion card 2 - AI2 input (before correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U4-14	0x740E	I/O expansion card 2 - AI1 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U4-15	0x740F	I/O expansion card 2 - AI2 input (after correction)	-12.00 V to 12.00 V	0.00	V	Unchangeable
U4-20	0x7414	I/O expansion card 2 - condition of DI1 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U4-21	0x7415	I/O expansion card 2 - condition of DI2 used by drive unit	0-65535	0	-	Unchangeable
U4-22	0x7416	I/O expansion card 2 - condition of DI3 used by drive unit	0-65535	0	-	Unchangeable
U4-23	0x7417	I/O expansion card 2 - condition of DI4 used by drive unit	0-65535	0	-	Unchangeable
U4-24	0x7418	I/O expansion card 2 - condition of DI5 used by drive unit	0-65535	0	-	Unchangeable
U4-25	0x7419	I/O expansion card 2 - condition of DI6 used by drive unit	0-65535	0	-	Unchangeable
U4-26	0x741A	I/O expansion card 2 - condition of DI7 used by drive unit	0-65535	0	-	Unchangeable
U4-27	0x741B	I/O expansion card 2 - condition of DI8 used by drive unit	0-65535	0	-	Unchangeable
U4-30	0x741E	I/O expansion card 2 - condition of AI1 used by drive unit	0-65535	0	-	Unchangeable
U4-31	0x741F	I/O expansion card 2 - condition of AI2 used by drive unit	0-65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U4-40	0x7428	I/O expansion card 2 - condition of DO1 used by drive unit	0-65535	0	-	Unchangeable
U4-41	0x7429	I/O expansion card 2 - condition of DO2 used by drive unit	0-65535	0	-	Unchangeable
U4-42	0x742A	I/O expansion card 2 - condition of DO3 used by drive unit	0-65535	0	-	Unchangeable
U4-43	0x742B	I/O expansion card 2 - condition of DO4 used by drive unit	0-65535	0	-	Unchangeable
U4-44	0x742C	I/O expansion card 2 - condition of DO5 used by drive unit	0-65535	0	-	Unchangeable
U4-45	0x742D	I/O expansion card 2 - condition of DO6 used by drive unit	0-65535	0	-	Unchangeable
U4-46	0x742E	I/O expansion card 2 - condition of DO7 used by drive unit	0-65535	0	-	Unchangeable
U4-47	0x742F	I/O expansion card 2 - condition of DO8 used by drive unit	0-65535	0	-	Unchangeable

4.6 Parameter List of the Drive Unit

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F0-00	0xF000	G/P type display	1: G type (constant torque load) 2: P type (fan and pump)	1	-	Unchangeable
F0-01	0xF001	Motor 1 control mode	0: Sensorless vector control (SVC) 2: V/f control 5: VC++	2	-	At stop
F0-02	0xF002	Command source selection	0: Operating panel of the power supply unit/LCD operating panel/Software 1: Terminal 2: Communication command	0	-	At stop
F0-03	0xF003	Main frequency source X	0: Digital setting (F0-08, can be changed by UP/DOWN keys, non-retentive upon power failure) 1: Digital setting (F0-08, can be changed by UP/DOWN keys, retentive upon power failure) 2: AI1 3: AI2 4: AI3 5: Reserved 6: Multi-reference 7: Simple PLC 8: PID 9: Communication command 10: Reserved	0	-	At stop
F0-04	0xF004	Auxiliary frequency source Y	0: Digital setting (F0-08, can be changed by UP/DOWN keys, non-retentive upon power failure) 1: Digital setting (F0-08, can be changed by UP/DOWN keys, retentive upon power failure) 2: AI1 3: AI2 4: AI3 5: Reserved 6: Multi-reference 7: Simple PLC 8: PID 9: Communication command 10: Reserved	0	-	At stop
F0-05	0xF005	Base value of range of auxiliary frequency reference Y upon superposition	0: Relative to the maximum frequency 1: Relative to the main frequency X	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F0-06	0xF006	Range of auxiliary frequency source Y upon superposition	0% to 150%	100	%	Real-time
F0-07	0xF007	Frequency superposition selection	Ones position: 0: Main frequency X 1: Calculation result (determined by tens position) 2: Switchover between main frequency X and auxiliary frequency Y 3: Switchover between main frequency X and calculation result 4: Switchover between auxiliary frequency Y and calculation result Tens position: 0: Main frequency + Auxiliary frequency 1: Main frequency - Auxiliary frequency 2: Max. (main frequency, auxiliary frequency) 3: Min. (main frequency, auxiliary frequency) 4: Main frequency x auxiliary frequency	0	-	Real-time
F0-08	0xF008	Preset frequency	0.00 Hz to 600.00 Hz	50.00	Hz	Real-time
F0-09	0xF009	Running direction	0: Same as default direction 1: Reverse to default direction	0	-	Real-time
F0-10	0xF00A	Maximum frequency	50.00 Hz to 600.00 Hz	50.00	Hz	At stop
F0-11	0xF00B	Frequency upper limit source	0: Set by F0-12 (Frequency upper limit) 1: AI1 2: AI2 3: AI3 4: Reserved 5: Communication setting 6: Multi-speed reference	0	-	At stop
F0-12	0xF00C	Frequency upper limit	0.00 Hz to 600.00 Hz	50.00	Hz	Real-time
F0-13	0xF00D	Frequency upper limit offset	0.00 Hz to 600.00 Hz	0.00	Hz	Real-time
F0-14	0xF00E	Frequency lower limit	0.00 Hz to 600.00 Hz	0.00	Hz	Real-time
F0-15	0xF00F	Carrier frequency	0.8 kHz to 15.0 kHz	6.0	kHz	Real-time
F0-16	0xF010	Carrier frequency change with temperature	0: No 1: Yes	1	-	Real-time
F0-17	0xF011	Acceleration time 1	0.0s to 6500.0s	20.0	s	Real-time
F0-18	0xF012	Deceleration time 1	0.0s to 6500.0s	20.0	s	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F0-19	0xF013	Acceleration/ Deceleration time unit	0: 1s 1: 0.1s 2: 0.01s	1	-	At stop
F0-21	0xF015	Auxiliary frequency offset during superposition	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F0-22	0xF016	Frequency reference resolution	1: 0.1 Hz 2: 0.01 Hz	2	Hz	At stop
F0-23	0xF017	Retention of digit- set frequency upon stop	0: Disable 1: Enable	0	-	Real-time
F0-25	0xF019	Base frequency for acceleration/ deceleration time	0: Maximum frequency (F0-10) 1: Frequency reference 2: 100 Hz	0	-	At stop
F0-26	0xF01A	Base value for frequency adjusted by UP/DOWN key during operation	0: Running frequency 1: Frequency reference	0	-	At stop
F0-27	0xF01B	Main frequency coefficient	0.00% to 100.00%	10.00	%	Real-time
F0-28	0xF01C	Auxiliary frequency coefficient	0.00% to 100.00%	10.00	%	Real-time
F0-29	0xF01D	G/P model	1: G type (constant torque load) 2: P type (fan and pump)	1	-	At stop
F1-00	0xF100	Motor type	0: Common asynchronous motor 1: Variable frequency asynchronous motor 2: Synchronous motor	0	-	At stop
F1-01	0xF101	Rated motor power	0.1 kW to 1000.0 kW	3.7	kW	At stop
F1-02	0xF102	Rated motor voltage	1 V to 2000 V	380	V	At stop
F1-03	0xF103	Rated motor current	0.1 A to 6553.5 A	9.0	A	At stop
F1-04	0xF104	Rated motor frequency	0.01 Hz to 655.35 Hz	50.00	Hz	At stop
F1-05	0xF105	Rated motor speed	1 RPM to 65535 RPM	1460	RPM	At stop
F1-06	0xF106	Asynchronous motor stator resistance	0.001 Ω to 65.535 Ω	1.204	Ω	At stop
F1-07	0xF107	Asynchronous motor rotor resistance	0.001 Ω to 65.535 Ω	0.908	Ω	At stop
F1-08	0xF108	Leakage inductive reactance of asynchronous motor	0.01 mH to 655.35 mH	5.28	mH	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F1-09	0xF109	Mutual inductive reactance of asynchronous motor	0.01 mH to 655.35 mH	156.8	mH	At stop
F1-10	0xF10A	No-load current of asynchronous motor	0.1 A to 6553.5 A	4.2	A	At stop
F1-11	0xF10B	Core saturation coefficient 1 of asynchronous motor	50.0% to 100.0%	86.0	%	Real-time
F1-12	0xF10C	Core saturation coefficient 2 of asynchronous motor	100.0% to 150.0%	130.0	%	Real-time
F1-13	0xF10D	Core saturation coefficient 3 of asynchronous motor	100.0% to 170.0%	140.0	%	Real-time
F1-14	0xF10E	Core saturation coefficient 4 of asynchronous motor	100.0% to 180.0%	150.0	%	Real-time
F1-17	0xF111	D axis inductance of synchronous motor	1.00 mH to 65535.00 mH	1586.00	mH	At stop
F1-18	0xF112	Q axis inductance of synchronous motor	1.00 mH to 65535.00 mH	1586.00	mH	At stop
F1-19	0xF113	Synchronous motor back EMF coefficient	0.0 V to 6553.5 V	0.0	V	At stop
F1-24	0xF118	Number of motor pole pairs	0 to 65535	0	-	Unchangeable
F1-37	0xF125	Auto-tuning mode	0: No auto-tuning 1: Static auto-tuning of asynchronous motors 2: Complete auto-tuning of asynchronous motors 3: With-load complete auto-tuning of asynchronous motors 11: No-load partial auto-tuning of synchronous motors (excluding back EMF) 12: No-load dynamic auto-tuning of synchronous motors 13: Static complete auto-tuning of synchronous motors	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F2-00	0xF200	Low-speed speed loop Kp	1–200	30	-	Real-time
F2-01	0xF201	Low-speed speed loop Ti	0.001s to 10.000s	0.500	s	Real-time
F2-02	0xF202	Switchover frequency 1	0.00 Hz to 655.35 Hz	5.00	Hz	Real-time
F2-03	0xF203	High-speed speed loop Kp	1–200	20	-	Real-time
F2-04	0xF204	High-speed speed loop Ti	0.001s to 10.000s	1.000	s	Real-time
F2-05	0xF205	Switchover frequency 2	0.00 Hz to 655.35 Hz	10.00	Hz	Real-time
F2-06	0xF206	VC slip compensation adjustment	50% to 200%	100	%	Real-time
F2-07	0xF207	Speed feedback filter time	0.000s to 0.100s	0.004	s	Real-time
F2-08	0xF208	VC deceleration over-excitation gain	0 to 200	64	-	Real-time
F2-09	0xF209	Torque upper limit source in speed control mode (motoring)	0: Set by F2-10 1: AI1 2: AI2 3: AI3 4: Reserved 5: Communication setting 6: Min. (AI1, AI2) 7: Max. (AI1, AI2)	0	-	Real-time
F2-10	0xF20A	Setting of torque upper limit in speed control mode (motoring)	0.0% to 200.0%	150.0	%	Real-time
F2-11	0xF20B	Torque upper limit source in speed control mode (generating)	0: Set by F2-10 1: AI1 2: AI2 3: AI3 4: Reserved 5: Communication setting 6: Min. (AI1, AI2) 7: Max. (AI1, AI2) 8: Set by F2-12	0	-	Real-time
F2-12	0xF20C	Setting of torque upper limit in speed control mode (generating)	0.0% to 200.0%	150.0	%	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F2-13	0xF20D	Low-speed current loop Kp adjustment	0.1 to 10.0	1.0	-	Real-time
F2-14	0xF20E	Low-speed current loop Ki adjustment	0.1 to 10.0	1.0	-	Real-time
F2-15	0xF20F	High-speed current loop Kp adjustment	0.1 to 10.0	1.0	-	Real-time
F2-16	0xF210	High-speed current loop Ki adjustment	0.1 to 10.0	1.0	-	Real-time
F2-17	0xF211	Speed loop Kp upon zero speed lock	1 to 100	30	-	Real-time
F2-18	0xF212	Speed loop Ti upon zero speed lock	0.001s to 10.000s	0.500	s	Real-time
F2-20	0xF214	Speed loop switchover frequency upon zero speed lock	0.00 Hz to 655.35 Hz	0.05	Hz	Real-time
F2-21	0xF215	Maximum output voltage coefficient	100 to 110	100	-	Real-time
F2-22	0xF216	Output voltage filter time	0.000s to 0.010s	0.000	s	Real-time
F2-23	0xF217	Zero speed lock	0: Disable 1: Enable	0	-	At stop
F2-24	0xF218	Vector overvoltage stall suppression Kp	0 to 1000	40	-	Real-time
F2-25	0xF219	Acceleration compensation gain	0 to 200	0	-	Real-time
F2-26	0xF21A	Acceleration compensation filter time	0 to 500	10	-	Real-time
F2-27	0xF21B	Overvoltage stall suppression in vector control mode	0: Disable 1: Enable	1	-	Real-time
F2-28	0xF21C	Cut-off frequency for torque reference filter	50 Hz to 1000 Hz	500	Hz	Real-time
F2-29	0xF21D	Initial position angle detection current of synchronous motor	50 to 180	80	-	Real-time
F2-30	0xF21E	Auto-calculation of speed loop parameters	0: Disable 1: Enable	0	-	At stop
F2-31	0xF21F	Expected speed loop bandwidth (high speed)	1.0 Hz to 200.0 Hz	10.0	Hz	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F2-32	0xF220	Expected speed loop bandwidth (low speed)	1.0 Hz to 200.0 Hz	10.0	Hz	Real-time
F2-33	0xF221	Expected speed loop bandwidth (zero speed)	1.0 Hz to 200.0 Hz	10.0	Hz	Real-time
F2-34	0xF222	Expected speed loop damping ratio (unchanged generally)	0.100 to 65.000	1.000	-	Real-time
F2-52	0xF234	Decoupling control	0: Disable 1: Enable	0	-	At stop
F2-53	0xF235	Generating power limit	0: Disable 1: Enable	0	-	At stop
F2-54	0xF236	Generating power limit threshold	0.0% to 200.0%	0.0	%	At stop
F2-55	0xF237	Flux closed loop mode	Ones position: Reserved Tens position: Reserved Hundreds position: Reserved Thousands position: Torque base value 0: Rated motor current 1: Rated motor torque current	1010	-	At stop
F2-56	0xF238	Upper limit of AC drive output current	0.0% to 170.0%	150.0	%	At stop
F3-00	0xF300	V/f curve setting	0: Linear V/f curve 1: Multi-point V/f curve 2: Square V/f curve 3: 1.2-power V/f curve 4: 1.4-power V/f curve 6: 1.6-power V/f curve 8: 1.8-power V/f curve 10: V/f complete separation mode 11: V/f semi-separated mode	0	-	At stop
F3-01	0xF301	Torque boost	0.0% to 30.0%	0.0	%	Real-time
F3-02	0xF302	Cutoff frequency of torque boost	0.00 Hz to 655.35 Hz	50.00	Hz	At stop
F3-03	0xF303	Frequency point 1 on multi-point V/f curve	0.00 Hz to 655.35 Hz	0.00	Hz	At stop
F3-04	0xF304	Voltage point 1 on multi-point V/f curve	0.0% to 100.0%	0.0	%	At stop
F3-05	0xF305	Frequency point 2 on multi-point V/f curve	0.00 Hz to 655.35 Hz	0.00	Hz	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F3-06	0xF306	Voltage point 2 on multi-point V/f curve	0.0% to 100.0%	0.0	%	At stop
F3-07	0xF307	Frequency point 3 on multi-point V/f curve	0.00 Hz to 655.35 Hz	0.00	Hz	At stop
F3-08	0xF308	Voltage point 3 on multi-point V/f curve	0.0% to 100.0%	0.0	%	At stop
F3-09	0xF309	V/f slip compensation gain	0.0% to 200.0%	0.0	%	Real-time
F3-10	0xF30A	V/f over-excitation gain	0 to 200	64	-	Real-time
F3-11	0xF30B	V/f oscillation suppression gain	0 to 100	0	-	Real-time
F3-12	0xF30C	Oscillation suppression gain mode	0: Inactive 3: Active	3	-	At stop
F3-13	0xF30D	Voltage source for V/f separation	0: Digital setting (F3-14) 1: AI1 2: AI2 3: AI3 4: Reserved 5: Multi-reference 6: Simple PLC 7: PID 8 Communication setting	0	-	Real-time
F3-14	0xF30E	V/f separation voltage	0 V to 65535 V	0	V	Real time
F3-15	0xF30F	Voltage acceleration time for V/f separation	0.0s to 1000.0s	0.0	s	Real-time
F3-16	0xF310	Voltage deceleration time for V/f separation	0.0s to 1000.0s	0.0	s	Real-time
F3-17	0xF311	Stop mode for V/f separation	0: The frequency and voltage decline to 0 independently. 1: The frequency declines to 0 after the voltage declines to 0.	0	-	At stop
F3-18	0xF312	Current threshold for enabling V/f overcurrent stall suppression	50% to 180%	150	%	At stop
F3-19	0xF313	V/f overcurrent stall suppression	0: Disable 1: Enable	1	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F3-20	0xF314	V/f overcurrent stall suppression gain	0 to 100	20	-	Real-time
F3-21	0xF315	Current compensation coefficient for V/f overcurrent stall action at multiplied rated frequency	50 to 180	50	-	At stop
F3-22	0xF316	Voltage threshold for enabling V/f overvoltage stall suppression	330.0 V to 800.0 V	770.0	V	At stop
F3-23	0xF317	V/f overvoltage stall suppression	0: Disable 1: Enable	1	-	At stop
F3-24	0xF318	Frequency gain for V/f overvoltage stall suppression	0 to 100	30	-	Real-time
F3-25	0xF319	Voltage gain for V/f overvoltage stall suppression	0 to 100	30	-	Real-time
F3-26	0xF31A	Frequency rise threshold for overvoltage stall suppression	0 to 50	5	-	At stop
F3-27	0xF31B	Slip compensation time constant	0.1 to 10.0	0.5	-	Real-time
F3-28	0xF31C	Automatic frequency rise	0: Disable 1: Enable	0	-	At stop
F3-29	0xF31D	Minimum motoring torque current	10 to 100	50	-	At stop
F3-30	0xF31E	Maximum generating torque current	10 to 100	20	-	At stop
F3-31	0xF31F	Automatic frequency rise Kp	0 to 100	50	-	Real-time
F3-32	0xF320	Automatic frequency rise Ki	0 to 100	50	-	Real-time
F3-33	0xF321	Online torque compensation gain	80 to 150	100	-	At stop
F3-34	0xF322	Slip start enable	0 to 1	0	-	At stop
F3-35	0xF323	Slip start threshold	0 to 50	10	-	Real-time
F3-36	0xF324	Slip start Kp	0.0 to 200.0	10.0	-	Real-time
F3-37	0xF325	Slip start Ki	0.00 to 500.00	1.00	-	Real-time
F3-38	0xF326	Slip start current	0 to 200	180	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-00	0xF400	D11 hardware source	0: No selection 1: Power supply unit - DI1 2: Power supply unit - DI2 3: Power supply unit - DI3 4: Power supply unit - DI4 5: Power supply unit - DIO1 6: Power supply unit - DIO2 7: Power supply unit - DIO3 8: Power supply unit - DIO4 101: Expansion card 1 - DI1 102: Expansion card 1 - DI2 103: Expansion card 1 - DI3 104: Expansion card 1 - DI4 105: Expansion card 1 - DI5 106: Expansion card 1 - DI6 107: Expansion card 1 - DI7 108: Expansion card 1 - DI8 201: Expansion card 2 - DI1 202: Expansion card 2 - DI2 203: Expansion card 2 - DI3 204: Expansion card 2 - DI4 205: Expansion card 2 - DI5 206: Expansion card 2 - DI6 207: Expansion card 2 - DI7 208: Expansion card 2 - DI8	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-01	0xF401	DI1 function	0: No function 1: Forward run (FWD) 2: Reverse run (REV) 3: Three-wire control 4: Forward jog (FJOG) 5: Reverse jog (RJOG) 6: Function as the UP key 7: Function as the DOWN key 8: Clear information set by UP/DOWN keys on the operating panel or by terminals functioning as the UP/DOWN keys 9: Fault reset (RESET) 10: External fault NO input 11: External fault NC input 12: User-defined fault 1 13: User-defined fault 2 14: Multi-reference terminal 1 15: Multi-reference terminal 2 16: Multi-reference terminal 3 17: Multi-reference terminal 4 18: Acceleration/deceleration selection terminal 1 19: Acceleration/deceleration selection terminal 2 20: Acceleration/Deceleration prohibition 21: Command source switchover terminal 1 22: Command source switchover terminal 2 23: Frequency reference switchover 24: Switchover between main frequency X and preset frequency 25: Switchover between auxiliary frequency Y and preset frequency (to be continued)	1	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-01	0xF401	DI1 function	(continued) 26: Frequency modification enable 27: Counter input 28: Counter reset 29: Length count input 30: Length reset 31: PID pause 32: PID integral pause 33: PID parameter switchover 34: Opposite to PID action direction 35: Torque control prohibition 36: Speed control/Torque control switchover 38: Flying start enable 39: Immediate DC braking 40: Deceleration DC braking 41: External stop terminal 1 42: External stop terminal 2 43: Running pause 44: Coast to stop 45: Emergency stop 46: Motor selection terminal 47: Clear current running time 48: Two-wire/Three-wire motion control switchover 49: PLC state reset 50: Wobble pause 94: Brake feedback 1 95: Brake feedback 2	1	-	At stop
F4-02	0xF402	DI2 hardware source	Same as F4-00	0	-	At stop
F4-03	0xF403	DI2 function	Same as F4-01	4	-	At stop
F4-04	0xF404	DI3 hardware source	Same as F4-00	0	-	At stop
F4-05	0xF405	DI3 function	Same as F4-01	9	-	At stop
F4-06	0xF406	DI4 hardware source	Same as F4-00	0	-	At stop
F4-07	0xF407	DI4 function	Same as F4-01	14	-	At stop
F4-08	0xF408	DI5 hardware source	Same as F4-00	0	-	At stop
F4-09	0xF409	DI5 function	Same as F4-01	15	-	At stop
F4-10	0xF40A	DI6 hardware source	Same as F4-00	0	-	At stop
F4-11	0xF40B	DI6 function	Same as F4-01	0	-	At stop
F4-12	0xF40C	DI7 hardware source	Same as F4-00	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-13	0xF40D	DI7 function	Same as F4-01	0	-	At stop
F4-14	0xF40E	DI8 hardware source	Same as F4-00	0	-	At stop
F4-15	0xF40F	DI8 function	Same as F4-01	0	-	At stop
F4-17	0xF411	Terminal command mode	0: Two-wire mode 1 1: Two-wire mode 2 2: Three-wire mode 1 3: Three-wire mode 2	0	-	At stop
F4-18	0xF412	Step value of the terminal functioning as UP/DOWN keys	0.001 Hz/s to 65.535 Hz/s	1.000	Hz/s	Real-time
F4-19	0xF413	DI1 delay time	0.0s to 3600.0s	0.0	s	Real-time
F4-20	0xF414	DI2 delay time	0.0s to 3600.0s	0.0	s	Real-time
F4-21	0xF415	DI3 delay time	0.0s to 3600.0s	0.0	s	Real-time
F4-22	0xF416	DI valid mode selection 1	Ones position: 0: Active high 1: Active low Tens position: 0: Active high 1: Active low Hundreds position: 0: Active high 1: Active low Thousands position: 0: Active high 1: Active low Ten thousands position: 0: Active high 1: Active low	0	-	At stop
F4-23	0xF417	DI valid mode selection 2	Ones position: 0: Active high 1: Active low Tens position: 0: Active high 1: Active low Hundreds position: 0: Active high 1: Active low Thousands position: 0: Reserved Ten thousands position: 0: Reserved	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-25	0xF419	AI1 hardware source	0: No selection 1: AI1 of power supply unit 2: AI2 of power supply unit 101: AI1 of expansion card 1 102: AI2 of expansion card 1 201: AI1 of expansion card 2 202: AI2 of expansion card 2	0	-	At stop
F4-27	0xF41B	AI2 hardware source	0: No selection 1: AI1 of power supply unit 2: AI2 of power supply unit 101: AI1 of expansion card 1 102: AI2 of expansion card 1 201: AI1 of expansion card 2 202: AI2 of expansion card 2	0	-	At stop
F4-29	0xF41D	AI3 hardware source	0: No selection 1: AI1 of power supply unit 2: AI2 of power supply unit 101: AI1 of expansion card 1 102: AI2 of expansion card 1 201: AI1 of expansion card 2 202: AI2 of expansion card 2	0	-	At stop
F4-31	0xF41F	Minimum input of AI curve 1	-10.00 V to 10.00 V	0.00	V	Real time
F4-32	0xF420	Percentage corresponding to the minimum input of AI curve 1	-100.0% to 100.0%	0.0	%	Real-time
F4-33	0xF421	Maximum input of AI curve 1	-10.00 V to 10.00 V	10.00	V	Real time
F4-34	0xF422	Percentage corresponding to the maximum input of AI curve 1	-100.0% to 100.0%	100.0	%	Real-time
F4-35	0xF423	Minimum input of AI curve 2	-10.00 V to 10.00 V	0.00	V	Real time
F4-36	0xF424	Percentage corresponding to minimum input of AI curve 2	-100.0% to 100.0%	0.0	%	Real-time
F4-37	0xF425	Maximum input of AI curve 2	-10.00 V to 10.00 V	10.00	V	Real time
F4-38	0xF426	Percentage corresponding to the maximum input of AI curve 2	-100.0% to 100.0%	100.0	%	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F4-39	0xF427	Minimum input of AI curve 3	-10.00 V to 10.00 V	0.00	V	Real time
F4-40	0xF428	Percentage corresponding to minimum input of AI curve 3	-100.0% to 100.0%	0.0	%	Real-time
F4-41	0xF429	Maximum input of AI curve 3	-10.00 V to 10.00 V	10.00	V	Real time
F4-42	0xF42A	Percentage corresponding to the maximum input of AI curve 3	-100.0% to 100.0%	100.0	%	Real-time
F4-48	0xF430	AI curve selection	Ones position: 1: Curve 1 (2 points) 2: Curve 2 (2 points) 3: Curve 3 (2 points) 4: Curve 4 (4 points) 5: Curve 5 (4 points) Tens position: 1: Curve 1 (2 points) 2: Curve 2 (2 points) 3: Curve 3 (2 points) 4: Curve 4 (4 points) 5: Curve 5 (4 points) Hundreds position: 1: Curve 1 (2 points) 2: Curve 2 (2 points) 3: Curve 3 (2 points) 4: Curve 4 (4 points) 5: Curve 5 (4 points)	801	-	Real-time
F4-49	0xF431	Selection when AI value < minimum input value	Ones position: 0: Percentage corresponding to the minimum input 1: 0.0% Tens position: 0: Percentage corresponding to the minimum input 1: 0.0% Hundreds position: 0: Percentage corresponding to the minimum input 1: 0.0%	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-00	0xF500	DO1/RO1 hardware source	0: No selection 1: Power supply unit - DIO1 2: Power supply unit - DIO2 3: Power supply unit - DIO3 4: Power supply unit - DIO4 5: Power supply unit - RO1 101: Expansion card 1 - DO1/RO1 102: Expansion card 1 - DO2/RO2 103: Expansion card 1 - DO3/RO3 104: Expansion card 1 - DO4/RO4 105: Expansion card 1 - DO5/RO5 106: Expansion card 1 - DO6/RO6 107: Expansion card 1 - DO7/RO7 108: Expansion card 1 - DO8/RO8 201: Expansion card 2 - DO1/RO1 202: Expansion card 2 - DO2/RO2 203: Expansion card 2 - DO3/RO3 204: Expansion card 2 - DO4/RO4 205: Expansion card 2 - DO5/RO5 206: Expansion card 2 - DO6/RO6 207: Expansion card 2 - DO7/RO7 208: Expansion card 2 - DO8/RO8	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-01	0xF501	DO1/RO1 output function	0: No output 1: AC drive in operation 2: Ready to run 3: Fault output (stop upon fault) 4: Fault output 2 5: Fault output 3 6: Abnormal output (direct output upon fault or alarm) 7: Motor overload warning 8: AC drive overload warning 9: Motor overtemperature warning 10: AC drive load loss 11: Undervoltage state 12: Output current limit exceeded 13: Frequency level detection FDT1 output 14: Frequency level detection FDT2 output 15: Frequency reached 16: Frequency 1 reached 17: Frequency 2 reached 18: Frequency upper limit reached 19: Frequency lower limit reached (output at stop) 20: Frequency lower limit reached (no output at stop) 21: Timing reached 22: Cumulative power-on time reached 23: Cumulative operating time reached 24: Current operating time reached 25: Zero current state (to be continued)	3	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-01	0xF501	DO1/RO1 output function	(continued) 26: Current 1 reached 27: Current 2 reached 28: Module temperature reached 29: Set counting value reached 30: Designated counting value reached 31: Length reached 32: Frequency limited 33: Torque limited 34: AI1 input beyond the limit 35: AI1 > AI2 36: PLC cycle completed 37: Communication setting 38: STO-EDM 39: Reserved 40: Operating at zero speed (no output at stop) 41: Operating at zero speed 2 (active upon stop) 42: Reserved 43: Operating in reverse direction 44: Process 1 45: Process 2 46: Process 3 47: Process 4 48: Process 5 49: Process 6 50: Process 7 53: Brake output	3	-	Real-time
F5-02	0xF502	DO2/RO2 hardware source	Same as F5-00	0	-	Real-time
F5-03	0xF503	DO2/RO2 output function	Same as F5-01	15	-	Real-time
F5-04	0xF504	DO3/RO3 hardware source	Same as F5-00	0	-	Real-time
F5-05	0xF505	DO3/RO3 output function	Same as F5-01	0	-	Real-time
F5-06	0xF506	DO4/RO4 hardware source	Same as F5-00	0	-	Real-time
F5-07	0xF507	DO4/RO4 output function	Same as F5-01	0	-	Real-time
F5-08	0xF508	DO5/RO5 hardware source	Same as F5-00	0	-	Real-time
F5-09	0xF509	DO5/RO5 output function	Same as F5-01	0	-	Real-time
F5-10	0xF50A	DO1/RO1 output delay time	0.0s to 3600.0s	0.0	s	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F5-11	0xF50B	DO2/RO2 output delay time	0.0s to 3600.0s	0.0	s	Real-time
F5-12	0xF50C	DO3/RO3 output delay time	0.0s to 3600.0s	0.0	s	Real-time
F5-13	0xF50D	DO4/RO4 output delay time	0.0s to 3600.0s	0.0	s	Real-time
F5-14	0xF50E	DO5/RO5 output delay time	0.0s to 3600.0s	0.0	s	Real-time
F5-15	0xF50F	DO/RO active mode selection	Ones position: 0: Positive logic 1: Negative logic Tens position: 0: Positive logic 1: Negative logic Hundreds position: 0: Positive logic 1: Negative logic Thousands position: 0: Positive logic 1: Negative logic Ten thousands position: 0: Positive logic 1: Negative logic	0	-	Real-time
F6-00	0xF600	Start mode	0: Direct start 1: Flying start (asynchronous motor) 2: Vector pre-excitation start (asynchronous motor)	0	-	Real-time
F6-01	0xF601	Flying start mode	0: From frequency at stop 1: From 50 Hz 2: From the maximum frequency 3: Flying start	0	-	At stop
F6-02	0xF602	Flying start speed	1 to 100	20	-	Real-time
F6-03	0xF603	Startup frequency	0.00 Hz to 10.00 Hz	0.00	Hz	Real-time
F6-04	0xF604	Startup frequency hold time	0.0s to 100.0s	0.0	s	At stop
F6-05	0xF605	DC braking current/ Pre-excited current upon start	0% to 100%	0	%	At stop
F6-06	0xF606	DC braking time/ Pre-excitation time upon start	0.0s to 100.0s	0.0	s	At stop
F6-07	0xF607	Acceleration/ Deceleration mode	0: Linear acceleration/deceleration 1: S-curve acceleration/deceleration 2: Four-segment S-curve acceleration/ deceleration	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F6-10	0xF60A	Stop mode	0: Decelerate to stop 1: Coast to stop	0	-	Real-time
F6-11	0xF60B	DC braking/Position lock start frequency at stop	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F6-12	0xF60C	DC braking waiting time at stop	0.0s to 100.0s	0.0	s	Real-time
F6-13	0xF60D	DC braking current at stop	0% to 100%	50	%	Real-time
F6-14	0xF60E	DC braking time at stop	0.0s to 100.0s	0.5	s	Real-time
F6-15	0xF60F	Braking usage rate	0% to 100%	100	%	At stop
F6-16	0xF610	Closed-loop current Kp of flying start	0 to 1000	500	-	Real-time
F6-17	0xF611	Closed-loop current Ki of torque tracking	0 to 1000	800	-	Real-time
F6-18	0xF612	Current during flying start	30 to 200	100	-	Real-time
F6-19	0xF613	Gain coefficient of fast flying start	1.0 to 20.0	10.0	-	At stop
F6-20	0xF614	Cut-off frequency of fast flying start	0.5 Hz to 3.0 Hz	1.1	Hz	At stop
F6-21	0xF615	Demagnetization time	0.00s to 10.00s	1.00	s	Real-time
F6-22	0xF616	Start pre-torque setting	0.0% to 200.0%	0.0	%	Real-time
F6-23	0xF617	Operation command on power supply unit	0: Stop according to F6-10 1: Ignore stop command from the power supply side	0	-	At stop
F6-24	0xF618	Position lock Kp	0.0 to 100.0	10.0	-	Real-time
F6-25	0xF619	Position lock end amplitude	0 to 16383	10	-	Real-time
F6-26	0xF61A	Time proportion of S-curve acceleration start segment	0.0% to 100.0%	30.0	%	At stop
F6-27	0xF61B	Time proportion of S-curve acceleration end segment	0.0% to 100.0%	30.0	%	At stop
F6-28	0xF61C	Time proportion of S-curve deceleration start segment	0.0% to 100.0%	30.0	%	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F6-29	0xF61D	Time proportion of S-curve deceleration end segment	0.0% to 100.0%	30.0	%	At stop
F6-30	0xF61E	Trial current for flying start of synchronous motor	5.0% to 50.0%	20.0	%	At stop
F6-31	0xF61F	Minimum track frequency for synchronous motor flying start	0.0 Hz to 100.0 Hz	0.0	Hz	At stop
F6-32	0xF620	Angle compensation for flying start of synchronous motor	0 to 360	0	-	At stop
F6-33	0xF621	Proportion coefficient of synchronous motor flying start	0.1 to 10.0	2.0	-	At stop
F6-34	0xF622	Integral coefficient of synchronous motor flying start	0.1 to 10.0	6.0	-	At stop
F6-35	0xF623	Reverse running inhibition for flying start	0 to 2	0	-	Real-time
F7-00	0xF700	Drive unit indicator test	0 to 2	0	-	Real-time
F7-01	0xF701	MF.K key function	0: MF.K key disabled 1: Switchover between operating panel control and remote control (terminal or communication command channel) 2: Switchover between forward and reverse run 3: Forward jog 4: Reverse jog	0	-	At stop
F7-02	0xF702	STOP key function	0: Stop function of the STOP/RES key enabled only in operating panel control mode 1: Stop function of the STOP/RES key enabled in any operating mode	1	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F7-03	0xF703	Parameter display 1 on LED operating panel during operation	Bit 0: Running frequency (Hz) Bit 1: Frequency Reference (Hz) Bit 2: Bus voltage (V) Bit 3: Output voltage (V) Bit 4: Output current (A) Bit 5: Output power (kW) Bit 6: Output torque (%) Bit 7: DI state Bit 8: DO state Bit 9: AI1 voltage (V) Bit 10: AI2 voltage (V) Bit 11: AI3 voltage (V) Bit 12: Count value Bit 13: Length value Bit 14: Load speed Bit 15: PID reference	31	-	Real-time
F7-04	0xF704	Parameter display 2 on the LED operating panel during operation	Bit 0: PID feedback Bit 1: PLC stage Bit 2: Reserved Bit 3: Running frequency 2 (Hz) Bit 4: Remaining running time Bit 5: Reserved Bit 6: Reserved Bit 7: Reserved Bit 8: Linear speed Bit 9: Current power-on duration (min.) Bit 10: Current running duration (min.) Bit 11: Reserved Bit 12: Communication setpoint Bit 13: Reserved Bit 14: Main frequency X Bit 15: Auxiliary frequency Y	0	-	Real-time
F7-05	0xF705	Parameter display on the LED operating panel upon stop	Bit 0: Frequency reference (Hz) Bit 1: Bus voltage (V) Bit 2: DI state Bit 3: DO state Bit 4: AI1 voltage (V) Bit 5: AI2 voltage (V) Bit 6: AI3 voltage (V) Bit 7: Count value Bit 8: Length value Bit 9: PLC stage Bit 10: Load speed Bit 11: PID reference Bit 12: Reserved	51	-	Real-time
F7-06	0xF706	STO software version	0.0 to 6553.5	0.0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F7-07	0xF707	Drive unit heatsink temperature	-20°C to 120°C	0	°C	Unchangeable
F7-08	0xF708	Product code	0 to 1000	0	-	Unchangeable
F7-09	0xF709	Cumulative running time	0 hour and 65535 hours	0	h	Unchangeable
F7-10	0xF70A	Performance software version	0.00	0.00	-	Unchangeable
F7-11	0xF70B	Function software version	0.00	0.00	-	Unchangeable
F7-12	0xF70C	Cumulative power-on time	0 hour and 65535 hours	0	h	Unchangeable
F7-13	0xF70D	Cumulative power generation	0 kW·h to 65535 kW·h	0	kW·h	Unchangeable
F7-14	0xF70E	Cumulative power consumption	0 kW·h to 65535 kW·h	0	kW·h	Unchangeable
F7-15	0xF70F	Temporary performance software version	0.00	0.00	-	Unchangeable
F7-16	0xF710	Temporary function software version	0.00	0.00	-	Unchangeable
F8-00	0xF800	Jog frequency	0.00 Hz to 655.35 Hz	2.00	Hz	Real-time
F8-01	0xF801	Jog acceleration time	0.0s to 6500.0s	20.0	s	Real-time
F8-02	0xF802	Jog deceleration time	0.0s to 6500.0s	20.0	s	Real-time
F8-03	0xF803	Acceleration time 2	0.0s to 6500.0s	0.0	s	Real-time
F8-04	0xF804	Deceleration time 2	0.0s to 6500.0s	0.0	s	Real-time
F8-05	0xF805	Acceleration time 3	0.0s to 6500.0s	0.0	s	Real-time
F8-06	0xF806	Deceleration time 3	0.0s to 6500.0s	0.0	s	Real-time
F8-07	0xF807	Acceleration time 4	0.0s to 6500.0s	0.0	s	Real-time
F8-08	0xF808	Deceleration time 4	0.0s to 6500.0s	0.0	s	Real-time
F8-09	0xF809	Jump frequency 1	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-10	0xF80A	Jump frequency 2	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-11	0xF80B	Jump frequency step value	0.00 Hz to 5.00 Hz	0.00	Hz	Real-time
F8-12	0xF80C	Jump frequency state during acceleration/ deceleration	0: Invalid 1: Valid	0	-	Real-time
F8-13	0xF80D	Dead-zone time of forward/reverse run	0.0s to 3000.0s	0.0	s	Real-time
F8-14	0xF80E	Reverse run	0: Allowed 1: Inhibited	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F8-15	0xF80F	Running mode when frequency < frequency lower limit	0: Run at frequency lower limit 1: Stop 2: Run at zero speed	0	-	Real-time
F8-17	0xF811	Valid mode of external fault NO input	0: Always valid 1: Valid only during operation	0	-	At stop
F8-18	0xF812	Valid mode of external fault NC input	0: Always valid 1: Valid only during operation	0	-	At stop
F8-19	0xF813	Cumulative power-on time threshold	0 hour and 65000 hours	0	h	Real-time
F8-20	0xF814	Cumulative running time threshold	0 hour and 65000 hours	0	h	Real-time
F8-21	0xF815	Protection upon start	0: Disable 1: Enable	0	-	Real-time
F8-22	0xF816	Frequency detection value 1 (FDT1)	0.00 Hz to 655.35 Hz	50.00	Hz	Real-time
F8-23	0xF817	Frequency detection hysteresis 1 (FDT1)	0.00 Hz to 655.35 Hz	2.50	Hz	Real-time
F8-24	0xF818	Frequency detection value 2 (FDT2)	0.00 Hz to 655.35 Hz	50.00	Hz	Real-time
F8-25	0xF819	Frequency detection hysteresis 2 (FDT2)	0.00 Hz to 655.35 Hz	2.50	Hz	Real-time
F8-26	0xF81A	Frequency detection range	0.00 Hz to 655.35 Hz	2.50	Hz	Real-time
F8-27	0xF81B	Detection frequency 1	0.00 Hz to 655.35 Hz	50.00	Hz	Real-time
F8-28	0xF81C	Range of detection frequency 1	0.00 Hz to 655.35 Hz	2.50	Hz	Real-time
F8-29	0xF81D	Detection mode when running frequency reaches detection frequency 1	0: Detection is performed at any time. 1: Detection is not performed during acceleration/deceleration.	0	-	At stop
F8-30	0xF81E	Detection frequency 2	0.00 Hz to 655.35 Hz	50.00	Hz	Real-time
F8-31	0xF81F	Range of detection frequency 2	0.00 Hz to 655.35 Hz	2.50	Hz	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F8-32	0xF820	Detection mode when running frequency reaches detection frequency 2	0: Detection is performed at any time. 1: Detection is not performed during acceleration/deceleration.	0	-	At stop
F8-35	0xF823	Frequency for switchover between acceleration time 1 and acceleration time 2	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-36	0xF824	Frequency for switchover between deceleration time 1 and deceleration time 2	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-37	0xF825	Jog with priority	0: Invalid 1: Valid	0	-	At stop
F8-38	0xF826	Zero current detection level	0.0% to 300.0%	5.0	%	Real-time
F8-39	0xF827	Zero current detection delay	0.01s to 600.00s	0.10	s	Real-time
F8-40	0xF828	Output current overlimit threshold	0.0% to 300.0%	200.0	%	Real-time
F8-41	0xF829	Software overcurrent detection delay	0.00s to 600.00s	0.00	s	Real-time
F8-42	0xF82A	Detection current 1	0.0% to 300.0%	100.0	%	Real-time
F8-43	0xF82B	Detection current amplitude 1	0.0% to 300.0%	0.0	%	Real-time
F8-44	0xF82C	Detection current 2	0.0% to 300.0%	100.0	%	Real-time
F8-45	0xF82D	Detection current amplitude 2	0.0% to 300.0%	0.0	%	Real-time
F8-46	0xF82E	Timing function	0: Disable 1: Enable	0	-	At stop
F8-47	0xF82F	Timed operation duration setting source	0: F8-48 1: AI1 2: AI2	0	-	At stop
F8-48	0xF830	Timed operation duration	0.0 min to 6500.0 min	0.0	min	At stop
F8-49	0xF831	Lower limit of AI1 input voltage protection value	0.00 V to 655.35 V	3.10	V	Real time
F8-50	0xF832	Upper limit of AI1 input voltage protection value	0.00 V to 11.00 V	6.80	V	Real time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F8-51	0xF833	Module temperature threshold	0°C to 100°C	75	°C	Real-time
F8-52	0xF834	Cooling fan control	0: The fan runs forward during AC drive operation. 1: The fan runs forward at any time. 2: The fan runs forward or reversely at any time. 3: The fan runs forward or reversely during AC drive operation.	0	-	Real-time
F8-54	0xF836	Wakeup frequency	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-55	0xF837	Wakeup delay	0.0s to 6500.0s	0.0	s	Real-time
F8-56	0xF838	Hibernation frequency	0.00 Hz to 655.35 Hz	0.00	Hz	Real-time
F8-57	0xF839	Hibernation delay	0.0s to 6500.0s	0.0	s	Real-time
F8-58	0xF83A	Current running duration threshold	0.0 min to 6500.0 min	0.0	min	Real-time
F8-59	0xF83B	Switchover between communication address 2000H/2001H	0: General protocol 1: Specialized protocol	0	-	At stop
F8-60	0xF83C	Deceleration time for emergency stop	0.0s to 6500.0s	0.0	s	Real-time
F8-61	0xF83D	Jogging by LED operating panel	0	0	-	Unchangeable
F8-62	0xF83E	Load speed display coefficient	0.0000 to 6.5000	1.0000	-	Real-time
F8-63	0xF83F	Number of decimal places for load speed display	0: 0 decimal place 1: 1 decimal place 2: 2 decimal places 3: 3 decimal places	1	-	Real-time
F8-64	0xF840	7310H address data unit	0: Frequency (Hz) 1: Speed (RPM)	0	-	At stop
F8-65	0xF841	Detection time threshold for STO inconsistency fault	12 ms to 1000 ms	50	ms	At stop
F8-66	0xF842	STO display mode selection	0: Display STO status 1: Display STO fault	0	-	At stop
F9-00	0xF900	AC drive overload suppression	0 to 1	0	-	Real-time
F9-01	0xF901	Motor overload protection gain	0.20 to 10.00	1.00	-	Real-time
F9-02	0xF902	Motor overload warning coefficient	50% to 100%	80	%	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-06	0xF906	Output phase loss detection before start	0: Invalid 1: Valid	0	%	Real-time
F9-07	0xF907	Detection of software short-circuited to ground	0: Disable 1: Enable	1	-	At stop
F9-09	0xF909	Number of automatic reset times upon fault	0 to 20	0	-	Real-time
F9-10	0xF90A	DO action during automatic fault reset	0: Disable 1: Enable	0	-	Real-time
F9-11	0xF90B	Time for automatic reset upon fault	0.1s to 100.0s	1.0	s	Real-time
F9-12	0xF90C	Time for restart and reset upon fault	0.0s to 100.0s	1.0	s	Real-time
F9-13	0xF90D	Automatic reset upon STO fault	0: Manual reset 1: Automatic reset	1	-	At stop
F9-14	0xF90E	Type of the 1st fault	0 to 99	0	-	Unchangeable
F9-15	0xF90F	Type of the 2nd fault	0 to 99	0	-	Unchangeable
F9-16	0xF910	Type of the 3rd (latest) fault	0 to 99	0	-	Unchangeable
F9-17	0xF911	Frequency upon the 3rd (latest) fault	0	0	-	Unchangeable
F9-18	0xF912	Current upon the 3rd fault (latest)	0	0	-	Unchangeable
F9-19	0xF913	Bus voltage upon the 3rd (latest) fault	0	0	-	Unchangeable
F9-20	0xF914	Input terminal state upon the 3rd fault (latest)	0	0	-	Unchangeable
F9-21	0xF915	Output terminal state upon the 3rd fault (latest)	0	0	-	Unchangeable
F9-22	0xF916	AC drive state upon the 3rd (latest) fault	0	0	-	Unchangeable
F9-23	0xF917	Power-on time upon the 3rd fault (latest)	0	0	-	Unchangeable
F9-24	0xF918	Running time upon the 3rd fault (latest)	0	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-25	0xF919	IGBT temperature upon the 3rd (latest) fault	0	0	-	Unchangeable
F9-26	0xF91A	Fault subcode of the 3rd (latest) fault	0	0	-	Unchangeable
F9-27	0xF91B	Frequency upon the 2nd fault	0	0	-	Unchangeable
F9-28	0xF91C	Current upon the 2nd fault	0	0	-	Unchangeable
F9-29	0xF91D	Bus voltage upon the 2nd fault	0	0	-	Unchangeable
F9-30	0xF91E	Input terminal state upon the 2nd fault	0	0	-	Unchangeable
F9-31	0xF91F	Output terminal state upon the 2nd fault	0	0	-	Unchangeable
F9-32	0xF920	AC drive state upon the 2nd fault	0	0	-	Unchangeable
F9-33	0xF921	Power-on time upon the 2nd fault	0	0	-	Unchangeable
F9-34	0xF922	Running time upon the 2nd fault	0	0	-	Unchangeable
F9-35	0xF923	IGBT temperature upon the 2nd fault	0	0	-	Unchangeable
F9-36	0xF924	Fault subcode upon the 2nd fault	0	0	-	Unchangeable
F9-37	0xF925	Frequency upon the 1st fault	0	0	-	Unchangeable
F9-38	0xF926	Current upon the 1st fault	0	0	-	Unchangeable
F9-39	0xF927	Bus voltage upon the 1st fault	0	0	-	Unchangeable
F9-40	0xF928	Input terminal state upon the 1st fault	0	0	-	Unchangeable
F9-41	0xF929	Output terminal state upon the 1st fault	0	0	-	Unchangeable
F9-42	0xF92A	AC drive state upon the 1st fault	0	0	-	Unchangeable
F9-43	0xF92B	Power-on time upon the 1st fault	0	0	-	Unchangeable
F9-44	0xF92C	Running time upon the 1st fault	0	0	-	Unchangeable
F9-45	0xF92D	IGBT temperature upon the 1st fault	0	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-46	0xF92E	Fault subcode upon the 1st fault	0	0	-	Unchangeable
F9-47	0xF92F	Protection action selection 0 upon fault	0 to 55555	500	-	At stop
F9-48	0xF930	Protection action selection 1 upon fault	Ones: E11 0: Coast to stop 1: Decelerate to stop 2: Special action 4: Warning 5: Cancel Tens: Reserved 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel Hundreds: E13 0: Coast to stop 1: Decelerate to stop 2: Special action 4: Warning 5: Cancel Thousands: E14 0: Coast to stop Ten thousands: E15 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	10050	-	At stop
F9-49	0xF931	Protection action selection 2 upon fault	Ones: Value of E16 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Tens: Reserved 5: Disable Hundreds: Reserved 0: Coast to stop Thousands: Value of E19 0: Coast to stop 4: Warning 5: Disable Ten thousands: Reserved 5: Disable	50050	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-50	0xF932	Protection action selection 3 upon fault	Ones: Value of E21 0: Coast to stop Tens: Value of E22 0: Coast to stop Hundreds: Value of E23 0: Coast to stop 5: Disable Thousands: Reserved 5: Disable Ten thousands: Value of E25 2: Decelerate to stop 5: Disable	25000	-	At stop
F9-51	0xF933	Protection action selection 4 upon fault	Ones: Value of E26 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Tens: Value of E27 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Hundreds: Value of E28 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Thousands: Value of E29 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Ten thousands: Value of E30 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable	51111	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-52	0xF934	Protection action selection 5 upon fault	Ones: Value of E31 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Tens: Reserved 5: Disable Hundreds: Reserved 5: Disable Thousands: Value of E42 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Ten thousands: Value of E43 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable	551	-	At stop
F9-53	0xF935	Protection action selection 6 upon fault	Ones: Value of E45 0: Coast to stop 1: Decelerate to stop 4: Warning 5: Disable Tens: Reserved 5: Disable Hundreds: Reserved 5: Disable Thousands: Reserved 5: Disable Ten thousands: Value of E80 0: Coast to stop 1: Decelerate to stop 5: Disable	5500	-	At stop
F9-54	0xF936	Frequency for continuing to run upon fault	0: Current running frequency 1: Frequency reference 2: Frequency upper limit 3: Frequency lower limit 4: Backup frequency upon error	1	-	Real-time
F9-55	0xF937	Backup frequency reference upon error	0.0% to 100.0%	100.0	%	Real-time
F9-57	0xF939	Motor overheat protection threshold 1	0°C to 200°C	110	°C	Real-time
F9-58	0xF93A	Motor overheat warning threshold 1	0°C to 200°C	90	°C	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-59	0xF93B	Motor overheat protection threshold 2	0°C to 200°C	110	°C	Real-time
F9-60	0xF93C	Motor overheat warning threshold 2	0°C to 200°C	90	°C	Real-time
F9-61	0xF93D	Motor overheat protection threshold 3	0°C to 200°C	110	°C	Real-time
F9-62	0xF93E	Motor overheat warning threshold 3	0°C to 200°C	90	°C	Real-time
F9-63	0xF93F	Power dip ride-through action	0: Disable 1: Deceleration 2: Decelerate to stop	0	-	At stop
F9-64	0xF940	Threshold for recovery from power dip ride-through	8.0% to 10.0%	8.5	%	Real-time
F9-65	0xF941	Time threshold for voltage recovery from power dip ride-through	0.0s to 100.0s	0.5	s	Real-time
F9-66	0xF942	Voltage threshold for enabling power dip ride-through	60% to 100%	80	%	Real-time
F9-67	0xF943	Alarm threshold of continuous frame loss times for I/O module	1 to 1000	60	-	At stop
F9-68	0xF944	Load loss detection level	0.0% to 100.0%	10.0	%	Real-time
F9-69	0xF945	Load loss detection time	0.1s to 60.0s	1.0	s	Real-time
F9-71	0xF947	Overspeed detection level	0.0% to 50.0%	5.0	%	Real-time
F9-72	0xF948	Overspeed detection time	0.0 to 60.0	1.0	-	Real-time
F9-73	0xF949	Detection level for excessive speed deviation	0.0% to 50.0%	20.0	%	Real-time
F9-74	0xF94A	Detection time for excessive speed deviation	0.0s to 60.0s	5.0	s	Real-time
F9-75	0xF94B	Power dip ride-through gain	0 to 100	40	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
F9-76	0xF94C	Power dip ride-through integral	0 to 100	30	-	Real-time
F9-77	0xF94D	Deceleration time of power dip ride-through	0.0s to 300.0s	20.0	s	Real-time
FA-00	0xFA00	PID reference source	0: FA-01 1: AI1 2: AI2 3: AI3 4: Reserved 5: Communication 6: Multi-reference	0	-	Real-time
FA-01	0xFA01	PID reference	0.0% to 100.0%	50.0	%	Real-time
FA-02	0xFA02	PID feedback source	0: AI1 1: AI2 2: AI3 3: AI1 – AI2 4: Reserved 5: Communication setting 6: AI1 + AI2 7: Max. (AI1 , AI2) 8: Min. (AI1 , AI2)	0	-	Real-time
FA-03	0xFA03	PID action direction	0: Positive effect 1: Negative effect	0	-	Real-time
FA-04	0xFA04	PID reference feedback range	0 to 65535	1000	-	Real-time
FA-05	0xFA05	Proportional gain Kp1	0.0 to 1000.0	20.0	-	Real-time
FA-06	0xFA06	Integral time Ti1	0.01s to 100.00s	2.00	s	Real-time
FA-07	0xFA07	Differential time Td1	0.000s to 10.000s	0.000	s	Real-time
FA-08	0xFA08	PID reverse cut-off frequency	0.00 Hz to 655.35 Hz	2.00	Hz	Real-time
FA-09	0xFA09	PID deviation limit	0.0% to 100.0%	0.0	%	Real-time
FA-10	0xFA0A	PID differential limit	0.00% to 100.00%	0.10	%	Real-time
FA-11	0xFA0B	PID reference change time	0.00s to 650.00s	0.00	s	Real-time
FA-12	0xFA0C	PID feedback filter time	0.00s to 60.00s	0.00	s	Real-time
FA-13	0xFA0D	PID deviation gain	0.0% to 100.0%	100.0	%	Real-time
FA-15	0xFA0F	Proportional gain Kp 2	0.0 to 1000.0	20.0	-	Real-time
FA-16	0xFA10	Integral time Ti 2	0.01s to 100.00s	2.00	s	Real-time
FA-17	0xFA11	Differential time Td 2	0.000s to 10.000s	0.000	s	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FA-18	0xFA12	PID parameter switchover condition	0: No switchover 1: Switchover by DI 2: Automatic switchover based on deviation 3: Switchover based on running frequency 6: Automatic adjustment based on roll diameter 7: Automatic adjustment based on maximum roll diameter percentage	0	-	Real-time
FA-19	0xFA13	PID parameter switchover deviation 1	0.0% to 6553.5%	20.0	%	Real-time
FA-20	0xFA14	PID parameter switchover deviation 2	0.0% to 100.0%	80.0	%	Real-time
FA-21	0xFA15	PID initial value	0.0% to 100.0%	0.0	%	Real-time
FA-22	0xFA16	Hold time of PID initial value	0.00s to 650.00s	0.00	s	Real-time
FA-23	0xFA17	Maximum deviation between two PID outputs in forward direction	0.00% to 100.00%	1.00	%	Real-time
FA-24	0xFA18	Maximum deviation between two PID outputs in reverse direction	0.00% to 100.00%	1.00	%	Real-time
FA-25	0xFA19	PID integral property	0: Invalid 1: Valid	0	-	Real-time
FA-26	0xFA1A	Detection level of PID feedback loss	0.0% to 100.0%	0.0	%	Real-time
FA-27	0xFA1B	Detection time of PID feedback loss	0.0s to 20.0s	0.0	s	Real-time
FB-00	0xFB00	Wobble setting mode	0: Relative to the central frequency 1: Relative to the maximum frequency	0	-	Real-time
FB-01	0xFB01	Wobble frequency amplitude	0.0% to 100.0%	0.0	%	Real-time
FB-02	0xFB02	Jump frequency amplitude	0.0% to 50.0%	0.0	%	Real-time
FB-03	0xFB03	Wobble frequency cycle	0.1s to 3000.0s	10.0	s	Real-time
FB-04	0xFB04	Triangular wave rising time of wobble frequency	0.1% to 100.0%	50.0	%	Real-time
FB-05	0xFB05	Length reference	0 m to 65535 m	1000	m	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FB-06	0xFB06	Actual length	0 m to 65535 m	0	m	Real-time
FB-07	0xFB07	Number of pulses per meter	0.1 to 6553.5	100.0	-	Real-time
FB-08	0xFB08	Set count value	1 to 65535	1000	-	Real-time
FB-09	0xFB09	Designated count value	1 to 65535	1000	-	Real-time
FC-00	0xFC00	Multi-reference 0	-100.0% to 100.0%	0.0	%	Real-time
FC-01	0xFC01	Multi-reference 1	-100.0% to 100.0%	0.0	%	Real-time
FC-02	0xFC02	Multi-reference 2	-100.0% to 100.0%	0.0	%	Real-time
FC-03	0xFC03	Multi-reference 3	-100.0% to 100.0%	0.0	%	Real-time
FC-04	0xFC04	Multi-reference 4	-100.0% to 100.0%	0.0	%	Real-time
FC-05	0xFC05	Multi-reference 5	-100.0% to 100.0%	0.0	%	Real-time
FC-06	0xFC06	Multi-reference 6	-100.0% to 100.0%	0.0	%	Real-time
FC-07	0xFC07	Multi-reference 7	-100.0% to 100.0%	0.0	%	Real-time
FC-08	0xFC08	Multi-reference 8	-100.0% to 100.0%	0.0	%	Real-time
FC-09	0xFC09	Multi-reference 9	-100.0% to 100.0%	0.0	%	Real-time
FC-10	0xFC0A	Multi-reference 10	-100.0% to 100.0%	0.0	%	Real-time
FC-11	0xFC0B	Multi-reference 11	-100.0% to 100.0%	0.0	%	Real-time
FC-12	0xFC0C	Multi-reference 12	-100.0% to 100.0%	0.0	%	Real-time
FC-13	0xFC0D	Multi-reference 13	-100.0% to 100.0%	0.0	%	Real-time
FC-14	0xFC0E	Multi-reference 14	-100.0% to 100.0%	0.0	%	Real-time
FC-15	0xFC0F	Multi-reference 15	-100.0% to 100.0%	0.0	%	Real-time
FC-16	0xFC10	Simple PLC operation mode	0: Stop after operating for one cycle 1: Keep final values after operating for one cycle 2: Operating cyclically	0	-	Real-time
FC-17	0xFC11	Simple PLC retention selection upon power failure	Ones: 0: Non-retentive upon power failure 1: Retentive upon power failure Tens: 0: Non-retentive upon stop 1: Retentive upon stop	0	-	Real-time
FC-18	0xFC12	Operating time of multi-speed 0 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-19	0xFC13	Acceleration/Deceleration time of multi-speed 0 set by simple PLC	0 to 3	0	-	Real-time
FC-20	0xFC14	Operating time of multi-speed 1 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FC-21	0xFC15	Acceleration/ Deceleration time multi-speed 1 set by simple PLC	0 to 3	0	-	Real-time
FC-22	0xFC16	Operating time of multi-speed 2 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-23	0xFC17	Acceleration/ Deceleration time of multi-speed 2 set by simple PLC	0 to 3	0	-	Real-time
FC-24	0xFC18	Operating time of multi-speed 3 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-25	0xFC19	Acceleration/ Deceleration time multi-speed 3 set by simple PLC	0 to 3	0	-	Real-time
FC-26	0xFC1A	Operating time of multi-speed 4 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-27	0xFC1B	Acceleration/ Deceleration time multi-speed 4 set by simple PLC	0 to 3	0	-	Real-time
FC-28	0xFC1C	Operating time of multi-speed 5 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-29	0xFC1D	Acceleration/ Deceleration time of multi-speed 5 set by simple PLC	0 to 3	0	-	Real-time
FC-30	0xFC1E	Operating time of multi-speed 6 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-31	0xFC1F	Acceleration/ Deceleration time of multi-speed 6 set by simple PLC	0 to 3	0	-	Real-time
FC-32	0xFC20	Operating time of multi-speed 7 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FC-33	0xFC21	Acceleration/ Deceleration time of multi-speed 7 set by simple PLC	0 to 3	0	-	Real-time
FC-34	0xFC22	Operating time of multi-speed 8 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-35	0xFC23	Acceleration/ Deceleration time of multi-speed 8 set by simple PLC	0 to 3	0	-	Real-time
FC-36	0xFC24	Operating time of multi-speed 9 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-37	0xFC25	Acceleration/ Deceleration time of multi-speed 9 set by simple PLC	0 to 3	0	-	Real-time
FC-38	0xFC26	Operating time of multi-speed 10 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-39	0xFC27	Acceleration/ Deceleration time of multi-speed 10 set by simple PLC	0 to 3	0	-	Real-time
FC-40	0xFC28	Operating time of multi-speed 11 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-41	0xFC29	Acceleration/ Deceleration time of multi-speed 11 set by simple PLC	0 to 3	0	-	Real-time
FC-42	0xFC2A	Operating time of multi-speed 12 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-43	0xFC2B	Acceleration/ Deceleration time of multi-speed 12 set by simple PLC	0 to 3	0	-	Real-time
FC-44	0xFC2C	Operating time of multi-speed 13 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FC-45	0xFC2D	Acceleration/Deceleration time of multi-speed 13 set by simple PLC	0 to 3	0	-	Real-time
FC-46	0xFC2E	Operating time of multi-speed 14 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-47	0xFC2F	Acceleration/Deceleration time of multi-speed 14 set by simple PLC	0 to 3	0	-	Real-time
FC-48	0xFC30	Operating time of multi-speed 15 set by simple PLC	0.0s (h) to 6553.5s (h)	0.0	s (h)	Real-time
FC-49	0xFC31	Acceleration/Deceleration time of multi-speed 15 set by simple PLC	0 to 3	0	-	Real-time
FC-50	0xFC32	PLC operating time unit	0: second (s) 1: hour (h)	0	-	Real-time
FC-51	0xFC33	Multi-reference 0 setting mode	0: FC-00 (Multi-reference 0) 1: AI1 2: AI2 3: AI3 4: Reserved 5: PID 6: F0-08 (Preset frequency, which can be changed by pressing UP or DOWN key)	0	-	Real-time
FD-02	0xFD02	Local address	0 to 247	1	-	Unchangeable
FD-03	0xFD03	Modbus response delay	0 ms to 20 ms	2	ms	Real-time
FD-04	0xFD04	Modbus communication timeout	0.0s to 60.0s	0.0	s	Unchangeable
FD-06	0xFD06	Communication fault reset	0 to 1	1	-	At stop
FD-08	0xFD08	Last allocated station number	0 to 65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FD-09	0xFD09	Communication state	Ones: CANopen 0: Stopped 1: Initialized 2: Pre-running 8: Running Tens: CANlink 0: Stopped 1: Initialized 2: Pre-running 8: Running Hundreds: Reserved 0: Stopped 1: Initialized 2: - 8: Running	0	-	Unchangeable
FD-10	0xFD0A	CANopen/CANlink switchover	1: CANopen 2: CANlink	1	-	Unchangeable
FD-11	0xFD0B	Canopen 402	0: Disable 1: Enable	0	-	At stop
FD-13	0xFD0D	CAN station number	1–127	1	-	At stop
FD-14	0xFD0E	Number of CAN frames received per unit of time	0 to 65535	1	-	Unchangeable
FD-19	0xFD13	CAN communication disconnection coefficient	1–15	5	-	At stop
FD-92	0xFD5C	Communication version	0.00–655.35	0.00	-	Unchangeable
FE-00	0xFE00	User-defined parameter 0	0	0	-	Real-time
FE-01	0xFE01	User-defined parameter 1	0	0	-	Real-time
FE-02	0xFE02	User-defined parameter 2	0	0	-	Real-time
FE-03	0xFE03	User-defined parameter 3	0	0	-	Real-time
FE-04	0xFE04	User-defined parameter 4	0	0	-	Real-time
FE-05	0xFE05	User-defined parameter 5	0	0	-	Real-time
FE-06	0xFE06	User-defined parameter 6	0	0	-	Real-time
FE-07	0xFE07	User-defined parameter 7	0	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FE-08	0xFE08	User-defined parameter 8	0	0	-	Real-time
FE-09	0xFE09	User-defined parameter 9	0	0	-	Real-time
FE-10	0xFE0A	User-defined parameter 10	0	0	-	Real-time
FE-11	0xFE0B	User-defined parameter 11	0	0	-	Real-time
FE-12	0xFE0C	User-defined parameter 12	0	0	-	Real-time
FE-13	0xFE0D	User-defined parameter 13	0	0	-	Real-time
FE-14	0xFE0E	User-defined parameter 14	0	0	-	Real-time
FE-15	0xFE0F	User-defined parameter 15	0	0	-	Real-time
FE-16	0xFE10	User-defined parameter 16	0	0	-	Real-time
FE-17	0xFE11	User-defined parameter 17	0	0	-	Real-time
FE-18	0xFE12	User-defined parameter 18	0	0	-	Real-time
FE-19	0xFE13	User-defined parameter 19	0	0	-	Real-time
FE-20	0xFE14	User-defined parameter 20	0	0	-	Real-time
FE-21	0xFE15	User-defined parameter 21	0	0	-	Real-time
FE-22	0xFE16	User-defined parameter 22	0	0	-	Real-time
FE-23	0xFE17	User-defined parameter 23	0	0	-	Real-time
FE-24	0xFE18	User-defined parameter 24	0	0	-	Real-time
FE-25	0xFE19	User-defined parameter 25	0	0	-	Real-time
FE-26	0xFE1A	User-defined parameter 26	0	0	-	Real-time
FE-27	0xFE1B	User-defined parameter 27	0	0	-	Real-time
FE-28	0xFE1C	User-defined parameter 28	0	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FE-29	0xFE1D	User-defined parameter 29	0	0	-	Real-time
FE-30	0xFE1E	User-defined parameter 30	0	0	-	Real-time
FE-31	0xFE1F	User-defined parameter 31	0	0	-	Real-time
FF-00	0xFF00	Manufacturer password	0-65535	0	-	Real-time
FF-01	0xFF01	AC drive model	5 to 208	11	-	At stop
FF-03	0xFF03	AC drive power	0.0 kW to 6553.5 kW	3.7	kW	Unchangeable
FF-04	0xFF04	Temperature curve	1 to 2	2	-	At stop
FF-05	0xFF05	U and V phase current sampling gain deviation	90.00% to 110.00%	100.00	%	At stop
FF-06	0xFF06	U and W phase current sampling gain deviation	90.0% to 110.0%	100.0	%	At stop
FF-07	0xFF07	Transistor voltage drop	0.00-655.35	0.00	-	Unchangeable
FF-08	0xFF08	Voltage correction coefficient	85.0% to 150.0%	100.0	%	Real-time
FF-09	0xFF09	Current correction coefficient	85.0% to 115.0%	100.0	%	Real-time
FF-12	0xFF0C	Setting of any memory data address	0 to 1	0	-	Real-time
FP-00	0x1F00	User password	0 to 65535	0	-	Unchangeable
FP-01	0x1F01	Parameters initialization	0: No operation 1: Restore default settings 1 2: Clear records 4: Back up current user parameters 501: Restore user backup parameters 503: Restore default settings 2	1	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
FP-02	0x1F02	Parameter display	Ones: 0: Hidden 1: Displayed Tens: 0: Hidden 1: Displayed Hundreds: 0: Hidden 1: Displayed Thousands: 0: Hidden 1: Displayed	111	-	Real-time
FP-03	0x1F03	Display of individualized parameters	Ones: 0: Hidden 1: Displayed Tens: 0: Hidden 1: Displayed	0	-	Real-time
FP-04	0x1F04	Parameter modification function	0: Enable 1: Disable	0	-	Real-time
A0-00	0xA000	Speed/Torque control mode	0: Speed control 1: Torque control	0	-	At stop
A0-01	0xA001	Torque reference source	0: A0-03 1: AI1 2: AI2 3: AI3 4: Reserved 5: Communication setting (1000H) 6: Min. (AI1, AI2) 7: Max. (AI1, AI2)	0	-	At stop
A0-03	0xA003	Torque digital setting	-200.0% to 200.0%	1.0	%	Real-time
A0-04	0xA004	Torque filter time	0.000s to 5.000s	0.000	s	Real-time
A0-05	0xA005	Speed limit digital setting	-120.0% to 120.0%	0.0	%	Real-time
A0-07	0xA007	Torque acceleration time	0.00s to 650.00s	1.00	s	Real-time
A0-08	0xA008	Torque deceleration time	0.00s to 650.00s	1.00	s	Real-time
A0-09	0xA009	Speed limit reference source	0: A0-05 1: Frequency source	0	-	Real-time
A0-10	0xA00A	Speed limit offset	0.00-655.35	5.00	-	Real-time
A0-11	0xA00B	Active mode of speed limit offset	0: Bidirectional offset 1: Unidirectional offset	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A0-12	0xA00C	Frequency acceleration time	0.0s to 6500.0s	1.0	s	Real-time
A0-13	0xA00D	Frequency deceleration time	0.0s to 6500.0s	1.0	s	Real-time
A0-14	0xA00E	Torque mode switchover	0: No switchover 1: Switch to speed control mode upon stop. 2: Set the target torque to 0 upon stop.	1	-	At stop
A1-00	0xA100	VDI1 function selection	0: No function 1: Forward run (FWD) 2: Reverse run (REV) 3: Three-wire control 4: Forward jog (FJOG) 5: Reverse jog (RJOG) 6: Function as the UP key 7: Function as the DOWN key 8: Clear information set by UP/DOWN keys on the operating panel or by terminals functioning as the UP/DOWN keys 9: Fault reset (RESET) 10: External fault NO input 11: External fault NC input 12: User-defined fault 1 13: User-defined fault 2 14: Multi-reference terminal 1 15: Multi-reference terminal 2 16: Multi-reference terminal 3 17: Multi-reference terminal 4 18: Acceleration/deceleration selection terminal 1 19: Acceleration/deceleration selection terminal 2 20: Acceleration/Deceleration prohibition 21: Command source switchover terminal 1 22: Command source switchover terminal 2 23: Frequency reference switchover 24: Switchover between main frequency X and preset frequency 25: Switchover between auxiliary frequency Y and preset frequency (to be continued)	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A1-00	0xA100	VDI1 function selection	(continued) 26: Frequency modification function 27: Counter input 28: Counter reset 29: Length count input 30: Length reset 31: PID pause 32: PID integral pause 33: PID parameter switchover 34: Opposite to PID action direction 35: Torque control prohibition 36: Speed control/Torque control switchover 38: Flying start 39: Immediate DC braking 40: Deceleration DC braking 41: External stop terminal 1 42: External stop terminal 2 43: Running pause 44: Coast to stop 45: Emergency stop 46: Motor selection terminal 47: Clear current running time 48: Two-wire/Three-wire motion control switchover 49: PLC state reset 50: Wobble frequency pause 94: Brake feedback 1 95: Brake feedback 2	0	-	At stop
A1-01	0xA101	VDI2 function selection	Same as A1-00	0	-	At stop
A1-02	0xA102	VDI3 function selection	Same as A1-00	0	-	At stop
A1-03	0xA103	VDI4 function selection	Same as A1-00	0	-	At stop
A1-04	0xA104	VDI5 function selection	Same as A1-00	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A1-05	0xA105	VDI state setting mode	Ones: 0: Set by A1-06 1: DO state 2: DI state Tens: 0: Set by A1-06 1: DO state 2: DI state Hundreds: 0: Set by A1-06 1: DO state 2: DI state Thousands: 0: Set by A1-06 1: DO state 2: DI state Ten thousands: 0: Set by A1-06 1: DO state 2: DI state	0	-	At stop
A1-06	0xA106	VDI state selection	Ones: 0: Invalid 1: Valid Tens: 0: Invalid 1: Valid Hundreds: 0: Invalid 1: Valid Thousands: 0: Invalid 1: Valid Ten thousands: 0: Invalid 1: Valid	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A1-07	0xA107	AI1 function (used as DI)	0: No function 1: Forward run (FWD) 2: Reverse run (REV) 3: Three-wire control 4: Forward jog (FJOG) 5: Reverse jog (RJOG) 6: Function as the UP key 7: Function as the DOWN key 8: Clear information set by UP/DOWN keys on the operating panel or by terminals functioning as the UP/DOWN keys 9: Fault reset (RESET) 10: External fault NO input 11: External fault NC input 12: User-defined fault 1 13: User-defined fault 2 14: Multi-reference terminal 1 15: Multi-reference terminal 2 16: Multi-reference terminal 3 17: Multi-reference terminal 4 18: Acceleration/deceleration selection terminal 1 19: Acceleration/deceleration selection terminal 2 20: Acceleration/Deceleration prohibition 21: Command source switchover terminal 1 22: Command source switchover terminal 2 23: Frequency reference switchover 24: Switchover between main frequency X and preset frequency 25: Switchover between auxiliary frequency Y and preset frequency (to be continued)	0	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A1-07	0xA107	AI1 function (used as DI)	(continued) 26: Frequency modification function 27: Counter input 28: Counter reset 29: Length count input 30: Length reset 31: PID pause 32: PID integral pause 33: PID parameter switchover 34: Opposite to PID action direction 35: Torque control prohibition 36: Speed control/Torque control switchover 38: Flying start 39: Immediate DC braking 40: Deceleration DC braking 41: External stop terminal 1 42: External stop terminal 2 43: Running pause 44: Coast to stop 45: Emergency stop 46: Motor selection terminal 47: Clear current running time 48: Two-wire/Three-wire motion control switchover 49: PLC state reset 50: Wobble frequency pause 94: Brake feedback 1 95: Brake feedback 2	0	-	At stop
A1-08	0xA108	AI2 function (used as DI)	Same as A1-07	0	-	At stop
A1-09	0xA109	AI3 function (used as DI)	Same as A1-07	0	-	At stop
A1-10	0xA10A	AI active mode (used as DI)	Ones: 0: Active high 1: Active low Tens: 0: Active high 1: Active low Hundreds: 0: Active high 1: Active low	0	-	At stop
A5-00	0xA500	Frequency upper limit for DPWM switchover	0.00 Hz to 50.00 Hz	12.00	Hz	Real-time
A5-01	0xA501	PWM modulation mode	0: Asynchronous modulation 1: Synchronous modulation	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A5-02	0xA502	Dead-zone compensation	0: Disable 1: Enable	1	-	At stop
A5-03	0xA503	Random PWM depth	0-10	0	-	Real-time
A5-04	0xA504	Fast current limit	0: Disable 1: Enable	0	-	Real-time
A5-05	0xA505	Sampling delay time	1 to 13	5	-	Real-time
A5-06	0xA506	Undervoltage threshold	150.0 V to 455.0 V	350.0	V	Real time
A5-07	0xA507	SVC optimization mode	0: No optimization 1: Optimization mode 1 2: Optimization mode 2	1	-	At stop
A6-00	0xA600	Minimum input of curve 4	-10.00 V to 10.00 V	0.00	V	Real-time
A6-01	0xA601	Percentage corresponding to minimum input of curve 4	-100.0% to 100.0%	0.0	%	Real-time
A6-02	0xA602	Input of curve 4 inflection point 1	-10.00 V to 10.00 V	3.00	V	Real-time
A6-03	0xA603	Percentage corresponding to curve 4 inflection point 1 input	-100.0% to 100.0%	30.0	%	Real-time
A6-04	0xA604	Input of curve 4 inflection point 2	-10.00 V to 10.00 V	6.00	V	Real-time
A6-05	0xA605	Percentage corresponding to curve 4 inflection point 2 input	-100.0% to 100.0%	60.0	%	Real-time
A6-06	0xA606	Maximum input of curve 4	-10.00 V to 10.00 V	10.00	V	Real-time
A6-07	0xA607	Percentage corresponding to maximum input of curve 4	-100.0% to 100.0%	100.0	%	Real-time
A6-08	0xA608	Minimum input of curve 5	-10.00 V to 10.00 V	-10.00	V	Real-time
A6-09	0xA609	Percentage corresponding to minimum input of curve 5	-100.0% to 100.0%	-100.0	%	Real-time
A6-10	0xA60A	Input of curve 5 inflection point 1	-10.00 V to 10.00 V	-3.00	V	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A6-11	0xA60B	Percentage corresponding to curve 5 inflection point 1 input	-100.0% to 100.0%	-30.0	%	Real-time
A6-12	0xA60C	Input of curve 5 inflection point 2	-10.00 V to 10.00 V	3.00	V	Real-time
A6-13	0xA60D	Percentage corresponding to curve 5 inflection point 2 input	-100.0% to 100.0%	30.0	%	Real-time
A6-14	0xA60E	Maximum input of curve 5	-10.00 V to 10.00 V	10.00	V	Real-time
A6-15	0xA60F	Percentage corresponding to maximum input of curve 5	-100.0% to 100.0%	100.0	%	Real-time
A6-16	0xA610	AI1 gain	-10.00 to 10.00	1.00	-	Real-time
A6-17	0xA611	AI1 offset	-100.0% to 100.0%	0.0	%	Real-time
A6-18	0xA612	AI2 gain	-10.00 to 10.00	1.00	-	Real-time
A6-19	0xA613	AI2 offset	-100.0% to 100.0%	0.0	%	Real-time
A6-20	0xA614	AI3 gain	-10.00 to 10.00	1.00	-	Real-time
A6-21	0xA615	AI3 offset	-100.0% to 100.0%	0.0	%	Real-time
A6-24	0xA618	AI1 jump point	-100.0% to 100.0%	0.0	%	Real-time
A6-25	0xA619	AI1 jump amplitude	0.0% to 100.0%	0.5	%	Real-time
A6-26	0xA61A	AI2 jump point	-100.0% to 100.0%	0.0	%	Real-time
A6-27	0xA61B	AI2 jump amplitude	0.0% to 100.0%	0.5	%	Real-time
A6-28	0xA61C	AI3 jump point	-100.0% to 100.0%	0.0	%	Real-time
A6-29	0xA61D	AI3 jump amplitude	0.0% to 100.0%	0.5	%	Real-time
A9-00	0xA900	Online auto-tuning on rotor time constant of asynchronous motor	0: Disable 1: Enable	0	-	Real-time
A9-04	0xA904	Maximum torque limit coefficient in the field-weakening range for asynchronous motors	30 to 150	80	-	Real-time
A9-05	0xA905	Speed filter of asynchronous motor in SVC mode	5 ms to 32 ms	15	ms	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A9-06	0xA906	Speed feedback processing of asynchronous motor during speed control in SVC mode	0: No operation 1: Minimum synchronization frequency limited based on load change 2: Fixed current output during low-speed operation 3: Fixed current output during low-speed operation	0	-	Real-time
A9-07	0xA907	Magnetic field regulation bandwidth of asynchronous motor in SVC mode	0.0 to 8.0	2.0	-	Real-time
A9-08	0xA908	Low-speed running current of asynchronous motor in SVC mode	30 to 170	100	-	Real-time
A9-09	0xA909	Switchover frequency for fixed current output of asynchronous motor in SVC mode	2.0 Hz to 100.0 Hz	3.0	Hz	Real-time
A9-10	0xA90A	Speed fluctuation suppression coefficient of asynchronous motor in SVC mode	0 to 6	3	-	Real-time
A9-11	0xA90B	Acceleration/Deceleration time of asynchronous motors in SVC mode	0.1s to 3000.0s	20.0	s	Real-time
A9-12	0xA90C	Quick auto-tuning of stator resistance before asynchronous motor start	0: Disable 1: Enable	0	-	Real-time
A9-13	0xA90D	Quick auto-tuning of stator resistance coefficient 1 for asynchronous motor	0 to 65535	10	-	At stop
A9-14	0xA90E	Quick auto-tuning of stator resistance coefficient 2 of asynchronous motor	0 to 65535	10	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A9-15	0xA90F	Quick auto-tuning of stator resistance coefficient 3 for asynchronous motor	0 to 65535	0	-	At stop
A9-17	0xA911	Synchronous motor real-time angle	0 to 65535	0	-	Unchangeable
A9-18	0xA912	Initial position angle detection of synchronous motor	0: Detected every time upon operation 1: Not detected 2: Detected upon initial power-on	0	-	Real-time
A9-20	0xA914	Field weakening method selection	0: Automatic mode 1: Synchronous motor adjustment mode 2: Synchronous motor hybrid mode 3: Disable	1	-	At stop
A9-21	0xA915	Field weakening gain of synchronous motor	0 to 50	5	-	Real-time
A9-22	0xA916	Upper limit margin of synchronous motor output voltage	0% to 50%	5	%	Real-time
A9-23	0xA917	Maximum torque output tuning gain of synchronous motor	20% to 300%	100	%	Real-time
A9-24	0xA918	Adjustment gain of calculated excitation current of synchronous motor	40% to 200%	100	%	Real-time
A9-25	0xA919	Integral gain for speed estimation of synchronous motor in SVC mode	5 to 1000	30	-	Real-time
A9-26	0xA91A	Proportional gain for speed estimation of synchronous motor in SVC mode	5 to 300	20	-	Real-time
A9-27	0xA91B	Speed estimation filter of synchronous motor in SVC mode	10 to 2000	100	-	Real-time
A9-28	0xA91C	Minimum carrier frequency of synchronous motor in SVC mode	8 to 65535	20	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A9-29	0xA91D	Low-speed excitation current of synchronous motor in SVC mode	0% to 80%	30	%	Real-time
A9-40	0xA928	Low-speed closed-loop current function (for PMWVC)	0: Disable 1: Enable	0	-	At stop
A9-41	0xA929	Low-speed closed-loop current (for PMWVCVC)	30 to 200	50	-	At stop
A9-42	0xA92A	Oscillation suppression damping coefficient (for PMWVCVC)	0 to 500	100	-	Real-time
A9-43	0xA92B	Reserved	0 to 65535	0	-	Unchangeable
A9-44	0xA92C	Initial position compensation angle (for PMWVCVC)	0 to 5	0	-	At stop
A9-45	0xA92D	Synchronous motor low-speed handling	0: Disable 1: Enable	0	-	At stop
A9-46	0xA92E	Low-speed handling switchover frequency of synchronous motor	0.01 Hz to 655.35 Hz	5.00	Hz	At stop
A9-47	0xA92F	Low-speed handling current of synchronous motor	10 to 200	100	-	At stop
A9-48	0xA930	Low-speed handling feedback suppression coefficient of synchronous motor	0 to 300	32	-	At stop

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
A9-51	0xA933	Advanced settings for parameter auto-tuning of asynchronous motor	Ones: Rotor resistance and leakage inductance DC offset 0: Standard offset 1: Large offset Tens: Auto-tuning algorithm of new rotor resistance and leakage inductance 0: Disable 1: Enable Hundreds: New mutual inductance static auto-tuning algorithm 0: Disable 1: Enable Thousands: Stator resistance auto-tuning algorithm 0: Current open loop 1: Current closed loop	111	-	At stop
A9-52	0xA934	Feedback torque selection (displayed in U0-06)	0: The motoring torque direction is positive and the generating torque direction is negative. 1: The torque direction that is the same as the forward speed direction is positive, and the torque direction that is the same as the reverse speed direction is negative.	1	-	Real-time
AD-00	0xAD00	Start/Stop of background oscilloscope	0 to 1	1	-	Real-time
AD-01	0xAD01	Channel 1 parameter	0 to 999	0	-	Real-time
AD-02	0xAD02	Channel 2 parameter	0 to 999	0	-	Real-time
AD-03	0xAD03	Channel 3 parameter	0 to 999	0	-	Real-time
AD-04	0xAD04	Channel 4 parameter	0 to 999	0	-	Real-time
AD-05	0xAD05	Sampling interval (carrier period)	1 to 65535	1	-	Real-time
AD-06	0xAD06	Triggering object A	0 to 999	1	-	Real-time
AD-07	0xAD07	Triggering condition A	0: > 1: = 2: <	0	-	Real-time
AD-08	0xAD08	Triggering level A	0 to 65535	0	-	Real-time
AD-09	0xAD09	Triggering object B	0 to 999	1	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AD-10	0xAD0A	Triggering condition B	0: > 1: = 2: <	0	-	Real-time
AD-11	0xAD0B	Triggering level B	0 to 65535	0	-	Real-time
AD-12	0xAD0C	Triggering condition selection	0: Triggered when condition A is satisfied 1: Triggered when condition B is satisfied 2: Triggered when both conditions A and B are satisfied	0	-	Real-time
AD-13	0xAD0D	Carrier frequency cycle during data storage	0 to 65535	0	-	Unchangeable
AD-14	0xAD0E	Fault value	0 to 65535	0	-	Unchangeable
AD-15	0xAD0F	Data saving cycle	0: Carrier frequency cycle 1: 0.5 ms 2: 2 ms	0	-	Real-time
AD-16	0xAD10	Selection of data read by host controller	0: Read data from RAM 1: Read data from FLASH	0	-	Real-time
AD-17	0xAD11	Flash rewriting	0: Disable 1: Enable	1	-	Real-time
AF-00	0xAF00	RPDO1-SubIndex0-H	0-65535	0	-	Real-time
AF-01	0xAF01	RPDO1-SubIndex0-L	0-65535	0	-	Real-time
AF-02	0xAF02	RPDO1-SubIndex1-H	0-65535	0	-	Real-time
AF-03	0xAF03	RPDO1-SubIndex1-L	0-65535	0	-	Real-time
AF-04	0xAF04	RPDO1-SubIndex2-H	0-65535	0	-	Real-time
AF-05	0xAF05	RPDO1-SubIndex2-L	0-65535	0	-	Real-time
AF-06	0xAF06	RPDO1-SubIndex3-H	0-65535	0	-	Real-time
AF-07	0xAF07	RPDO1-SubIndex3-L	0-65535	0	-	Real-time
AF-08	0xAF08	RPDO2-SubIndex0-H	0 to 65535	0	-	Real-time
AF-09	0xAF09	RPDO2-SubIndex0-L	0 to 65535	0	-	Real-time
AF-10	0xAF0A	RPDO2-SubIndex1-H	0 to 65535	0	-	Real-time
AF-11	0xAF0B	RPDO2-SubIndex1-L	0 to 65535	0	-	Real-time
AF-12	0xAF0C	RPDO2-SubIndex2-H	0 to 65535	0	-	Real-time
AF-13	0xAF0D	RPDO2-SubIndex2-L	0 to 65535	0	-	Real-time
AF-14	0xAF0E	RPDO2-SubIndex3-H	0 to 65535	0	-	Real-time
AF-15	0xAF0F	RPDO2-SubIndex3-L	0 to 65535	0	-	Real-time
AF-16	0xAF10	RPDO3-SubIndex0-H	0 to 65535	0	-	Real-time
AF-17	0xAF11	RPDO3-SubIndex0-L	0 to 65535	0	-	Real-time
AF-18	0xAF12	RPDO3-SubIndex1-H	0 to 65535	0	-	Real-time
AF-19	0xAF13	RPDO3-SubIndex1-L	0 to 65535	0	-	Real-time
AF-20	0xAF14	RPDO3-SubIndex2-H	0 to 65535	0	-	Real-time
AF-21	0xAF15	RPDO3-SubIndex2-L	0 to 65535	0	-	Real-time
AF-22	0xAF16	RPDO3-SubIndex3-H	0 to 65535	0	-	Real-time
AF-23	0xAF17	RPDO3-SubIndex3-L	0 to 65535	0	-	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
AF-24	0xAF18	RPDO4-SubIndex0-H	0 to 65535	0	-	Real-time
AF-25	0xAF19	RPDO4-SubIndex0-L	0 to 65535	0	-	Real-time
AF-26	0xAF1A	RPDO4-SubIndex1-H	0 to 65535	0	-	Real-time
AF-27	0xAF1B	RPDO4-SubIndex1-L	0 to 65535	0	-	Real-time
AF-28	0xAF1C	RPDO4-SubIndex2-H	0 to 65535	0	-	Real-time
AF-29	0xAF1D	RPDO4-SubIndex2-L	0 to 65535	0	-	Real-time
AF-30	0xAF1E	RPDO4-SubIndex3-H	0 to 65535	0	-	Real-time
AF-31	0xAF1F	RPDO4-SubIndex3-L	0 to 65535	0	-	Real-time
AF-32	0xAF20	TPDO1-SubIndex0-H	0–65535	0	-	Real-time
AF-33	0xAF21	TPDO1-SubIndex0-L	0–65535	0	-	Real-time
AF-34	0xAF22	TPDO1-SubIndex1-H	0 to 65535	0	-	Real-time
AF-35	0xAF23	TPDO1-SubIndex1-L	0 to 65535	0	-	Real-time
AF-36	0xAF24	TPDO1-SubIndex2-H	0 to 65535	0	-	Real-time
AF-37	0xAF25	TPDO1-SubIndex2-L	0 to 65535	0	-	Real-time
AF-38	0xAF26	TPDO1-SubIndex3-H	0 to 65535	0	-	Real-time
AF-39	0xAF27	TPDO1-SubIndex3-L	0 to 65535	0	-	Real-time
AF-40	0xAF28	TPDO2-SubIndex0-H	0 to 65535	0	-	Real-time
AF-41	0xAF29	TPDO2-SubIndex0-L	0 to 65535	0	-	Real-time
AF-42	0xAF2A	TPDO2-SubIndex1-H	0 to 65535	0	-	Real-time
AF-43	0xAF2B	TPDO2-SubIndex1-L	0 to 65535	0	-	Real-time
AF-44	0xAF2C	TPDO2-SubIndex2-H	0 to 65535	0	-	Real-time
AF-45	0xAF2D	TPDO2-SubIndex2-L	0 to 65535	0	-	Real-time
AF-46	0xAF2E	TPDO2-SubIndex3-H	0 to 65535	0	-	Real-time
AF-47	0xAF2F	TPDO2-SubIndex3-L	0 to 65535	0	-	Real-time
AF-48	0xAF30	TPDO3-SubIndex0-H	0 to 65535	0	-	Real-time
AF-49	0xAF31	TPDO3-SubIndex0-L	0 to 65535	0	-	Real-time
AF-50	0xAF32	TPDO3-SubIndex1-H	0 to 65535	0	-	Real-time
AF-51	0xAF33	TPDO3-SubIndex1-L	0 to 65535	0	-	Real-time
AF-52	0xAF34	TPDO3-SubIndex2-H	0 to 65535	0	-	Real-time
AF-53	0xAF35	TPDO3-SubIndex2-L	0 to 65535	0	-	Real-time
AF-54	0xAF36	TPDO3-SubIndex3-H	0 to 65535	0	-	Real-time
AF-55	0xAF37	TPDO3-SubIndex3-L	0 to 65535	0	-	Real-time
AF-56	0xAF38	TPDO4-SubIndex0-H	0 to 65535	0	-	Real-time
AF-57	0xAF39	TPDO4-SubIndex0-L	0 to 65535	0	-	Real-time
AF-58	0xAF3A	TPDO4-SubIndex1-H	0 to 65535	0	-	Real-time
AF-59	0xAF3B	TPDO4-SubIndex1-L	0 to 65535	0	-	Real-time
AF-60	0xAF3C	TPDO4-SubIndex2-H	0 to 65535	0	-	Real-time
AF-61	0xAF3D	TPDO4-SubIndex2-L	0 to 65535	0	-	Real-time
AF-62	0xAF3E	TPDO4-SubIndex3-H	0 to 65535	0	-	Real-time
AF-63	0xAF3F	TPDO4-SubIndex3-L	0 to 65535	0	-	Real-time
AF-66	0xAF42	Number of valid RPDOs	0 to 65535	0	-	Unchangeable
AF-67	0xAF43	Number of valid TPDOs	0 to 65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
B7-00	0xB700	Target frequency limit	0.00 Hz to 20.00 Hz	2.00	Hz	Real-time
B7-01	0xB701	Brake release frequency (forward)	0.00 Hz to 20.00 Hz	2.00	Hz	Real-time
B7-02	0xB702	Brake release frequency (reverse)	0.00 Hz to 20.00 Hz	2.00	Hz	Real-time
B7-03	0xB703	Brake release torque (forward)	0.0% to 200.0%	30.0	%	Real-time
B7-04	0xB704	Brake release torque (reverse)	0.0% to 200.0%	30.0	%	Real-time
B7-05	0xB705	Brake release time	0.00s to 5.00s	0.50	s	Real-time
B7-06	0xB706	Brake applying frequency (forward)	0.00 Hz to 20.00 Hz	2.00	Hz	Real-time
B7-07	0xB707	Brake applying frequency (reverse)	0.00 Hz to 20.00 Hz	2.00	Hz	Real-time
B7-08	0xB708	Brake applying delay time	0.00s to 5.00s	0.00	s	Real-time
B7-09	0xB709	Brake applying time	0.00s to 5.00s	0.50	s	Real-time
B7-10	0xB70A	Excitation time at stop	0.00s to 500.00s	0.00	s	Real-time
B7-11	0xB70B	Restart waiting time	0.00s to 15.00s	0.30	s	Real-time
B7-12	0xB70C	Startup direction	0: Same as the running direction 1: Always forward	0	-	Real-time
B7-13	0xB70D	Pre-torque source	0: Digital setting 1: Pre-torque 2: Disable	2	-	Real-time
B7-14	0xB70E	Pre-torque setting value (forward)	0.0% to 200.0%	30.0	%	Real-time
B7-15	0xB70F	Pre-torque setting value (reverse)	0.0% to 200.0%	30.0	%	Real-time
B7-16	0xB710	Current acceleration/ deceleration time	0.00s to 5.00s	0.50	s	Real-time
B7-17	0xB711	Reverse running command	0: Disable 1: Enable (applicable to FVC) The AC drive does not support FVC; therefore, the value 1 is invalid.	0	-	Real-time
B7-18	0xB712	Brake release timeout period	0.00s to 5.00s	2.00	s	Real-time
B7-21	0xB715	Frequency exception detection cycle	0.00s to 1.00s	0.50	s	Real-time
B7-22	0xB716	Frequency following error	0% to 30%	20	%	Real-time

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
B7-23	0xB717	Frequency following detection cycle	0.00s to 1.00s	0.50	s	Real-time
B7-24	0xB718	Detection time for torque limit reach	0.00s to 5.00s	0.00	s	Real-time
U0-00	0x7000	Operating frequency	0.00 Hz	0.00	Hz	Unchangeable
U0-01	0x7001	Frequency reference	0.00 Hz	0.00	Hz	Unchangeable
U0-02	0x7002	Bus voltage	0.0 V	0.0	V	Unchangeable
U0-03	0x7003	Output voltage	0 V	0	V	Unchangeable
U0-04	0x7004	Output current	0.00 A	0.00	A	Unchangeable
U0-05	0x7005	Output power	0.0 kW	0.0	kW	Unchangeable
U0-06	0x7006	Output torque	0.0%	0.0	%	Unchangeable
U0-07	0x7007	DI input state	0	0	-	Unchangeable
U0-08	0x7008	RO/DO output state	0	0	-	Unchangeable
U0-09	0x7009	AI1 voltage	0.00 V	0.00	V	Unchangeable
U0-10	0x700A	AI2 voltage	0.00 V	0.00	V	Unchangeable
U0-11	0x700B	AI3 voltage	0.00 V	0.00	V	Unchangeable
U0-12	0x700C	Counting value	0	0	-	Unchangeable
U0-13	0x700D	Length value	0	0	-	Unchangeable
U0-14	0x700E	Load speed display	0	0	-	Unchangeable
U0-15	0x700F	PID reference	0	0	-	Unchangeable
U0-16	0x7010	PID feedback	0	0	-	Unchangeable
U0-17	0x7011	PLC stage	0	0	-	Unchangeable
U0-19	0x7013	Feedback speed	0.00 Hz	0.00	Hz	Unchangeable
U0-20	0x7014	Remaining running time	0.0 min	0.0	min	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U0-21	0x7015	AI1 gain and voltage after offset	0.000 V	0.000	V	Unchangeable
U0-22	0x7016	AI2 gain and voltage after offset	0.000 V	0.000	V	Unchangeable
U0-23	0x7017	AI3 gain and voltage after offset	0.000 V	0.000	V	Unchangeable
U0-24	0x7018	Linear speed	0 m/min	0	m/min	Unchangeable
U0-25	0x7019	Current power-on time	0 min	0	min	Unchangeable
U0-26	0x701A	Current operating time	0.0 min	0.0	min	Unchangeable
U0-28	0x701C	Communication setpoint	0.00%	0.00	%	Unchangeable
U0-30	0x701E	Display of main frequency X	0.00 Hz	0.00	Hz	Unchangeable
U0-31	0x701F	Display of auxiliary frequency Y	0.00 Hz	0.00	Hz	Unchangeable
U0-33	0x7021	Synchronous motor rotor position	0.0°	0.0	°	Unchangeable
U0-35	0x7023	Target torque	0.0%	0.0	%	Unchangeable
U0-37	0x7025	Power factor angle	0.0°	0.0	°	Unchangeable
U0-39	0x7027	Target voltage for V/f separation	0 V	0	V	Unchangeable
U0-40	0x7028	Output voltage for V/f separation	0 V	0	V	Unchangeable
U0-41	0x7029	DI input state display	0	0	-	Unchangeable
U0-42	0x702A	DO/RO output state display	0	0	-	Unchangeable
U0-43	0x702B	DI function state display 1	0	0	-	Unchangeable
U0-44	0x702C	DI function state display 2	0	0	-	Unchangeable
U0-45	0x702D	Fault code	0	0	-	Unchangeable
U0-46	0x702E	Fault subcode	0	0	-	Unchangeable
U0-47	0x702F	Drive unit temperature	0°C	0	°C	Unchangeable
U0-48	0x7030	Voltage received by PTC channel 1	0.000 V	0.000	V	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U0-49	0x7031	Voltage received by PTC channel 2	0.000 V	0.000	V	Unchangeable
U0-50	0x7032	Voltage received by PTC channel 3	0.000 V	0.000	V	Unchangeable
U0-51	0x7033	PTC1 temperature	0°C	0	°C	Unchangeable
U0-52	0x7034	PTC2 temperature	0°C	0	°C	Unchangeable
U0-53	0x7035	PTC3 temperature	0°C	0	°C	Unchangeable
U0-54	0x7036	Motor speed	0 RPM	0	RPM	Unchangeable
U0-55	0x7037	Automatically-allocated station number	0	0	-	Unchangeable
U0-56	0x7038	Identified axis type	0	0	-	Unchangeable
U0-61	0x703D	AC drive operation status word 1	0	0	-	Unchangeable
U0-64	0x7040	Special protocol status word	0	0	-	Unchangeable
U0-68	0x7044	AC drive operation status word 2	0	0	-	Unchangeable
U0-78	0x704E	AC drive rated current	0.0 A	0.0	A	Unchangeable
U0-79	0x704F	AC drive power	0.0 kW	0.0	kW	Unchangeable
U0-81	0x7051	Local LED state	0	0	-	Unchangeable
U0-82	0x7052	Three-phase output phase A current	0.00 A	0.00	A	Unchangeable
U0-83	0x7053	Three-phase output phase B current	0.00 A	0.00	A	Unchangeable
U0-84	0x7054	Three-phase output phase C current	0.00 A	0.00	A	Unchangeable
U0-88	0x7058	Warning code	0	0	-	Unchangeable
U0-89	0x7059	Warning subcode	0	0	-	Unchangeable
U0-90	0x705A	Percentage of preset fan speed	0	0	-	Unchangeable
U0-91	0x705B	PTC1 mode	0	0	-	Unchangeable
U0-92	0x705C	PTC2 mode	0	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U0-93	0x705D	PTC3 mode	0	0	-	Unchangeable
U0-95	0x705F	STO initialization flag	0	0	-	Unchangeable
U0-96	0x7060	STO status word monitoring	0	0	-	Unchangeable
U0-97	0x7061	STO model	0	0	-	Unchangeable
U0-98	0x7062	STO AD sampling value	0	0	-	Unchangeable
U0-99	0x7063	STO internal execution flag	0	0	-	Unchangeable
U3-16	0x7310	Frequency set by communication	0 to 65535	0	-	Unchangeable
U3-17	0x7311	Communication control command	0 to 65535	0	-	Unchangeable
U3-18	0x7312	Communication control DO/RO	0 to 65535	0	-	Unchangeable
U4-00	0x7400	Supported mode (high-order bits of 6502h)	0 to 65535	0	-	Unchangeable
U4-01	0x7401	Supported mode (low-order bits of 6502h)	0 to 65535	0	-	Unchangeable
U4-02	0x7402	Fault code (603Fh)	0 to 65535	0	-	Unchangeable
U4-03	0x7403	Control word (6040h)	0 to 65535	0	-	Unchangeable
U4-04	0x7404	Status word (6041h)	0 to 65535	0	-	Unchangeable
U4-05	0x7405	Target speed (6042h)	-32767 to 32767	0	-	Unchangeable
U4-14	0x740E	Acceleration time (6048h-2)	0 to 65535	0	-	Unchangeable
U4-16	0x7410	Deceleration setting (low-order bits of 6049h-1)	0 to 65535	0	-	Unchangeable
U4-17	0x7411	Deceleration time (6049h-2)	0 to 65535	0	-	Unchangeable
U4-18	0x7412	Emergency stop mode (605Ah)	-32767 to 32767	0	-	Unchangeable
U4-22	0x7416	Stop mode upon fault (605Eh)	-32767 to 32767	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U5-00	0x7500	Power supply unit - DI hardware resource	0 to 65535	0	-	Unchangeable
U5-01	0x7501	Power supply unit - DO/RO hardware resource	0 to 65535	0	-	Unchangeable
U5-02	0x7502	Power supply unit - AI hardware resource	0 to 65535	0	-	Unchangeable
U5-04	0x7504	Expansion card 1 - DI hardware resource	0 to 65535	0	-	Unchangeable
U5-05	0x7505	Expansion card 1 - DO/RO hardware resource	0 to 65535	0	-	Unchangeable
U5-06	0x7506	Expansion card 1 - AI hardware resource	0 to 65535	0	-	Unchangeable
U5-08	0x7508	Expansion card 2 - DI hardware resource	0 to 65535	0	-	Unchangeable
U5-09	0x7509	Expansion card 2 - DO/RO hardware resource	0 to 65535	0	-	Unchangeable
U5-10	0x750A	Expansion card 2 - AI hardware resource	0 to 65535	0	-	Unchangeable
U5-12	0x750C	Expansion card 3 - DI hardware resource	0 to 65535	0	-	Unchangeable
U5-13	0x750D	Expansion card 3 - DO/RO hardware resource	0 to 65535	0	-	Unchangeable
U5-14	0x750E	Expansion card 3 - AI hardware resource	0 to 65535	0	-	Unchangeable
U5-20	0x7514	Power supply unit - DI mapping relation	0 to 65535	0	-	Unchangeable
U5-21	0x7515	Power supply unit - DO/RO mapping relation	0 to 65535	0	-	Unchangeable
U5-22	0x7516	Power supply unit - AI mapping relation	0 to 65535	0	-	Unchangeable
U5-24	0x7518	Expansion card 1 - DI mapping relation	0 to 65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U5-25	0x7519	Expansion card 1 - DO/RO mapping relation	0 to 65535	0	-	Unchangeable
U5-26	0x751A	Expansion card 1 - AI mapping relation	0 to 65535	0	-	Unchangeable
U5-28	0x751C	Expansion card 2 - DI mapping relation	0 to 65535	0	-	Unchangeable
U5-29	0x751D	Expansion card 2 - DO/RO mapping relation	0 to 65535	0	-	Unchangeable
U5-30	0x751E	Expansion card 2 - AI mapping relation	0 to 65535	0	-	Unchangeable
U5-32	0x7520	Expansion card 3 - DI mapping relation	0 to 65535	0	-	Unchangeable
U5-33	0x7521	Expansion card 3 - DO/RO mapping relation	0 to 65535	0	-	Unchangeable
U5-34	0x7522	Expansion card 3 - AI mapping relation	0 to 65535	0	-	Unchangeable
U5-40	0x7528	Power supply unit - DI data	0 to 65535	0	-	Unchangeable
U5-41	0x7529	Expansion card 1 - DI data	0 to 65535	0	-	Unchangeable
U5-42	0x752A	Expansion card 2 - DI data	0 to 65535	0	-	Unchangeable
U5-43	0x752B	Expansion card 3 - DI data	0 to 65535	0	-	Unchangeable
U5-45	0x752D	Drive unit DO/RO data	0 to 65535	0	-	Unchangeable
U5-50	0x7532	Power supply unit - AI1 function	0 to 65535	0	-	Unchangeable
U5-51	0x7533	Power supply unit - AI2 function	0 to 65535	0	-	Unchangeable
U5-52	0x7534	Expansion card 1 - AI1 function	0 to 65535	0	-	Unchangeable
U5-53	0x7535	Expansion card 1 - AI2 function	0 to 65535	0	-	Unchangeable
U5-54	0x7536	Expansion card 2 - AI1 function	0 to 65535	0	-	Unchangeable
U5-55	0x7537	Expansion card 2 - AI2 function	0 to 65535	0	-	Unchangeable
U5-56	0x7538	Expansion card 3 - AI1 function	0 to 65535	0	-	Unchangeable
U5-57	0x7539	Expansion card 3 - AI2 function	0 to 65535	0	-	Unchangeable

Parameter Code	Communication Address	Parameter Name	Setpoint	Default	Unit	Change Mode
U5-58	0x753A	Reserved	0 to 65535	0	-	Unchangeable
U5-59	0x753B	Reserved	0 to 65535	0	-	Unchangeable
U5-60	0x753C	Power supply unit - AI1 voltage	-32767 to 32767	0	-	Unchangeable
U5-61	0x753D	Power supply unit - AI2 voltage	-32767 to 32767	0	-	Unchangeable
U5-62	0x753E	Expansion card 1 - AI1 voltage	-32767 to 32767	0	-	Unchangeable
U5-63	0x753F	Expansion card 1 - AI2 voltage	-32767 to 32767	0	-	Unchangeable
U5-64	0x7540	Expansion card 2 - AI1 voltage	-32767 to 32767	0	-	Unchangeable
U5-65	0x7541	Expansion card 2 - AI2 voltage	-32767 to 32767	0	-	Unchangeable
U5-66	0x7542	Expansion card 3 - AI1 voltage	-32767 to 32767	0	-	Unchangeable
U5-67	0x7543	Expansion card 3 - AI2 voltage	-32767 to 32767	0	-	Unchangeable

4.7 List of Fault Codes

4.7.1 List of Fault Codes for the Power Supply Unit

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
E12.01/ A12.01	Input voltage phase loss	0: Cancel 1: Fault 2: Warning	2: Warning	Yes	Input three-phase loss occurs on the power grid.	Check the three-phase power supply. Make sure that it is normal. Check the input cables for breakage. Make sure that they are normal. Check the input terminals. Make sure that they are properly connected. Ensure that the hardware voltage detection circuit is normal.
E12.04/ A12.04	High input three-phase voltage	0: Cancel 1: Fault 2: Warning	2: Warning	Yes	The power grid input voltage exceeds the rated value.	Check whether the input voltage is within the rated value. Three-phase 380 V models: 576 V Single-phase 220 V models: 288 V

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
E14.00/ A14.00	Drive overtemperature	1: Fault	1: Fault	Yes	The ambient temperature is too high.	Lower down the ambient temperature.
					The ventilation duct is blocked.	Clean the ventilation duct.
					The fan is damaged.	Replace the damaged fan.
					The thermistor is damaged.	Contact Inovance for technical support.
					The module is damaged.	Contact Inovance for technical support.
E16.01	Modbus communication timeout	1: Fault	1: Fault	Yes	Modbus communication times out.	Ensure that the RS-485 cable is connected properly. Ensure that the RS-485 cable is free from interference. Ensure that the value of Fd-04 for the power supply unit is greater than the PLC communication cycle.
E16.02	Protective cover not installed for three-way terminal	1: Fault	1: Fault	Yes	The protective cover of the three-way terminal is not installed.	Install the protective cover of the three-way terminal for the last drive unit.
E16.03	Station number allocation failure	1: Fault	1: Fault	Yes	Station number allocation fails.	Power off and then power on all equipment. If the fault persists, repeat the operation.
E16.04	Continuous frame loss of the expansion card	1: Fault	1: Fault	Yes	The number of frames that the I/O expansion card has lost continuously exceeds the set value.	Ensure that the expansion cards are connected properly. Check whether the value of F9-67 is too small.
E16.11	CANopen communication timeout	1: Fault	1: Fault	Yes	CANopen communication times out.	Ensure that the CAN communication cable is connected properly. Check parameters FD-15 to FD-17 to confirm the interference and eliminate the interference. Ensure that heartbeat messages are transmitted and the device is normal.

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
E16.12	Inconsistence between PDO mapping configured by CANopen and actual communication mapping	1: Fault	1: Fault	Yes	The PDO mapping configured by CANopen is inconsistent with the actual communication mapping.	Check whether the PDO mapping of group FE/AF is consistent with the PDO and ensure that the PDO is configured correctly. Check whether the mapping relationship configured on the master station conforms to the EDS file specification of the AC drive.
E16.13	Timeout during receiving of interactive data by drive unit	1: Fault	1: Fault	Yes	An abnormality occurs when the drive unit receives interactive data from the power supply unit.	Check whether the power supply unit works normally. If the power supply unit is faulty, contact the technical support personnel.
E16.14	Abnormality during receiving of interactive data by drive unit	1: Fault	1: Fault	Yes	An abnormality occurs when the drive unit receives interactive data from the power supply unit.	The power supply unit is faulty. Contact the technical support personnel.
E16.21	CANlink heartbeat message timeout	1: Fault	1: Fault	Yes	The CANlink heartbeat message times out.	Ensure that the CAN communication cable is connected properly. Check parameters FD-15 to FD-17 to confirm the interference and eliminate the interference. Ensure that heartbeat messages are transmitted and the device is normal.
E16.22	CANlink station number conflict	1: Fault	1: Fault	Yes	CANlink station numbers conflict.	Change the same CANlink station number to different ones by using FD-13.
E16.52	EtherCAT communication card EEPROM fault	1: Fault	1: Fault	Yes	The EEPROM of the EtherCAT communication card is faulty.	If the programming or upgrading of the communication card fails, program the communication card again. If this fault occurs during normal use, replace the communication card.
E16.53	Slave control chip of the EtherCAT communication card faulty	1: Fault	1: Fault	Yes	The slave control chip of the EtherCAT communication card is faulty.	If the programming or upgrading of the communication card fails, program the communication card again. If this fault occurs during normal use, replace the communication card.

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
E16.55	The EtherCAT system parameters are incorrect.	1: Fault	1: Fault	Yes	Incorrect EtherCAT parameter settings	When the master station becomes wrong, check whether it sends synchronous frames (FD-78). If not, make sure that TPDO and RPDO have been configured for the master PDO. If the master PDO is configured correctly, check the network port status (FD-72 to FD-77) and make sure that the communication cable is connected properly.
E16.71	Master station offline during operation of the communication card	1: Fault	1: Fault	Yes	The master station goes offline during operation of the communication card.	Check and ensure that the connection between the communication card and PLC is normal.
E16.72	Internal slave station offline during operation of the communication card	1: Fault	1: Fault	Yes	The internal slave station goes offline during operation of communication card.	Check and ensure that the connection between the communication card and power supply unit is normal.
E16.74	Communication card configuration fault	1: Fault	1: Fault	Yes	The communication card configuration is faulty.	Check whether the configured slave station exists, and check that start with station lost (FD-50) is disabled.
E16.75	Configurations of drive unit mappings on the communication card faulty	1: Fault	1: Fault	Yes	Configurations of the drive unit mapping on the communication card are faulty.	Check and ensure that the number of pieces of process data configured for the drive unit is consistent with the number of mapping relations.
E16.76	Configurations of power supply unit mappings on the communication card faulty	1: Fault	1: Fault	Yes	Configurations of the power supply unit mapping on the communication card are faulty.	Check and ensure that the number of pieces of process data configured for the power supply unit is consistent with the number of mapping relations.

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
E16.81	Communication card connection failure	1: Fault	1: Fault	Yes	The communication card connection times out.	Check and ensure that the communication link is normal and the master station is running properly.
E16.82	Ethernet hardware error	1: Fault	1: Fault	Yes	An error occurs on the Ethernet hardware.	Contact the agent or Inovance.
E16.83	MAC address unconfigured	1: Fault	1: Fault	Yes	The MAC address is not programmed.	Contact the agent or Inovance.
E16.84	IP address conflict	1: Fault	1: Fault	Yes	The IP addresses conflict.	Ensure that the IP address of the AC drive is different from that of other devices.
E21.01	Parameter written to the EEPROM timeout	1: Fault	1: Fault	Yes	An error occurs during parameter writing.	The EEPROM chip is damaged. Contact the manufacturer to replace the main control board.
E21.02	Parameter read from the EEPROM timeout	1: Fault	1: Fault	Yes	An error occurs during parameter reading.	The EEPROM chip is damaged. Contact the manufacturer to replace the main control board.
E21.03	Operation on the EEPROM timeout	1: Fault	1: Fault	Yes	An error occurs during parameter reading and writing.	The EEPROM chip is damaged. Contact the manufacturer to replace the main control board.
E21.04	EEPROM buffer overflow	1: Fault	1: Fault	Yes	The number of parameters to be written exceeds the limit.	Reduce the number of parameters to be written in a short period of time.
E61.01	Braking transistor shoot-through	0: Cancel 1: Fault	1: Fault	Yes	The braking transistor is shoot-through at stop.	Check whether the resistance and power of the braking resistor are too small. Check whether the braking resistor is short-circuited.
E61.02	Braking transistor open circuit	0: Cancel 1: Fault	1: Fault	Yes	The braking transistor is open-circuited.	Check whether the braking resistor is damaged. Check whether the braking resistor is short-circuited.
E61.03	Braking transistor shoot-through during running	1: Fault	1: Fault	Yes	The braking transistor is shoot-through during running.	Check whether the resistance and power of the braking resistor are too small. Check whether the braking resistor is short-circuited.
E80.00/ A80.00	Fan running abnormal	0: Cancel 1: Fault 2: Warning	1: Fault	Yes	The fan is running abnormally.	Check whether the fan on the power supply unit is connected correctly. Check whether the fan on the power supply unit is blocked.

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
A98.01	Continuous frame loss on drive unit	2: Warning	2: Warning	Yes	The power supply unit detects that the drive unit has lost more frames continuously than the value set by A0-01 of the power supply unit.	Check that the terminals of the power supply unit and drive unit bases are connected properly, and eliminate the interference.
A98.02	Continuous frame loss on expansion card	2: Warning	2: Warning	Yes	The power supply unit detects that the I/O expansion card has lost more frames continuously than the value set by A0-02 of the power supply unit.	Check that the power supply unit and I/O expansion card are connected properly, and eliminate the interference.
A98.03	Continuous frame loss on drive unit and expansion card	2: Warning	2: Warning	Yes	The power supply unit detects that the drive unit and the I/O expansion card have lost more frames continuously than the set value.	Check the wiring and eliminate the interference.
A99.01	Selected DI hardware resource not exist	2: Warning	2: Warning	Yes	The selected DI hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the DI hardware resource is selected for the power supply unit and ensure that the selected DI hardware resource exists.
A99.02	Selected DO/RO hardware resource not exist	2: Warning	2: Warning	Yes	The selected DO/RO hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the DO/RO hardware resource is selected for the power supply unit and ensure that the selected DO/RO hardware resource exists.
A99.03	Selected AI hardware resource not exist	2: Warning	2: Warning	Yes	The selected AI hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the AI hardware resource is selected for the power supply unit and ensure that the selected AI hardware resource exists.

Fault code	Fault Name	Fault Level Range	Default Fault Level	Reset table	Cause	Solution
A99.04	Selected DI and DO/RO hardware resources not exist	2: Warning	2: Warning	Yes	The selected DI and DO/RO hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the power supply unit according to the solutions of A99.01 and A99.02.
A99.05	Selected DI and AI hardware resources not exist	2: Warning	2: Warning	Yes	The selected DI and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the power supply unit according to the solutions of A99.01 and A99.03.
A99.06	Selected DO/RO and AI hardware resources not exist	2: Warning	2: Warning	Yes	The selected DO/RO and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the power supply unit according to the solutions of A99.02 and A99.03.
A99.07	Selected DI, DO/RO, and AI hardware resources not exist	2: Warning	2: Warning	Yes	The selected DI, DO/RO, and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the power supply unit according to the solutions of A99.01, A99.02, and A99.03.

4.7.2 List of Fault Codes for the Drive Unit

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E01.06	STO type recognition failure	0: Coast to stop	0: Coast to stop	Yes	The driver board is abnormal.	Contact the agent or Inovance.
E01.07	AC drive axis type recognition failure	0: Coast to stop	0: Coast to stop	Yes	The driver board is abnormal.	Contact the agent or Inovance.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E02.04	Output overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and interruption contactor and make sure that they are not short-circuited.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The acceleration time is too short under abrupt acceleration conditions.	Increase the acceleration time (F0-17).
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 160%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The manual torque boost value or V/f curve is inappropriate.	Adjust the manual torque boost value or V/f curve.
					The motor is started while rotating.	Enable the flying start function or start the motor after it stops.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device may be faulty. Contact the manufacturer to replace them.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E02.05	Bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and interruption contactor and make sure that they are not short-circuited.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The acceleration time is too short under abrupt acceleration conditions.	Increase the acceleration time (F0-17).
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 160%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The manual torque boost value or V/f curve is inappropriate.	Adjust the manual torque boost value or V/f curve.
					The motor is started while rotating.	Enable the flying start function or start the motor after it stops.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device may be faulty. Contact the manufacturer to replace them.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E02.06	Output and bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and interruption contactor and make sure that they are not short-circuited.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The acceleration time is too short under abrupt acceleration conditions.	Increase the acceleration time (F0-17).
					The overcurrent stall suppression parameter is set improperly.	<p>Ensure that the overcurrent stall suppression function (F3-19) is enabled.</p> <p>The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 160%.</p> <p>The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.</p>
					The manual torque boost value or V/f curve is inappropriate.	Adjust the manual torque boost value or V/f curve.
					The motor is started while rotating.	Enable the flying start function or start the motor after it stops.
					The AC drive suffers external interference.	<p>Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log.</p> <p>If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault.</p> <p>If no external interference source is found, the driver board or Hall device may be faulty. Contact the manufacturer to replace them.</p>

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E03.04	Output overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The deceleration time is too short under abrupt deceleration conditions.	Increase the deceleration time (F0-18).
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The braking unit and braking resistor are not installed.	Install the braking unit and braking resistor.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device may be faulty. Contact the manufacturer to replace them.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E03.05	Bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The deceleration time is too short under abrupt deceleration conditions.	Increase the deceleration time (F0-18).
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The braking unit and braking resistor are not installed.	Install the braking unit and braking resistor.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device may be faulty. Contact the manufacturer to replace them.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E03.06	Output and bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The deceleration time is too short under abrupt deceleration conditions.	Increase the deceleration time (F0-18).
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The braking unit and braking resistor are not installed.	Install the braking unit and braking resistor.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device might be damaged. Contact Inovance for replacement.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E04.04	Output overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The power rating of the AC drive is too low.	In the stable operation state, if the operating current exceeds the rated current of the motor or the rated output current of the drive, replace with a drive with a higher power rating.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device might be damaged. Contact Inovance for replacement.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E04.05	Bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The overcurrent stall suppression parameter is set improperly.	Ensure that the overcurrent stall suppression function (F3-19) is enabled. The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%. The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.
					The power rating of the AC drive is too low.	In the stable operation state, if the operating current exceeds the rated current of the motor or the rated output current of the drive, replace with a drive with a higher power rating.
					The AC drive suffers external interference.	Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log. If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault. If no external interference source is found, the driver board or Hall device might be damaged. Contact Inovance for replacement.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E04.06	Output and bus overcurrent	0: Coast to stop	0: Coast to stop	Yes	The output circuit of the AC drive is grounded or short-circuited.	Check the motor and make sure that the motor circuit is not short-circuited or disconnected.
					The control mode is FVC or SVC but parameter auto-tuning is not performed.	Set the motor parameters according to the motor nameplate and perform motor auto-tuning.
					The overcurrent stall suppression parameter is set improperly.	<p>Ensure that the overcurrent stall suppression function (F3-19) is enabled.</p> <p>The set value of F3-18 (Overcurrent stall action current) is too large. Change it to a value between 120% and 150%.</p> <p>The set value of F3-20 (Overcurrent stall suppression gain) is too small. Change it to a value between 20 and 40.</p>
					The power rating of the AC drive is too low.	In the stable operation state, if the operating current exceeds the rated current of the motor or the rated output current of the drive, replace with a drive with a higher power rating.
					The AC drive suffers external interference.	<p>Check if the current upon the fault reaches the overcurrent threshold (F3-18) in the fault log.</p> <p>If not, the fault may be caused by external interference. In this case, remove the external interference to clear the fault.</p> <p>If no external interference source is found, the driver board or Hall device might be damaged. Contact Inovance for replacement.</p>

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E05.00	Overvoltage during acceleration	0: Coast to stop	0: Coast to stop	Yes	The input grid voltage is too high.	Adjust the voltage to the normal range.
					External force drives the motor during acceleration.	Remove the external force or install a braking resistor. The maximum rise frequency during overvoltage stall suppression (F3-26) is too low. Adjust it to a value between 5 Hz and 15 Hz when external force is applied.
					The overvoltage stall suppression parameters are set improperly.	Ensure that the overvoltage stall suppression function (F3-23) is enabled. The value of F3-22 (Overvoltage stall action voltage) is too large. Change it to a value ranging from 770 V and 700 V. The value of F3-24 (Overvoltage stall suppression gain) is too small. Change it to a value ranging from 30 and 50.
					The braking unit and braking resistor are not installed.	Install the braking unit and braking resistor.
					The acceleration time is too short.	Increase the acceleration time.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E06.00	Overvoltage during deceleration	0: Coast to stop	0: Coast to stop	Yes	The overvoltage stall suppression parameters are set improperly.	Ensure that the overvoltage stall suppression function (F3-23) is enabled. The value of F3-22 (Overvoltage stall action voltage) is too large. Change it to a value ranging from 770 V and 700 V. The value of F3-24 (Overvoltage stall suppression gain) is too small. Change it to a value ranging from 30 and 50.
					External force drives the motor during deceleration.	Remove the external force or install a braking resistor. The maximum rise frequency during overvoltage stall suppression (F3-26) is too low. Adjust it to a value between 5 Hz and 15 Hz when external force is applied.
					The deceleration time is too short.	Increase the deceleration time.
					The braking unit and braking resistor are not installed.	Install the braking unit and braking resistor.
E07.00	Overvoltage during operation at constant speed	0: Coast to stop	0: Coast to stop	Yes	The overvoltage stall suppression parameters are set improperly.	Ensure that the overvoltage stall suppression function (F3-23) is enabled. The value of F3-22 (Overvoltage stall action voltage) is too large. Change it to a value ranging from 770 V and 700 V. The value of F3-24 (Overvoltage stall suppression gain) is too small. Change it to a value ranging from 30 and 50.
					External force drives the motor during running.	Remove the external force or install a braking resistor. The maximum rise frequency during overvoltage stall suppression (F3-26) is too low. Adjust it to a value between 5 Hz and 15 Hz when external force is applied.
E07.01	Overvoltage for single-phase models	0: Coast to stop	0: Coast to stop	Yes	The bus voltage of single-phase models exceeds 410 V.	Adjust the input voltage of single-phase models to a value lower than 290 V.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E09.00	Undervoltage	0: Coast to stop	0: Coast to stop	Yes	An instantaneous power failure occurs.	Enable the power dip ride-through function.
					The input voltage of the AC drive is beyond the specified range.	Adjust the voltage to a value within the normal range.
					The bus voltage is abnormal.	Contact Invoance for technical support.
					The power supply unit, the driver board of the drive unit, or the control board of the drive unit is faulty.	Contact Invoance for technical support.
E10.00	Drive overload	0: Coast to stop	0: Coast to stop	Yes	F9-01 (Motor overload protection gain) is set improperly.	Set F9-01 (Motor overload protection gain) properly. The motor overload time is prolonged if you increase the value of F9-01.
					The load is too heavy or the motor rotor is locked.	Reduce the load or check motor and mechanical conditions.
E11.00/ A11.00	Motor overload	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	F9-01 (Motor overload protection gain) is set improperly.	Set F9-01 (Motor overload protection gain) properly. The motor overload time is prolonged if you increase the value of F9-01.
					The load is too heavy or the motor rotor is locked.	Reduce the load or check motor and mechanical conditions.
E13.00/ A13.00	Output phase loss	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	The motor is faulty.	Check whether open circuit occurs on the motor.
					The cable connecting the drive and the motor is faulty.	Eliminate the external fault.
					The three-phase outputs of the AC drive are unbalanced during motor running.	Check whether the motor three-phase winding is normal and eliminate the fault.
					The driver board or the IGBT module is abnormal.	Contact Invoance for technical support.
E15.01/ A15.01	External device fault (NO)	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	An external fault signal is input through the multi-functional DI (NO).	Eliminate external faults and ensure that restart (F8-21) is allowed under the mechanical condition for reset.
					An external fault signal is input through the virtual I/O (NO).	Confirm that the virtual I/O parameters in group A1 are set correctly and reset the device.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E15.02/ A15.02	External device fault (NC)	0: Coast to stop	1: Decelerate to stop	Yes	An external fault signal is input through the multi-functional DI (NC).	Eliminate external faults and ensure that restart (F8-21) is allowed under the mechanical condition for reset.
		1: Decelerate to stop 4: Warning 5: Cancel			An external fault signal is input through the virtual I/O terminal (NC).	Confirm that the virtual I/O parameters in group A1 are set correctly and reset the device.
E16.01/ A16.01	Modbus communication timeout	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	Modbus communication times out.	Check whether the RS-485 communication cable is correctly connected. Check whether the value of Fd-04 and the PLC communication cycle are proper.
A16.02	Protective cover not installed for the three-way terminal	4: Warning	4: Warning	Yes	The protective cover of the three-way terminal is not installed.	Install the protective cover of the three-way terminal for the last drive unit.
E16.04/ A16.04	Continuous frame loss of the expansion card	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	The number of frames that the I/O expansion card has lost continuously exceeds the set value.	Ensure that the expansion cards are connected properly. Check whether the value of F9-67 is too small.
E16.11/ A16.11	CANopen communication timeout	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	CANopen communication times out.	Ensure that the CAN communication cable is connected properly. Check parameters FD-15 to FD-17 to confirm the interference and eliminate the interference. Ensure that heartbeat messages are transmitted and the device is normal.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E16.12/ A16.12	Inconsistence between PDO mapping configured by CANopen and actual communication mapping	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	The PDO mapping configured by CANopen is inconsistent with the actual communication mapping.	Check whether the PDO mapping of group FE/AF is consistent with the PDO and ensure that the PDO is configured correctly. Check whether the mapping relationship configured on the master station conforms to the EDS file specification of the AC drive.
E16.21/ A16.21	CANlink heartbeat message timeout	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	The CANlink heartbeat message times out.	Ensure that the CAN communication cable is connected properly. Check parameters FD-15 to FD-17 to confirm the interference and eliminate the interference. Ensure that heartbeat messages are transmitted and the device is normal.
E16.22/ A16.22	CANlink station number conflict	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	CANlink station numbers conflict.	Change the same CANlink station number to different ones by using FD-13.
E18.01	Current detection circuit fault	0: Coast to stop	0: Coast to stop	Yes	The current sampling of the drive is abnormal.	Check whether the main circuit is powered on. Check whether the Hall sensor or current sampling circuit is damaged. If yes, contact the agent or Inovance for technical support.
E19.02/ A19.02	Error in auto-tuning of the magnetic pole position angle of the synchronous motor	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the magnetic pole position angle of the synchronous motor.	Check whether the motor is connected or output phase loss occurs.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E19.06/ A19.06	Stator resistance quick auto-tuning fault	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the stator resistance.	Check whether the motor is connected. Ensure that rated motor current (F1-03) is set according to the motor nameplate.
E19.07/ A19.07	Stator resistance auto-tuning fault	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	Error in auto-tuning of the stator resistance	Check whether the motor is connected. Ensure that rated motor current (F1-03) is set according to the motor nameplate.
E19.08/ A19.08	Error in ending stator resistance auto-tuning	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the stator resistance.	Check whether the motor is connected. Ensure that rated motor current (F1-03) is set according to the motor nameplate.
E19.09/ A19.09	Error in auto-tuning of the transient leakage inductance of the asynchronous motor	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the transient leakage inductance of the asynchronous motor.	Check whether the motor is connected or output phase loss occurs. Ensure that the motor is connected or the load is connected to the motor.
E19.10/ A19.10	Error in auto-tuning of the leakage inductance of the asynchronous motor	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	Error in auto-tuning of the transient leakage inductance for the asynchronous motor	Check whether the motor is connected or output phase loss occurs. Ensure that the motor is connected or the load is connected to the motor.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E19.23/ A19.23	Error in auto-tuning of the magnetic pole position angle of the synchronous motor (pulse-by-pulse current limit)	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the magnetic pole position of the synchronous motor.	Set F1-03 (Rated motor current) according to the motor nameplate. Decrease the value of F2-29 (Initial position angle detection current of synchronous motor). Check whether the motor is rotating when the AC drive is started. Check whether the value of F1-17 (Motor D axis inductance Ld) is smaller than 0.1 mH.
E19.24/ A19.24	Error in auto-tuning of the transient leakage inductance of the asynchronous motor (pulse-by-pulse current limit)	0: Coast to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	An error occurs during auto-tuning of the transient leakage inductance of the asynchronous motor.	The AC drive power rating is too low. Select an AC drive with a proper power rating according to the motor power.
E21.01	Parameter written to the EEPROM timeout	0: Coast to stop	0: Coast to stop	Yes	An error occurs during parameter writing.	The EEPROM chip is damaged. Contact the manufacturer to replace the control board.
E21.02	Parameter read from the EEPROM timeout	0: Coast to stop	0: Coast to stop	Yes	An error occurs during parameter reading.	The EEPROM chip is damaged. Contact the manufacturer to replace the control board.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E21.03	Operation on the EEPROM timeout	0: Coast to stop	0: Coast to stop	Yes	An error occurs during parameter reading and writing.	The EEPROM chip is damaged. Contact the manufacturer to replace the control board.
E21.04	EEPROM buffer overflow	0: Coast to stop	0: Coast to stop	Yes	The number of parameters to be written exceeds the limit.	Reduce the number of parameters to be written in a short period of time.
E22.00	Stator resistance auto-tuning result warning	0: Coast to stop	0: Coast to stop	Yes	The tuned stator resistance exceeds the permissible range.	The rated motor voltage and current are set incorrectly. Set F1-02 (Rated motor voltage) and F1-03 (Rated motor current) correctly according to the motor nameplate. Check that auto-tuning is performed after the motor stops.
E22.01	Rotor resistance auto-tuning result warning	0: Coast to stop	0: Coast to stop	Yes	The tuned rotor resistance of the asynchronous motor exceeds the permissible range.	The rated motor voltage and current are set incorrectly. Set F1-02 (Rated motor voltage) and F1-03 (Rated motor current) correctly according to the motor nameplate. Check that auto-tuning is performed after the motor stops.
E22.02	No-load current and mutual inductance auto-tuning result warning	0: Coast to stop	0: Coast to stop	Yes	The tuned no-load current and mutual inductance of the asynchronous motor exceed the permissible range. If this fault is reported, the AC drive calculates the mutual inductance and no-load current based on known motor parameters. The calculated values may be different from optimal values.	Set the motor parameters in group F1 correctly according to the motor nameplate. Before auto-tuning, check that the motor is not connected to any load.
E22.03	Back EMF auto-tuning result warning	0: Coast to stop	0: Coast to stop	Yes	The tuned back EMF of the synchronous motor exceeds the permissible range.	Set F1-02 (Rated motor current) according to the motor nameplate. Before auto-tuning, check that the motor is not connected to any load.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E23.01	Hardware overcurrent detected during short circuit to ground detection upon power-on	0: Coast to stop	0: Coast to stop	No	Hardware overcurrent is detected during short circuit to ground detection upon power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.
E23.02	Overvoltage detected during short circuit to ground detection upon power-on	0: Coast to stop	0: Coast to stop	No	Hardware overvoltage is detected during short circuit to ground detection upon power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.
E23.03	Overcurrent detected during short circuit to ground detection upon power-on (hardware overcurrent or current exceeds threshold)	0: Coast to stop	0: Coast to stop	No	A high risk is detected during short circuit to ground detection upon power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E23.04	Output overcurrent detected during short circuit to ground detection before power-on	0: Coast to stop	0: Coast to stop	No	Lower bridge overcurrent is detected during short circuit to ground detection before power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.
E23.05	Bus overcurrent detected during short circuit to ground detection before power-on	0: Coast to stop	0: Coast to stop	No	Bus overcurrent is detected during short circuit to ground detection before power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.
E23.06	Output overcurrent and bus overcurrent detected during short circuit to ground detection before power-on	0: Coast to stop	0: Coast to stop	No	Bus overcurrent and lower bridge overcurrent are detected during short circuit to ground detection before power-on.	Check whether the cable or motor is short-circuited to ground. Ensure that the motor wiring is correct.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E25.00	Power supply unit fault	1: Decelerate to stop 5: Cancel	1: Decelerate to stop	Yes	The power supply unit is faulty.	<p>1. Eliminate the power supply unit faults, such as input phase loss and overtemperature.</p> <p>2. Check the I/O terminal configuration of the power supply unit.</p> <p>Check the terminal configuration of the power supply unit. If any one of the following functions is selected, a fault is reported when there is no feedback signal:</p> <p>a: Running enable b: Incoming circuit breaker feedback c: Auxiliary circuit breaker feedback d: Residual current device feedback</p> <p>If any one of the following functions is selected, a fault is reported when the terminal is active:</p> <p>a: Drive unit running forbidden b: The drive unit coasts to stop. c: The drive unit stops according to the preset mode.</p>
E26.00/ A26.00	Cumulative operating time reached	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	The cumulative operating time reaches the set value.	Clear the record through parameter initialization.
E27.00/ A27.00	User-defined fault 1	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	The signal of user-defined fault 1 is input through the multi-functional DI. The signal of user-defined fault 1 is input through the virtual I/O terminal.	Reset the device.
E28.00/ A28.00	User-defined fault 2	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	The signal of user-defined fault 2 is input through the multi-functional DI. The signal of user-defined fault 2 is input through the virtual I/O terminal.	Reset the device.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E29.00/ A29.00	Cumulative power-on time reached	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	The cumulative power-on time reaches the set value.	Clear the record through parameter initialization.
E30.00/ A30.00	Output load loss	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	5: Cancel	Yes	The operation current of the drive is lower than the value of F9-68.	1. Check whether the load is disconnected. 2. Check whether the values of F9-64 and F9-65 meet actual operating conditions.
E31.00/ A31.00	PID feedback loss during running	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	1: Decelerate to stop	Yes	The PID feedback is lower than the setpoint of FA-26.	Check the PID feedback signal or set FA-26 properly.
E36.00	Torque limit timeout	0: Coast to stop	0: Coast to stop	Yes	F2-10 (Electric torque upper limit) is set improperly or the load is too heavy.	Set the upper limit of electric torque according to the site conditions, reduce the load, or select an AC drive with a higher power rating.
E37.00	Frequency direction fault	0: Coast to stop	0: Coast to stop	Yes	The load is too heavy.	1. Set B7-21 (Frequency abnormality detection cycle) properly according to the field conditions. 2. Reduce the load, or select an AC drive with a higher power rating.
E38.00	Frequency following fault	0: Coast to stop	0: Coast to stop	Yes	The load is too heavy.	1. Set B7-22 and B7-23 according to the site conditions. 2. Reduce the load, or select an AC drive with a higher power rating.
E42.00/ A42.00	Excessive speed deviation	0: Coast to stop 1: Decelerate to stop 4: Warning 5: Cancel	0: Coast to stop	Yes	Motor auto-tuning is not performed.	Perform motor auto-tuning.
					The speed deviation exceeds the threshold set by F9-73 and F9-74.	Set detection-related parameters properly according to the actual conditions.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E45.00/ A45.00	Motor overheat	0: Coast to stop	0: Coast to stop	Yes	The cable of the temperature sensor becomes loose.	Check the wiring of the temperature sensor.
		1: Decelerate to stop			Motor overtemperature occurs.	Increase the carrier frequency or take other measures to cool the motor.
		4: Warning 5: Cancel			The motor overheat protection threshold is too low.	Increase the motor overheat protection threshold (90°C to 100°C for regular motors).
E47.00	STO blocked	0: Coast to stop	0: Coast to stop	Yes	STO1 and STO2 signals are disconnected simultaneously.	Check the wiring of STO1 and STO2.
E47.02	STO triggering inconsistency fault	0: Coast to stop	0: Coast to stop	Yes	STO1 and STO2 signals are disconnected.	Check the wiring of STO1 and STO2.
E47.03	STO power supply fault	0: Coast to stop	0: Coast to stop	Yes	Undervoltage or overvoltage occurs on the STO circuit.	Contact Inovance for technical support.
E47.04	STO input subsystem fault	0: Coast to stop	0: Coast to stop	Yes	The STO circuit input subsystem is abnormal.	Contact Inovance for technical support.
E47.05	STO buffer chip fault	0: Coast to stop	0: Coast to stop	No	The STO output blocking chip is abnormal.	Contact Inovance for technical support.
E80.00	Fan fault	0: Coast to stop 1: Decelerate to stop 5: Cancel	0: Coast to stop	Yes	The fan is faulty.	Ensure that the fan on the drive unit is connected correctly. Ensure that the fan rotates freely.
E90.01	Brake release feedback fault	0: Coast to stop	0: Coast to stop	Yes	The brake release feedback signal is abnormal.	Ensure that the brake release signal and brake apply signal of the AC drive is correctly transmitted to the brake device. Manually release and apply the brake to confirm that the feedback signal is correctly transmitted to the AC drive. Replace the brake device.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
E90.02	Brake apply feedback fault	0: Coast to stop	0: Coast to stop	Yes	The brake apply feedback signal is abnormal.	Ensure that the brake release signal and brake apply signal of the AC drive is correctly transmitted to the brake device. Manually release and apply the brake to confirm that the feedback signal is correctly transmitted to the AC drive. Replace the brake device.
E90.03	Brake apply signal and brake release signal feedback fault	0: Coast to stop	0: Coast to stop	Yes	The brake apply and release feedback signal is abnormal.	Ensure that the brake release signal and brake apply signal of the AC drive is correctly transmitted to the brake device. Manually release and apply the brake to confirm that the feedback signal is correctly transmitted to the AC drive. Replace the brake device.
E91.00	Frequency reach timeout	0: Coast to stop	0: Coast to stop	Yes	The operating frequency has not reached the value of B7-01 or B7-02.	Ensure that the motoring torque upper limit defined by F2-10 is greater than the value of B7-03 and B7-04. Increase the brake release timeout detection time defined by B7-18.
E91.01	Torque/Current reach timeout	0: Coast to stop	0: Coast to stop	Yes	The output torque or output current does not reach the value of B7-03 and B7-04.	Ensure that the motoring torque upper limit defined by F2-10 is greater than the value of B7-03 and B7-04. Increase the brake release timeout detection time defined by B7-18.
E91.02	Frequency/Torque reach timeout	0: Coast to stop	0: Coast to stop	Yes	The operating frequency does not reach the value of B7-01 or B7-02, and the output torque or output current does not reach the value of B7-03 or B7-04.	Ensure that the motoring torque upper limit defined by F2-10 is greater than the value of B7-03 and B7-04. Increase the brake release timeout detection time defined by B7-18.
E93.00	Command direction conflict	1: Decelerate to stop	1: Decelerate to stop	Yes	The forward and reverse running commands of the DI are valid simultaneously.	Ensure that either the forward running command or the reverse running command of the DI is valid.
A99.01	Selected DI hardware resource not exist	4: Warning	4: Warning	Yes	The selected DI hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the DI hardware resource is selected for F4-00 to F4-15 of the drive unit and ensure that the selected DI hardware resource exists.

Fault Code	Fault Name	Fault Level Range	Default Fault Level	Resettable	Cause	Solution
A99.02	Selected DO/RO hardware resource not exist	4: Warning	4: Warning	Yes	The selected DO/RO hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the DO/RO hardware resource is selected for the drive unit and ensure that the selected DO/RO hardware resource exists.
A99.03	Selected AI hardware resource not exist	4: Warning	4: Warning	Yes	The selected AI hardware resource does not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check whether the AI hardware resource is selected for F4-25 to F4-29 of the drive unit and ensure that the selected AI hardware resource exists.
A99.04	Selected DI and DO/RO hardware resources not exist	4: Warning	4: Warning	Yes	The selected DI and DO/RO hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the drive unit according to the solutions to A99.01 and A99.02.
A99.05	Selected DI and AI hardware resources not exist	4: Warning	4: Warning	Yes	The selected DI and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the drive unit according to the solutions to A99.01 and A99.03.
A99.06	Selected DO/RO and AI hardware resources not exist	4: Warning	4: Warning	Yes	The selected DO/RO and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the drive unit according to the solutions to A99.01 and A99.03.
A99.07	Selected DI, DO/RO, and AI hardware resources not exist	4: Warning	4: Warning	Yes	The selected DI, DO/RO, and AI hardware resources do not exist.	Check whether the power supply unit and expansion cards are firmly installed. Check the drive unit according to the solutions to A99.01, A99.02, and A99.03.

Appendix Electrical Wiring Diagram

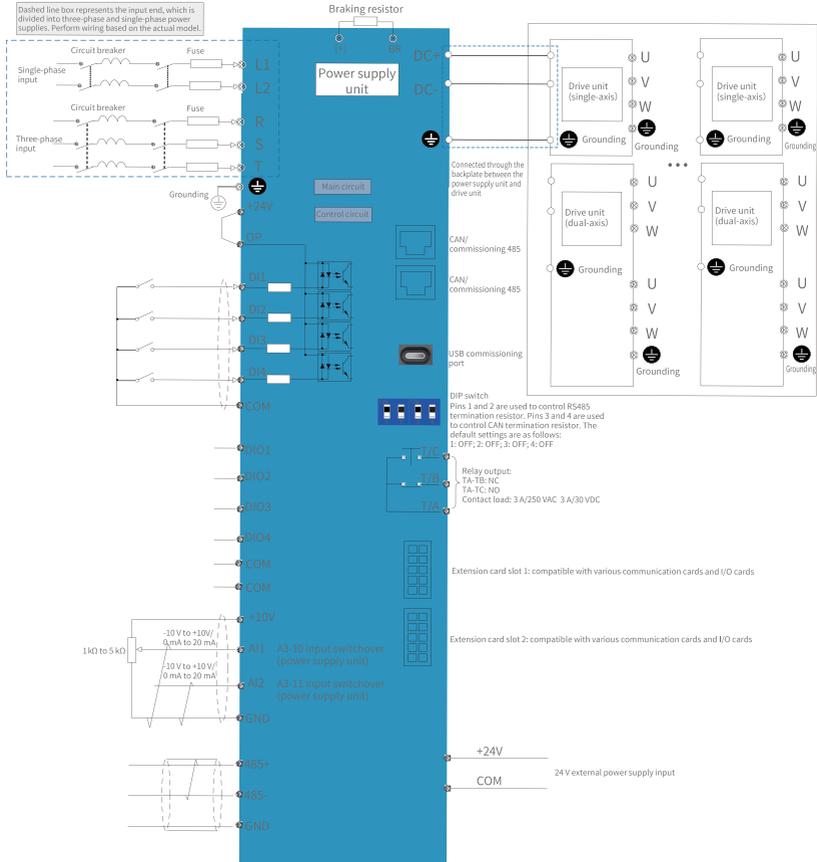


Figure -5 Electrical wiring



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