Smile100 Series

Door Operator Controller

User Manual

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Shenzhen Megmeet Electrical Co., Ltd. provides comprehensive technical support for our valued customers. Please contact your nearest Megmeet office or service center, or connect directly with Megmeet headquarters if any assistance is needed.

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Foreword

Thank you for choosing the Smile100 Series Door Operator Controller of Shenzhen Megmeet Electrical Co., Ltd.

This user manual includes comprehensive introductions to the Smile100 door operator controller's installation, wiring, parameter setting, troubleshooting, maintenance, and operation instructions.

The user and operator of this product should thoroughly and carefully read this manual, and be fully familiarized with its safety precautions before use and operations.

Unboxing inspection

When unboxing the product, please make sure to check the followings:

- Whether there is any damage to the product;
- Whether the rated values on the nameplate of this product are consistent with your order requirements.

Our company has implemented strict inspection on the product's manufacturing and packaging. If there is still any error, please contact us or the local distributor.

We are engaged in the continuous improvement of our products. The relevant manuals provided by us are subject to changes without notice.

Safety precautions

Mark	Definition
 Danger	It indicates that failure to operate according to instructions/requirements will result in death or serious personal injuries.
	It indicates that failure to operate according to instructions/requirements may result in death or serious personal injuries.
 Caution	It indicates that failure to operate according to instructions/requirements may result in minor personal injuries or property damage.

Contents

Chapter 1 Product Information

1.1 Nameplate and model

1.1.1 Nameplate

1.1.2 Model

1.2 Model selection

Model	Power capacity (kVA)	Input current (A)	Output current (A)	Matching power (W)
Single-phase 220 V. Range: 220 to 240 V. 50/60 Hz				
Smile100-2S0.2	0.4	2.2	1.2	200
Smile100-2S0.4	0.8	4.5	2.3	400

1.3 Technical specifications

Item	Specification
Electrical specification	
Input voltage	Single-phase model: 200 to 240 V; fluctuation within ±10%
Input frequency	50/60 Hz ±5%
Output voltage	0 to input voltage
Output frequency	0 to 99.99 Hz
Control characteristic	
Control mode	SVC; FVC
Speed range	1: 100 (SVC); 1: 1000 (FVC)
Speed accuracy	±0.5% (SVC); ±0.05% (FVC)
Startup torque	180% rated torque at 0.5 Hz (SVC); 180% rated torque at 0 Hz (FVC)
Frequency setting	Setting via operating panel
Resolution	Frequency: 0.01 Hz. Current: 0.01 A
Overload capacity	1 minute for 150% rated output current, 1 second for 180% rated output current
Function	
Main function	• When controlling AC asynchronous motor, it supports dynamic auto-tuning of motor parameter. • When controlling AC PMSM, it supports no-load and with-load auto-tuning of encoder zero position and motor parameters. • It supports general-purpose ABZ encoder to facilitate FVC operation of AC PMSM. • It accepts the input signal from open collector or push-pull encoder. • Distance control and speed control. • It supports door width auto-tuning, automatic cyclic demo, automatic detection of obstruction, and parameter upload/download (via optional operating panel).
Protection	Over-load protection, over-voltage protection, under-voltage protection, over-current protection, inter-phase short-circuit protection, etc.

I/O

Power supply	+24 V

1.4 Product appearance

Table 1-1 Product appearance and parts

1.5 Product dimensions and mounting dimensions

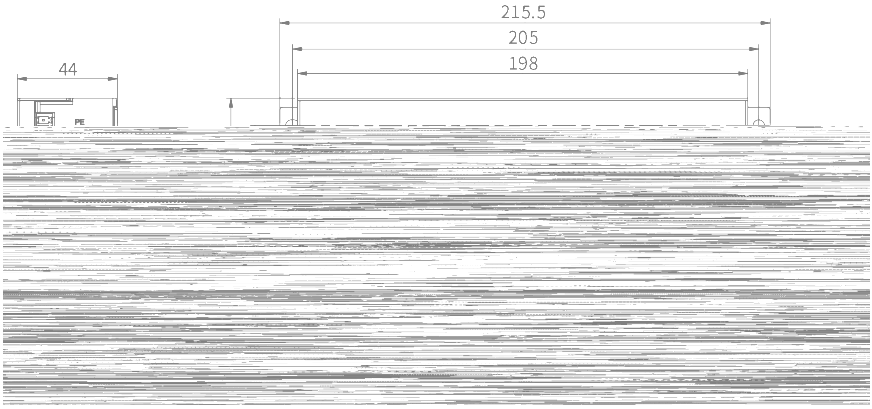


Table 1-2 Product dimensions and mounting dimensions

1.6 Requirements on installation site

Make sure that the installation site meets the following requirements.

- Do not install in places exposed to direct sunlight, humidity, or water droplets;

- Do not install in environments with flammable, explosive, or corrosive gases/liquids;
- Do not install in locations with oily dust, fibers, or metal particles;
- Install vertically on objects that are flame-retardant and can bear the weight of the machine body;
- Ensure there is adequate heat dissipation space around the product, and that the ambient temperature is within the range of -10 to +40 ;
- The installation foundation shall be solid and meet the vibration requirements: 3.5 m/s² for 2 to 9 Hz; 10 m/s² for 9 to 200 Hz (IEC60721-3-3);
- The installation site shall be non-condensing, and humidity shall be less than 95%RH;
- Note that the product IP rating is IP20 and the pollution degree is 2 (dry, non-conductive dust pollution).

Caution

When the ambient temperature exceeds 40 , derated use is recommended, with a 2% derating for every 1 increase in temperature. The maximum working temperature is 50 .

Maintain the ambient temperature between -10 and 40°C. Install the product in a well-ventilated area or add an external cooling device to improve its reliability in operation.

Chapter 2 Electrical Installation

2.1 Wiring precautions

Danger

Wiring shall be performed only by qualified professionals who are proficient in electrical operations.

To facilitate the over-current protection on input side and the maintenance after power failure, please connect the Smile100 model to the power supply via MCCB or fuse.

Do not perform wiring until the power of the Smile100 model is completely cut off for more than 10 min.

After connecting the external power emergency stop terminal, ensure to verify the effectiveness and reliability of its connection.

Leakage current above 3 mA exists in the Smile100 grounding, and its value depends on the operating conditions. To ensure safety, The Smile100 model and the motor shall be grounded separately using independent cables. It is recommended to use type B leakage protection devices (ELCB/RCD).

When the Smile100 is powered on, no part of the human body is allowed to touch its wiring terminals. Ensure that

table.

The cross-sectional area of the protective earthing conductor (grounding cable) shall comply with the requirements of 4.3.5.4 in IEC 61800-5-1.

Power supply cable (mm^2)	Motor cable (mm^2)	Grounding cable (mm^2)

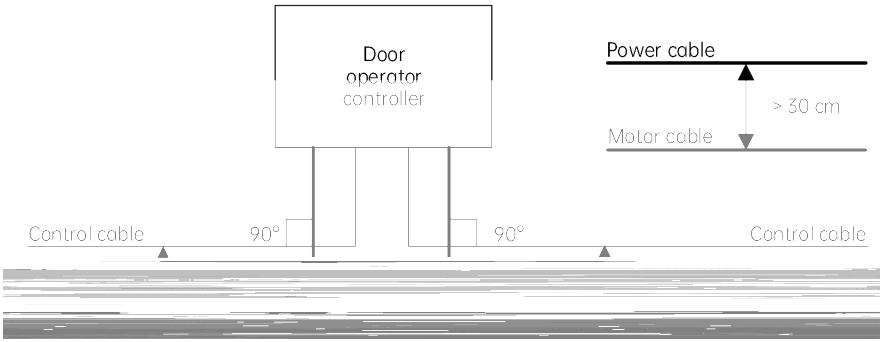


Figure 2-2 Wiring requirements

2.2.3 Power cable

Do not connect the input power to the output U, V, W terminals.
Do not connect the phase-shifting capacitors to the output circuit.
Make sure that the AC input power supply voltage is consistent with the rated input voltage of the Smile100.

Power cables should be selected in accordance with the corresponding requirements based on the on-site application environment and wiring method. A 3×1 mm² cable is recommended.

2.2.4 Motor cable

The longer the motor cable or the higher the carrier frequency, the greater the high-order harmonic leakage current on the cable. Leakage current can have adverse effects on the product and nearby equipment.

The motor cable should be selected in accordance with the corresponding requirements based on the on-site application environment and wiring method. A 3×1 mm² cable is recommended.

2.2.5 Control cable

To minimize the interference with and the attenuation of control signals, the length of control cables should be limited to 50 meters.

Control cables must be shielded cables. Analog signal cables should use twisted-pair shielded cables.

For shielded cables, high-frequency low-impedance shielded cables shall be adopted, such as braided copper mesh, aluminum mesh, or iron mesh.

2.3 Interface instructions

2.3.1 Power terminal

Ensure that the input/output plug-in terminals are reliably connected. For mating, please use the original male connector provided with the product. Third-party male connectors may cause poor contact, overheating, and other hazards.
The input terminals must be connected to the grounding cable to prevent accidents.
Before powering on, double-check and ensure the wiring is correct!

Figure 2-3 Power terminal layout

Type	Terminal mark	Terminal function
Single-phase power input	PE, N, L	Input terminal of AC single-phase 220 V power supply
Drive output	W, V, U	For connection with three-phase motor

2.3.2 Control terminal

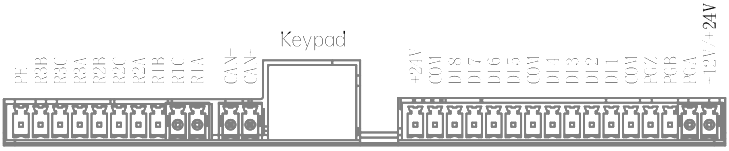


Figure 2-4 Control terminal layout

Table 2-1 Control signal terminal description

Type	Terminal mark	Terminal function	Specification
DI	DI1 to DI8	Multi-select functionality is provided;	

Type	Terminal mark	Terminal function	Specification
		Door open/close input signal; Door open/close deceleration signal; Door open/close limit signal; Light curtain / Safety edge signal; Door lock / Fire emergency signal, etc.	
Relay output	R1A/R1B/R1C	Multi-select functionality is provided; customization is available. The selection includes, but is not limited to, the following: Door open limit output; Door close limit output; Fault signal output, etc.	Relay output terminal: RA-RB NC contact; contact rating: 250 V AC / 5 A, DC 30 V / 5 A. Insulation voltage rating between contacts and control circuit: 2.5k V AC.
	R2A/R2B/R2C		
	R3A/R3B/R3C		
Communication	RS485+	485 communication positive terminal	Standard RJ45 interface for control software upgrading and commissioning
	RS485-	485 communication negative terminal	
	CANH	CAN communication positive terminal	The CAN communication interface can be connected with the elevator control system.
	CANL	CAN communication negative terminal	
	Bluetooth communication	For connection between mobile phone APP and door operator controller.	For commissioning via mobile phone APP.
Encoder	COM	Common terminal	Compatible with incremental encoders. Encoder power supply: 24 V
	PGZ	Encoder Z signal	
	PGB	Encoder B signal	
	PGA	Encoder A signal	
	24 V	24 V	
Power supply	P24 V	Isolated 24 V power supply	Isolated 24 V power supply

Type	Terminal mark	Terminal function	Specification
		positive	Max. output current: 200 mA
	COM	Isolated 24 V power supply ground	

2.3.3 Peripheral electrical component description

Component	Installation position	Function	Specification
Air switch	At the very front end of the AC drive's power input	It provides short-circuit protection and facilitates the disconnection of the AC drive's power input.	Rated voltage: Single-phase 220 V, two-phase 380 V Rated current: 10 A Switch type: Type D

Chapter 3 Operation

3.1 Operating panel introduction

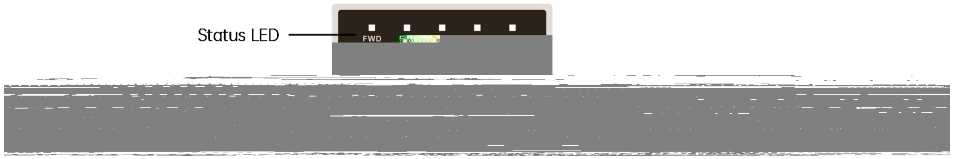


Figure 3-1 Operating panel appearance and functions

Tabel 3-1 Indicator description

Mark	Name	Definition	Color
Status indicator			
FWD	Forward running indicator	ON: When in the stop state, the drive receives a FWD running command; When in the running state, the drive is running in the forward direction; Blinking: The running direction is switching from FWD to REV.	Green
REV	Reverse running indicator	ON: When in the stop state, the drive receives a REV running command; When in the running state, the drive is running in the reverse direction; Blinking: The running direction is switching from REV to FWD.	Green
ALARM	Alarm indicator	ON: The drive enters the alarm state.	Red

<table>
<tr><th>Mark</th><th>Name</th><th colspan="4">Definition</th><th>Color</th></tr>
<tr><td>QUICK</td><td rowspan="2">Menu mode indicator</td><td rowspan="2"></td><td>QUCIK LED</td><td>BASIC LED</td><td>Menu mode</td><td rowspan="2"></td><td>Green</td></tr>
<tr><td>BASIC</td><td>ON</td><td>OFF</td><td>Quick menu</td><td>Green</td></tr>
<tr><td colspan="2"></td><td>OFF</td><td>ON</td><td>Basic menu</td><td></td><td>Green</td></tr>
<tr><td colspan="2"></td><td>OFF</td><td>OFF</td><td>Verification menu</td><td></td><td></td></tr>
<tr><td colspan="7">Unit indicator</td></tr>
<tr><td>Hz</td><td>Frequency indicator</td><td colspan="4">ON:
The present parameter on display refers to the running frequency;
Blinking:
The present parameter on display refers to the frequency reference.</td><td>Green</td></tr>
<tr><td>A</td><td>Current indicator</td><td colspan="4">ON:
The present parameter on display refers to the current.</td><td>Green</td></tr>
<tr><td>V</td><td>Voltage indicator</td><td colspan="4">ON:
The present parameter on display refers to the voltage.</td><td>Green</td></tr>
<tr><td>m/s</td><td>Linear speed indicator</td><td colspan="4">ON:
The present parameter on display refers to the linear speed.</td><td>Green</td></tr>
<tr><td>r/min</td><td>Rotating speed indicator</td><td colspan="4">ON:
The present parameter on display refers to the rotating speed.</td><td>Green</td></tr>
</table>

Tabel 3-2 Multi-function key instructions

Key	Name	Function
0	No function	The multi-function (M) key is disabled.
1	JOG	The M key serves as the JOG key. When the operating panel works as the command channel, press and hold this key to start the drive real-time jog running. To stop, release the key.
2	FWD/REV switchover	The M key serves as the FWD/REV switchover key. When the operating panel works as the command channel, press the key to switch the direction of the output frequency online.
3	Command channel	The M key serves as the command channel switching key, which is valid in the stop state only.

Key	Name	Function
	switchover 1	The command channel switching sequence is as follows: The operating panel as the command channel (the M key LED indicator is ON) → The terminal as the command channel (the M key LED indicator is OFF) → The serial port as the command channel (the M key LED indicator is blinking) → The operating panel as the command channel (the M key LED indicator is ON)
4	Command channel switchover 2	The M key serves as the command channel switching key, which is valid in the stop state and the running state. The switching sequence is the same as mentioned above.
5	Keypad lockout	The M key serves to lock the keypad. To lock the keypad, press and hold the M key, and tap the key three times simultaneously. The lockout mode is determined by the thousands place of the related function code. To unlock the keypad, when the thousands place is set to 5, press and hold the M key, and tap the key three times simultaneously. When the thousands place is set to 0, the keypad lockout function is disabled.
6	Emergency stop	The M key serves as the emergency stop key. Press the key in the open loop mode or the V/F mode, and the elevator will immediately decelerate to stop.
7	Coast to stop	The M key serves as the “coast to stop” key. Press the key in any running mode, and the drive will coast to stop.

3.2 Operating panel display instructions

Please use the operating panel keys according to the description in Figure 3-1.

In level-4 menu, a non-blinking parameter can not be modified, and the possible reasons are explained below.

This parameter is not modifiable, such as actually-detected values, running records, etc.

This parameter is not modifiable in the running state. It supports modification in the stop state only.

Password is required, and only when unlocked via correct password can this parameter be modified.

Chapter 4 Commissioning

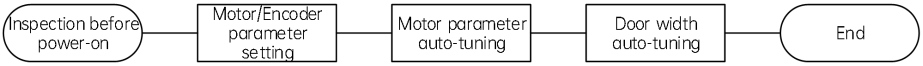


Figure 4-1 Flowchart of door operator controller commissioning

4.1 Wiring

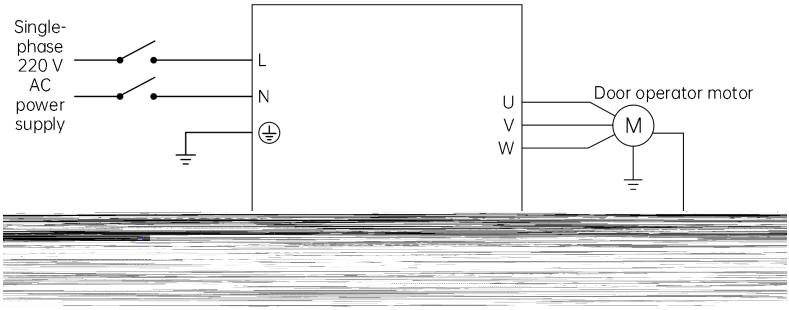


Figure 4-2 Wiring diagram

To minimize the interference with and the attenuation of control signals, the length of control cables should be limited to 50 m, and the spacing from motor cables should be more than 0.3 m.

Control cables must be shielded cables.

Communication cables must use shielded twisted-pair cables with a twisting pitch of 20 to 30 mm, and the shielding layer should be grounded.

Encoders must use shielded cables, and the shielding layer must be reliably grounded at one end.

4.2 Inspection before power-on

Check the followings before powering on the controller.

Ensure correct connection of all cables, and reliable implementation of necessary safety precautions.

Ensure that the motor and controller are configured for the correct supply voltage.

Tighten all screws to the specified tightening torque.

4.3 Synchronous motor auto-tuning

Prior to the first operation of the AC permanent magnet synchronous motor, it is necessary to perform parameter auto-tuning. Otherwise, normal operation cannot be guaranteed.

Before tuning: Ensure that encoder pulses can be monitored via parameter D01.00.

During parameter identification, the motor will rotate. Ensure safety precautions are in place before proceeding.

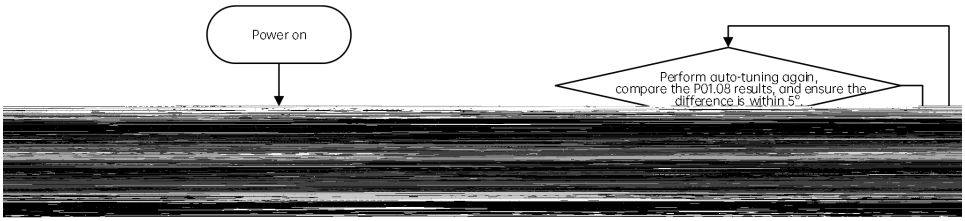


Figure 4-3 Flowchart of synchronous motor auto-tuning

Parameter	Function	Range	Setting
P01.00	Motor rated power	1 to 750 W	Setting based on motor nameplate
P01.01	Motor rated voltage	1 to 300 V	
P01.02	Motor rated current	0.1 to 2.5 A	
P01.03	Motor rated frequency	1.00 Hz to 99.99 Hz	

Parameter	Function	Range	Setting
P01.04	Motor rated rotating speed	1 to 6000 rpm	
P01.05	Deceleration ratio	1.00 to 9.99	
P01.06	Motor parameter auto-tuning	0 to 1	P01.06=1
P02.00	Encoder PPR	0 to 9999	Setting based on encoder parameters

Caution

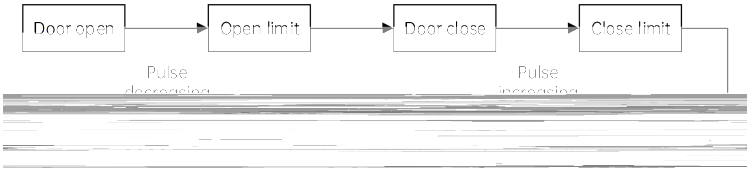


Figure 4-4 Flowchart of door width auto-tuning

Solutions to abnormal auto-tuning of door width:

(1) When the door width auto-tuning command is sent, the door moves in the closing direction first.

Countermeasure: Power off, and swap any two of the power terminal connections (U, V, W) on the Smile100.

(2) During auto-tuning, check for abnormal door open/close pulse signals, such as decreasing number of door open pulses or increasing number of door close pulses.

Countermeasure: Modify the value of P02.01 (encoder direction).

(3) Fault occurs during auto-tuning, such as E26 (door width auto-tuning failure).

Countermeasure: Check the encoder signals and whether the motor parameters are set correctly. For heavy doors, properly increase the P05.14 (low-speed door open/close switchover torque) value.

Chapter 5 Troubleshooting and Maintenance

5.1 Troubleshooting

When a fault occurs in Smile100, the operation panel will display a fault alarm status. Meanwhile, the fault relay will act, the controller will stop outputting, and the motor will coast to stop.

Countermeasures shall be taken to clear the faults.

After the fault is eliminated, the controller can be reset through the following methods:

(1) Press the STOP key on the operating panel for reset.

(2) Reset via the external reset terminal (set the DI terminal to function 9).

(3) Power off the controller completely and then power it on again.

Check the controller status when fault occurs.

Enter Group P09 through the operating panel to view the fault records.

Table 5-1 Fault code list

Code	Name	Possible cause	Solution
E01	DC bus over-voltage	• Input voltage is too high. • Deceleration time is too short. • Hardware over-voltage due to improper wiring.	• Check the voltage of the input power. • Properly set the deceleration time (P03.05, and P04.05). • Check and ensure correct system wiring.
E02	Instantaneous over-current during controller output (hardware over-current)	• Incorrect connection between controller and motor. • Incorrect setting of motor parameters. • Encoder signal error. • Hardware over-current due to improper wiring. • Acceleration or deceleration time is too short.	• Ensure correct wiring between the Smile100 and motor. • Properly set the motor parameters (P01.00 to P01.04). • Check encoder wiring, and ensure correct encoder signal. • Check and ensure correct system wiring. • Properly set the acceleration time (P03.02, and P04.02) or the deceleration time (P03.05, and

		door operator.	ensure no foreign objects exist. • Ensure correct setting of door operator controller parameters.
E10	Abnormal door open	• The motor encounters obstruction 10 consecutive times during door open.	• Adjust the mechanical devices. • Check the mechanical devices and ensure no foreign objects exist. • Ensure correct setting of door operator controller parameters.
E11	Motor over-heat	• A motor over-heat signal is detected in the external circuits.	• Motor over-heat switch acts.
E12	Abnormal door close	• After the motor is powered on, no door close limit signal has been detected, and door close obstruction count exceeds 20.	• Adjust the mechanical devices. • Check the mechanical devices and ensure no foreign objects exist. • Ensure correct setting of door operator controller parameters.
E14	Controller EEPROM read/write fault	• Fault in the controller EEPROM storage circuit.	• Contact manufacturer.
E15	Excessive deviation of speed	• Within the time range of P10.16, the actual speed exceeds the value of P10.15 * speed reference.	• Ensure proper setting of P10.15 and P10.16. • Check the encoder wiring. • Re-perform auto-tuning.
E16	Over-speed	• Within the time range of P10.18, the actual speed exceeds the value of P10.17 * motor rated frequency.	• Ensure proper setting of P10.17 and P10.18. • Check the encoder wiring. • Re-perform auto-tuning.
E17	Module fault	• Inter-phase short circuit. • Short circuit to ground. • Output current is too large.	• Check and ensure correct wiring. • Check and ensure correct wiring. • Check the electrical wiring and mechanical devices.
E18	Current detection circuit fault	• The detection error of the current detection	• Contact manufacturer.

		circuit is too large.	
E22	Operating panel EEPROM read/write error	• Fault in the operating panel EEPROM storage circuit.	• Replace the operating panel. • Contact manufacturer.
E23	Encode fault	• Encoder is damaged. • Incorrect encoder wiring. • Incorrect setting of encoder PPR.	• Check the encoder. Replace if necessary. • Check and ensure correct encoder wiring. • Correctly set the encoder PPR(P02.00)
E26	Door width auto-tuning failure	• Fault in encoder. • Incorrect encoder wiring. • Incorrect setting of auto-tuning speed or torque parameter.	• Check the encoder. Replace if necessary. • Check and ensure correct encoder wiring. • Ensure correct setting of P02.04 (door width auto-tuning speed) and P05.14 (low-speed door open/close switchover torque).
E100	Under-voltage	• This fault might occur in the initial state upon power-on or in the stop state upon power-off. • Input voltage is too low. • Hardware under-voltage due to improper wiring.	• It is normal during power-on and power-off. No action is required. • Check whether the input power voltage meets the requirements. • Check and ensure correct wiring.

5.2 Maintenance

Due to environmental factors such as temperature, humidity, pH, dust, and vibration, as well as internal component aging and wear in the controller, potential faults may occur. Therefore, routine or periodic maintenance must be performed during storage and operation.

(1) If the controller has undergone long-distance transportation, conduct a routine check before use to ensure all components are intact and that screws are securely fastened.

(2) During the time of use, periodically clean the dust inside the controller. Inspect all internal fastening screws to confirm they are free of looseness.


Danger

Only qualified professionals who have received specialized training and authorization shall perform the maintenance on the controller.
Maintenance personnel must remove all metal accessories before maintenance.
Insulated clothing and tools that meet safety requirements shall be used during maintenance.
When the controller is powered on or in operation, dangerous high voltage exists inside.
Before inspecting or maintaining the controller, the input power must be reliably disconnected, and a waiting period of at least 10 minutes is required after power-off.

For controllers stored for more than 2 years, use a voltage regulator to slowly increase the supply voltage during the first power-on.
Do not leave metallic objects such as wires, tools, or screws inside the controller.
The controller contains static-sensitive IC components; do not touch them directly.

5.2.1 Routine maintenance

The Smile100 must be operated in the specified environmental conditions (refer to Section 1.6 “Requirements on installation site").

Please perform routine maintenance as per the table below to detect anomalies in a timely manner and extend the controller's service life.

Items	Content	Criteria
Running environment	Temperature and humidity	Proper use within range of -10 to +40 . Derated use within 40 to 50 . Humidity less than 95%RH; non-condensing.
	Dust and water dripping	No conductive dust; no water dripping.
	Gas	No strange smell.
Smile100	Vibration and heating	Vibration is stable and within a limited range; temperature is within proper range.
	Noise	No abnormal sound.

5.2.2 Periodic maintenance

Based on the operating environment, users should perform a periodic inspection of the controller every 3 to 6 months to eliminate potential faults and ensure stable high-performance operation on a

long-term basis.

Inspection items shall include the followings.

Control terminal screws: Check for looseness. If loose, tighten with a screwdriver of appropriate torque and size.

Power terminal contacts: Ensure firm connection, and verify no overheating marks on busbars or cable joints

Power and control cables: Inspect for damage, especially cuts or abrasions where cables contact metal surfaces.

Cable lug insulation: Ensure that the insulating tapes on power cable lug and control signal cable lug are intact (no peeling or cracking).

Circuit boards and air ducts: Thoroughly clean the dust, preferably using a vacuum cleaner.

Caution

Parameter	Name	Range	Default	Property
0: Signal not arrived 1: Signal arrived				
D01.03	Frequency reference	0.00 to 99.99 Hz	Actual	*
D01.04	Output reference	0.00 to 99.99 Hz	Actual	*
D01.05	Output voltage	0 to 999 V	Actual	*
D01.06	Output current	0.00 to 9.99 A	Actual	*
D01.07	Output torque	0.0 to 200.0%	Actual	*
D01.08	Bus voltage	0 to 999 V	Actual	*
D01.09	Input terminal 1 status	0 to 11111	Actual	*
This parameter indicates the status of the input terminal. Each bit represents a different terminal. 0: The corresponding terminal is disconnected from the common terminal 1: The corresponding terminal is connected with the common terminal				
D01.10	Input terminal 2 status	00 to 11	Actual	*
This parameter indicates the status of the input terminal. Each bit represents a different terminal. 0: The corresponding terminal is disconnected from the common terminal 1: The corresponding terminal is connected with the common terminal				
D01.11	Output terminal status	000 to 111	Actual	*
This parameter indicates the status of the output terminal. Each bit represents a different terminal. 0: The corresponding terminal is disconnected from the common terminal 1: The corresponding terminal is connected with the common terminal				
D01.12	Key backup	0 to 65535	Actual	*
D01.13	Z signal pulses	0 to 65535	Actual	*
D01.14	Z signal correction pulse deviation	0 to 65535	Actual	*
D01.15	Z signal correction error count	0 to 65535	Actual	*
D01.16	Z signal correction maximum deviation	0 to 65535	Actual	*
D01.17	Encoder counter	0 to 65535	Actual	*
D01.30	U phase current zero drift	0 to 65535	Actual	*
D01.31	V phase current zero drift	0 to 65535	Actual	*

Parameter	Name	Range	Default	Property
D01.32	W phase current zero drift	0 to 65535	Actual	*
D01.39	Software sub-version number	0 to 65535	Actual	*

6.3 Basic parameters

Parameter	Name	Range	Default	Property
P00: Basic parameters				
P00.00	Password lockout	0 to 65535 (00000: Password function is invalid, and there is no password protection for parameters. XXXXX: Password protection for parameters is enabled)	0	○
XXXXX: When set to a non-zero value, the password function will be enabled. At the time, the operating panel supports parameter viewing only. Password verification is required before parameter				

<table>
<tr><th>Parameter</th><th>Name</th><th>Range</th><th>Default</th><th>Property</th></tr>
<tr><td colspan="5">modification.
00000: When set to this value, the password function is invalid. To disable the password lockout function, set this parameter to this value..
Password setting: When a new password is set, it will be effective after five minutes of no action via operating panel.</td></tr>
<tr><td>P00.01</td><td>Parameter update</td><td>0 to 30</td><td>0</td><td>×</td></tr>
<tr><td colspan="5">0: Invalid
1: Restore to default settings
2: Clear fault information
3: Restore the user parameters
4: Upload parameters to the external operating panel
5: Download parameters from the external operating panel</td></tr>
<tr><td>P00.02</td><td>Door open/close mode selection</td><td>0, 1</td><td>1</td><td>×</td></tr>
<tr><td colspan="5">0: Speed control (with 4 switches)
1: Distance control (with encoder)</td></tr>
<tr><td>P00.03</td><td>Running command selection</td><td>0 to 3</td><td>1</td><td>×</td></tr>
<tr><td colspan="5">0: Controlled by operating panel (manual)
Start/Stop running via the operating panel. Press RUN for door open, for door close, and STOP RESET for stop.
1: Controlled via terminal (automatic)
The Smile100 performs the door open/close through the door open/close command sent by the control system.
If door open/close curve has been optimized through adjustment of related parameters, set P00.03 to 1, and the Smile100 will be integrated into the elevator system and execute the door open/close command sent by the elevator controller.
<table>
<tr><td colspan="3">Door open command (OD terminal) takes precedence.
Set the ones place of P06.15 to 0 (by default).</td><td colspan="3">Door close command (CD terminal) takes precedence.
Set the ones place of P06.15 to 1.</td></tr>
<tr><td>OD terminal</td><td>CD terminal</td><td>Command</td><td>OD terminal</td><td>CD terminal</td><td>Command</td></tr>
<tr><td>0</td><td>0</td><td>Stop</td><td>0</td><td>0</td><td>Stop</td></tr>
</table>
</td></tr>
</table>

Parameter		Name		Range	Default	Property
0	1	oor close	0	1	Door close	
1	0	Door open	1	0	Door open	
1	1	Door open	1	1	Door close	

2: Cyclic demo running

This function is used to demonstrate the door operator and for trial run in factory, during which the control system is not required.

Once the door operator running curve is adjusted in the operating panel mode (P00.03=0), cyclic demo running can be started automatically.

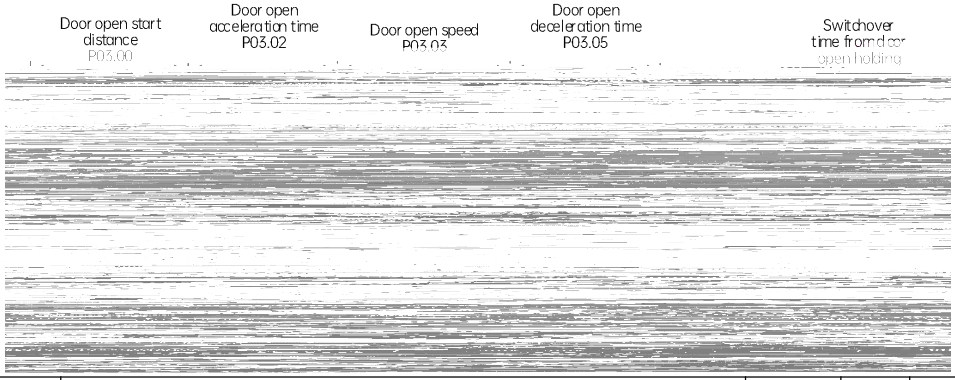
The interval time and running times of door open/close demo running can be set via parameter Group P08. Press STOP to halt the operation.

To start the cyclic demo running, press RUN or , or close the external terminal OD/ e

Parameter	Name	Range	Default	Property
P01.02	Motor rated current	0.10 to 2.5 A	1.1 A	×
P01.03	Motor rated frequency	1.00 to 99.99 Hz	24.00 Hz	×
P01.04	Motor rated rotating speed	1 to 6000 rpm	900 rpm	×
Set the above parameters based on the motor nameplate. To achieve excellent vector control performance, accurate motor parameters are required. The system provides a parameter auto-tuning function. Accurate parameter tuning requires correct setting of the motor nameplate parameters.				
P01.05	Deceleration ratio	1.00 to 9.99	1.00	×
In most cases, this parameter is set to 1. If the encoder is not installed on the motor shaft, set the value according to actual conditions. This parameter is valid only when P00.06=1 (Asynchronous motor closed-loop vector control).				
P01.06	Motor parameter auto-tuning	0, 1	0	×
0: No action 1: Motor parameter auto-tuning Set P00.03 to 0, and configure the motor nameplate parameters (P01.00 to P01.04) correctly. When P01.06 is set to 1, press RUN to start motor auto-tuning, and press STOP RESET to abort the process. Upon completion, P01.06 will be restored to 0 automatically. For synchronous motor auto-tuning, the encoder magnetic pole angle and direction will be automatically obtained. For asynchronous motor tuning, it is required to remove the belt pulley. For details of auto-tuning, please refer to Section 4.3 (Synchronous motor auto-tuning).				
P01.07	No-load current	0.01 to 2.50 A	0.36 A	×
This parameter is valid for asynchronous motors only. Before using this parameter, set P00.06 to 0 (Asynchronous motor open-loop vector control) or 1 (Asynchronous motor closed-loop vector control).				

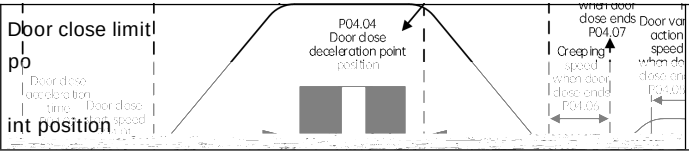
Parameter	Name	Range	Default	Property
P01.08	Magnetic pole angle	0.0 to 359.9	0	×
This parameter is valid for synchronous motors only (i.e., when P00.06 is set to 2).				
P01.09	Stator resistance	0.00 to 99.99 Ω	15.62 Ω	×
P01.10	Rotor resistance	0.00 to 99.99 Ω	37.88 Ω	×
P01.11	Motor inductance	0 to 9999 mH	11.21 mH	×
P01.12	Motor inductance 1	0 to 9999 mH	11.21 mH	×
P01.13	Mutual inductance	0 to 9999 mH	1018 mH	×
P01.14	Slip compensation gain	50.0% to 200.0%	100.0 %	×
P02: Encoder door width parameters				
P02.00	Encoder PPR	0 to 9999	1024	×
P02.01	Encoder direction	0, 1	0	×
0: SCCC				

Parameter	Name	Range	Default	Property
It defines the speed for the first operation after the door operator is powered on. Since the door operator does not know the actual position of the door during its first operation after power-on, it runs at this speed for position calibration when a running command is received. This parameter is effective only under distance control (P00.02=1).				
P02.04	Door width auto-tuning speed	0.01 to 15.00 Hz	4.00 Hz	○
It defines the running speed during door width auto-tuning. To minimize errors in door width tuning, the speed should not be set too high. Excessive speed may cause the door to collide when reaching the open/close limit.				
P02.05	Door width auto-tuning enable	0 to 2	0	×
0: Invalid 1: Door width auto-tuning mode 1 is valid 2: Door width auto-tuning mode 2 is valid For details of door width auto-tuning, refer to Section 4.4 (Door width auto-tuning). When P00.03 is set to 0 and P02.05 is set to 1, press RUN to start door width auto-tuning, and press STOP RESET to abort the process. Upon completion, P02.05 will be restored to 0 automatically. When P00.03 is set to 0 and P02.05 is set to 2, press RUN to start door width auto-tuning and door vane auto-tuning, and press STOP RESET to abort the process. Upon completion, P02.05 will be restored to 0 automatically (hall door is required for this mode).				
P02.06	Low digit of door width	0 to 9999	3461	×
P02.07	High digit of door width	0 to 9999	0	×
The lower digits (below 10000) of the pulse count obtained from door width auto-tuning are stored in P02.06, while the higher digits (above 10000) are stored in P02.07. Door width calculation formula: Door width = P02.07 × 10000 + P02.06 The pulse count value obtained from auto-tuning can be manually modified via operating panel.				
P02.08	Pulse of door close limit switch position	0 to 9999	0	×
When the DI terminal is configured for the door close limit switch (function 4 or 14) and the hundreds place of P06.15 is set to 1, the door operator will automatically learn the pulse count for the door close limit switch position during door width auto-tuning. The learned value is stored automatically upon				

Parameter	Name	Range	Default	Property
completion. During normal running, this signal will automatically correct the door operator's position.				
P03: Door open curve parameters				
Under distance control, please correctly configure the functional parameters (related to distance control) in Group P6. The door open speed curve is shown below. The complete door open process consists of four phases: open start, high-speed open, creeping open, and position hold. Properly set the parameters according to the diagram below to achieve the desired door open performance. 				
P03.00	Door open start distance	0 to 9999	576	○
Under distance control, P03.00 indicates the start distance, and the unit is pulse count. Under speed control, P03.00 indicates the start time, and the unit is ms.				
P03.01	Door open start speed	0 to 15.00 Hz	3.50 Hz	○
P03.02	Door open acceleration time	0.1 to 99.9 s	1.3 s	○
It defines the acceleration time required for the door operator to ramp up from zero frequency to the maximum frequency during door open.				
P03.03	Door open speed	0.00 to Max. frequency	20.00 Hz	○

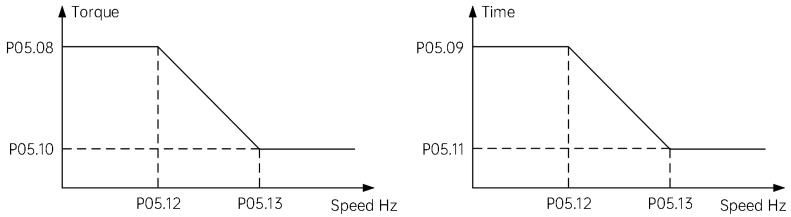
Parameter	Name	Range	Default	Property
		(P00.04)		
It defines the speed (frequency) during high-speed door open.				
P03.04	Door open deceleration point position	50.0% to 90.0%	65.00 %	○
When the pulse count ≥ P03.04 × door width, the door operator decelerates from P03.03 (door open speed) to P03.06 (creeping speed when door open ends). The larger the setting of P03.04, the closer the door open deceleration point is to the open limit.				
P03.05	Door open deceleration time	0.1 to 99.9 s	2.0 s	○
It defines the deceleration time required for the door operator to ramp down from the maximum frequency (P00.04) to zero frequency during door open.				
P03.06	Creeping speed when door open ends	0 to 15.00 Hz	3.00 Hz	○
It defines the low-speed creeping speed (frequency) of the door operator during door open.				
P03.07	Door open limit point position	80.0 to 99.9%	90.00 %	○
When the door position pulse > P03.07 × door width, the door operator outputs the door open limit signal.				
P03.08	High-speed zone of re-open curve	10.0% to 90.0%	90.00 %	○
P03.08 defines the high-speed zone of the re-open curve when the door is re-opened. Adjusting this parameter can improve the efficiency of door re-open. For example: When P03.08 = 70.0%, and 100 - 70 = 30, it means that when the door position is within 0 to 30% of the total width, the door will automatically accelerate to high speed if door re-open is performed. When the door position is within 30 to 100%, a running curve will be automatically calculated based on the present position.				
P04: Door close curve parameters				
Please correctly configure the functional parameters (related to distance control) in Group P6. The door close speed curve is shown below.				

Parameter	Name	Range	Default	Property
P04.00	Door close start distance	0 to 9999	0	○
Under distance control, P04.00 indicates the start distance, and the unit is pulse count. Under speed control, P04.00 indicates the start time, and the unit is ms.				
P04.01	Door close start speed	0.00 to 15.00 Hz	4.00 Hz	○
P04.02	Door close acceleration time	0.1 to 99.9 s	2 s	○
It defines the acceleration time required for the door operator to ramp up from zero frequency to the maximum frequency during door close.				
P04.03	Door close speed	0.00 to Max. frequency (P00.04)	18.00 Hz	○
It defines the speed (frequency) during high-speed door close.				
P04.04	Door close deceleration point position	50.0% to 90.0%	62.00 %	○
When the pulse count ≥ (1 - P04.04) × door width, the door operator decelerates from P04.03 (door close speed) to P04.06 (creeping speed when door close ends). The larger the setting of P04.04, the closer the door close deceleration point is to the close limit.				
P04.05	Door close deceleration time	0.1 to 99.9 s	2 s	○
It defines the deceleration time required for the door operator to ramp down from the maximum frequency to zero frequency during door close.				
P04.06	Creeping speed when door close ends	0.00 to 15.00 Hz	1.5.00 Hz	○
It defines the low-speed creeping speed (frequency) of the door operator during door close.				
P04.07	Door vane action position when door close ends	0 to 5000	0	○

Parameter	Name	Range	Default	Property
Under distance control, P04.07 indicates the start distance, and the unit is pulse count. When the pulse count ≤ P04.07, the system executes the process related to door vane actions when door close ends. Under speed control, P04.07 indicates the time for creeping-speed running when door close ends, and the unit is ms.				
P04.08	Door vane action speed when door close ends	0 to 15.00 Hz	0.00 Hz	○
It defines the running speed of door operator when the door vane action position is within the range of P04.07 during door close.				
P04.09	Door close limit point position 	1 to 500	60	○
When the door position is within the door close limit point position, the door operator outputs the door close limit signal.				
P04.10	Final speed of asynchronous door vane retraction during door close	0.00 to 5.00 Hz	0.00 Hz	○
P04.11	Range of asynchronous door vane retraction during door close	0 to 5000	0	○
Under distance control, P04.11 indicates the start distance, and the unit is pulse count. When the pulse count ≤ the setting value of P04.11, the system executes the process related to door vane actions when door close ends. Under speed control, P04.11 indicates the time of running at the asynchronous door vane action speed when door close ends, and the unit is ms.				
P05: Torque parameters				
P05.00	Door open switchover torque	20.0 to P07.07	50.00 %	○
During door open, after the running pulse count reaches the value of door width × P03.07, it continues creeping at the low speed of the door open end section. When the mechanical limit position is reached, the door operator will be locked-rotor. When the locked-rotor torque ≥ P05.00 × motor rated torque, it switches to the door open limit torque holding state until door operator runs in the reverse direction or stops.				

Parameter	Name	Range	Default	Property
P05.01	Door open holding torque	30.0 to P07.07	45.00 %	○

During door open, if the open limit switch is effective, and the locked-rotor torque ≥ P05.00 × motor rated torque, the door operator will maintain

Parameter	Name	Range	Default	Property
		P00.04		
The setting values of P05.08 and P05.10 are based on motor rated torque. The smaller the value, the less resistance the door can withstand. After the door close limit signal is output during door close, the door operator will not detect door close obstruction. If obstruction is detected during door close, the door operator will decelerate according to P06.13 (deceleration time at resistance), and open the door when the speed becomes zero. The following figure shows how the door operator handles obstruction during door close. 				
P05.14	Low-speed door open/close switchover torque	30.0 to P07.07	70.00 %	○
This parameter defines the torque switchover value for door width auto-tuning and the first power-on. The value is a percentage based on the rated motor torque.				
P05.15	Torque setting for door open resistance	0 to P07.07	100.00%	○
P05.16	Time setting for door open resistance	0 to 4999 ms	1600 ms	×
The setting value of P05.15 is based on motor rated torque. The smaller the value, the less resistance the door can withstand. When set to 0, it indicates that P05.15 is not effective. After the door open limit signal is output during door open, the door operator will not detect door open obstruction. When obstruction occurs during door open, the door operator stops responding to door open commands. It will re-start response only after the time interval set by P05.16. When obstruction occurs during door open, if a door close command is received, door operator will immediately respond to the command.				
P05.17	Stop time for door open resistance	0 to 9999 ms	3000 ms	×

Param eter	Name	Range	Default	Modify

When obstruction occurs during door open, the system will respond to the door open command again after the time interval set by P05.17.

When P05.17=9999 ms, door operator does not respond to door open command. Only when a door close command is responded will the door open command be responded again.

P06: Boost parameters

P06.00	DOA, DCA, and DPA output polarity selection	0, 1	1	×

0: When the signal is connected, it indicates that there is door open/close limit and door position output (i.e., relay contact NO).

1: When the signal is disconnected, it indicates that there is door open/close limit and door position output (i.e., relay contact NC).

P06.01	DPA function selection	0 to 19	0	×

0: Door position output (NO)

1: Door re-open signal output at door close resistance (NO)

When P06.01=1, re-open signal is valid. When door close resistance signal is valid, the system starts to output re-open signal. This signal output will be stopped at re-open limit.

2: Door open limit (NO)

3: Door close limit (NO)

4: Fault output (NO)

5: Running (NO)

6: Door vane electromagnetic valve output (NO)

7 to 9: Reserved

10: Door position output (NC)

11: Door re-open signal output at door close resistance (NC)

12: Door open limit (NC)

13: Door close limit (NC)

14: Fault output (NC)

15: Running (NC)

16: Door vane electromagnetic valve output (NC)

The door vane electromagnetic valve function (function 6 and function 16) are used to control the open

Parameter	Name	Range	Default	Property
	P10.01 (Delay of electromagnetic value door vane close). When a door open command is received, the control relay opens the door vane electromagnetic valve, and the door operator maintains zero-speed running within the time range set by P10.00. After the delay time expires, the door operator operates according to normal curve. When a door close command is received, if the close limit is reached and the system keeps zero-speed running, the control relay will close the door vane electromagnetic valve after the time set by P10.01.			
P06.02	Input terminal filter time	2 to 300 ms	10 ms	×

This parameter defines the sensitivity of the DI terminal. If false operations are caused by interference to the DI terminal, the anti-interference capability can be enhanced by appropriately increasing P06.02. However, this will lead to a decrease in the sensitivity of the input terminal.

P06.03	DI1 function selection	0 to 30	7	×
P06.04	DI2 function selection		8	×
P06.05	DI3 function selection		11	×
P06.06	DI4 function selection		12	×
P06.07	DI5 function selection		13	×
P06.08	DI6 function selection		14	×
P06.09	DI7 function selection		0	×
P06.10	DI8 function selection		0	×

Note:

The functions of DI terminals cannot be selected repeatedly. If a function cannot be selected, please check whether the function has been selected by other terminals or if the f m "

Parameter	Name	Range	Default	Property
8: Door close command NO input 9: Fault reset NO input 10: Motor overheat NO input 11: Door open speed switching NC 12: Door open limit NC 13: Door close speed switching NC 14: Door close limit NC 15: Light curtain and safety edge signal NC 20: Motor overheat NC input 21: Door lock signal NO input 22: Door lock signal NC input When function 21 or 22 is selected, door operator will output door close limit signal only after the door lock signal is closed.				
P06.11	Auxiliary detection time for door close resistance	0 to 4999 ms	0	×
If no pulse change is detected during the time set by P06.11, a door close obstruction will be determined. The following conditions shall be met: P00.02=1 (distance control) P00.06=0 (Asynchronous motor open-loop vector control), or P00.06=3 (Asynchronous motor flux vector control) When P06.08 1000 ms, there will be no auxiliary detection for door close resistance. This door close resistance detection is independent from door close torque resistance described in Group P05. No correlation exists between the two.				
P06.12	Percentage of door position output	0.1 to 99.9%	90.00 %	○
When the door position F06.12, the door position output signal (PA) is valid. This parameter is valid only when P06.01=0 (Door position output).				
P06.13	Deceleration time at resistance	0.1 to 2.0 s	0.5 s	○
This parameter indicates the time required for the deceleration from the present door close speed to zero when obstruction occurs during door close. If the value is too small, it will lead to violent door shaking during deceleration. If the value is too large, it				

Parameter	Name	Range	Default	Property

will make the deceleration too slow.

P06.14	Action selection of door operator when a running command is canceled	0 to 2	2	○

0: Torque holding when door position is within open/close limit, and zero-speed running when door is at other positions

1: Stop operation

2: Torque holding when door position is within open/close limit

P06.15	Auxiliary parameter 1	00000 to 11111	0	○

Ones: Door open/close priority selection

0: Door open priority

1: Door close priority

Tens: Demo mode start

0: Start manually

1: Start automatically

Hundreds: Mode of door close limit switch

0: Door width auto-tuning does not include close limit switch position

1: Door width auto-tuning includes close limit switch position; when this signal is valid, it automatically restores to the present position

Thousands: Mode of operating panel STOP key under terminal control

0: STOP key is invalid under terminal control

1: STOP key is valid under terminal control (hold for 2 seconds); press STOP during running, the system halts; press STOP again, and the system resumes normal operation

Ten thousands: Mode of door close resistance detection when door position is within the first one-third distance during door close under distance control

0: Detection is enabled

1: Detection is Disabled

P06.16	Auxiliary parameter 2	00000 to 11111	1	○

Ones: Over-voltage auto-reset enable

0: Auto-reset is disabled

1: Auto-reset is [illegible]

Parameter	Name	Range	Default	Property
Tens: Over-current auto-reset enable 0: Auto-reset is disabled 1: Auto-reset is enabled Hundreds: Speed loop parameter amplification 0: Kp is original value 1: Kp amplification by 4 times Thousands: Current slope rise 0: Direct setting of startup current 1: Slope rise of startup current Ten thousands: Shutdown protection enable at abnormal door close 0: Enabled 1: Disabled When the function is enabled, if no door close limit signal has been output during door close, E12 will be reported on condition that: (1) the number of detected obstructions during door close exceeds 20; (2) no door close limit signal is detected during the process. If E12 is reported, the system will reset the fault automatically 20 minutes later after shutdown.				
P06.18	Carrier frequency	4 to 16 kHz	8 kHz	×
P06.19	Door prying open speed under open loop control with asynchronous motor	2.50 to 15.00 Hz	4 Hz	○
P06.20	Door close time protection	0 to 30 s	0	○
When P06.20 ≤ 2, door close protection is disabled. When P06.20 is set to a value greater than 2 s, if no door close limit signal is received within the set time range starting from the moment when the door close command is output, the system will re-open the door.				
P06.21	Voltage compensation under flux vector control	0 to 30%	10%	×
P06.22	Holding frequency of door close limit under flux vector control	0.01 to 5.00 Hz	1.00 Hz	○
P06.23	Holding frequency of door open limit under flux vector control	0.01 to 5.00 Hz	1.00 Hz	○
P06.24	Switchover delay from speed to torque under flux vector control	100 to 3999 ms	2500 ms	×

Parameter	Name	Range	Default	Property
P06.25	Frequency range of no door open/close resistance detection under flux vector control	0.10 to 15.00 Hz	7.00 Hz	○
P06.26	Door open voltage compensation under flux vector control	0 to 8%	0%	×
During door close, P06.21 defines the voltage compensation under flux vector control. During door open, the voltage compensation under flux vector control is P06.21 + P06.26.				
P06.27	Frequency cutoff point of voltage compensation under flux vector control	10.00 to 50.00 Hz	50.00 Hz	×
P06.28	Auxiliary parameter 3	00000 to 11111	100	○

Ones: Door open command hold at initial power-on under distance control

0: Auto-hold is disabled.

1: Auto-hold is enabled. During operation of initial power-on under distance control, if the door open command lasts for over 2.5 seconds and door operator fails to output any door open limit signal before the command is withdrawn, the door operator will continue the door open action until an open limit signal is output. Only then will the door operator resume responding to the external commands of door open/close.

Tens: Door operator address setting under CAN communication control

0: Front door

1: Rear door

Hundreds: PMSM power-on angle search method

0: Current method

1: Pulse method

Thousands: Motor overload protection shield

0: Not shielded

1: Shielded

Ten thousands: Shutdown protection enable at abnormal door open

0: Enabled

1: Disabled

When the function is enabled, E10 will be reported on condition that:

(1) the number of detected obstructions during door open exceeds 10;

(2) no door open limit signal is detected during the process.

The fault will be reset automatically 20 minutes after the motor stops.

Parameter	Name	Range	Default	Property
compromise torque output capability. **Note:** For most applications, adjusting the current loop's Pi parameters is unnecessary. Please use caution when modifying these parameters.				
P07.07	Torque limit	0.0 to 200.0%	120.00%	○
This parameter sets the limit of the torque current output by the Smile100. Its value is a percentage based on the motor rated current (P01.02).				
P07.08	Speed filter time constant	0 to 7	2	×
This parameter facilitates the filtering of the speed loop adjuster (ASR) output. When P07.08=0, no filtering is performed on speed loop.				
P08: Demo running parameters				
P08.00	Door open limit holding time in demo running	1.0s to 999.9s	2.0s	○
P08.01	Door close limit holding time in demo running	1.0s to 999.9s	2.0s	○
P08.02	Demo running times record	0 to 65535	0	○
P08.03	Designated times of demo running	0 to 65535	0	○
This parameter records the times of demo running. P08.02 is automatically stored when power is lost. After power-on again and reaching the target position, each door open increments P08.02 by 1 based on the stored value. The demo mode is used for product demonstrations and aging tests. It is an automatic cycle that starts when  is pressed or an external terminal command for door open/close is received. When demo running starts, the door operator opens or closes the door at a low speed. After the door open/close limit is reached, the system will perform the door open/close according to the running curve. After open limit is reached, a timer starts. When the time reaches P08.00, the door automatically closes. After close limit is reached, the door stays closed for the duration set by P08.01, then reopens. This cycle repeats until  is pressed or the running count exceeds P08.03. Both P08.02 and P08.03 are user-modifiable parameters.				

Parameter	Name	Range	Default	Property
	P09: Fault			

Parameter	Name	Range	Default	Property
22: Operating panel EEPROM read/write error (E22) 23: Encode fault (E23) 24: Reserved 25: Reserved 26: Door width auto-tuning failure (E26) 100: Under-voltage				
P09.05	Bus voltage at the last fault	0 to 999 V	Actual	*
P09.06	Output current at the last fault	0.00 to 99.99 A	Actual	*
P09.07	Running frequency at the last fault	0.00 to 99.99 Hz	Actual	*
P09.08	Frequency reference at the last fault	0.00 to 99.99 Hz	Actual	*
P09.09	Door position at the last fault	0 to 65535	Actual	*
P09.10	Input terminal status 1 at the last fault	0 to 11111	Actual	*
P09.11	Input terminal status 2 at the last fault	0 to 111	Actual	*
P09.12	Output terminal status at the last fault	0 to 111	Actual	*
P09.13	Low digits of door open/close times record	0 to 9999	Actual	*
P09.14	High digits of door open/close times record	0 to 9999	Actual	*
P09.15	Running hours record	0 to 23 h	Actual	*
P09.16	Running days record	0 to	Actu	*

Parameter	Name	Range	Default	Property
		9999	al	
P09.17	Controller software version number	0.00 to 99.99	Actual	*
P09.18	Operating panel software version number	0.00 to 99.99	Actual	*
P10: Advanced parameters				
P10.00	Delay of electromagnetic value door vane open	0 to 9999 ms	0	×
P10.01	Delay of electromagnetic value door vane close	0 to 9999 ms	0	×
Select function 6 and function 16 of P06.01. This function controls the open of the door vane electromagnetic valve. This function shall be used with P10.00 or P10.01. When a door open command is output, the control relay opens the door vane electromagnetic valve, and it keeps zero-speed running within the duration set by P10.00. When the delay time is reached, it will run according to the normal curve. When a door close command is received, if the close limit is reached, the system keeps zero-speed running within the duration set by P10.01. When the delay time is reached, the control relay will close the door vane electromagnetic valve.				
P10.02	Creeping time during door open	0.1 to 5.0 s	0.7 s	○
P10.03	Creeping time during door close	0.1 to 5.0 s	0.7 s	○
P10.04	Door vane distance	0 to 9999	0	×
Two methods to obtain the value of P10.04: 1: Door width auto-tuning (hall door is required; P02.05=2) 2: Monitoring the pulse value of D01.00				
P10.05	Automatic generation of deceleration point of door open/close curve	0, 1	0	×
0: Set by P03.04/P04.04 1: Calculated automatically by software				

Parameter	Name	Range	Default	Property
P10.06	Automatic calculation of door open holding torque	0, 1	0	×
0: Set via parameters 1: Calculated automatically by software When P10.06=1, the software automatically calculates the door open/close deceleration point. P10.02 and P10.03 set the creeping time in the end section of door open/close.				
P10.07	Action at door open resistance	0, 1	0	×
0: Stop 1: The door continues the door open action at resistance. The multi-function output will generate a resistance signal, and the elevator control system will decide to open or close the door based on the signal. When P10.07=1, if obstruction occurs, the maximum output torque will be 1.1 times the door open resistance torque.				
P10.08	Action at door close resistance	0, 1	0	×
0: Re-open after obstruction occurs 1: The door continues the door close action at resistance. The multi-function output will generate a resistance signal, and the elevator control system will decide to open or close the door based on the signal. When P10.08=1, if obstruction occurs, the maximum output torque will be 1.1 times the door close resistance torque.				
P10.09	Working mode of internal shorting stator relay	0 to 1	1	×
0: Shorting stator in the fault state 1: Shorting stator in the fault/stop state				
P10.10	Current zero offset parameter acquisition method	0 to 2	0	×
0: Automatically obtained at power-on 1: Obtained via P10.11 to P10.13 2: Obtain the zero offset at power-on, store the values into P10.11 to P10.13, and take the values of P10.11 to P10.13 as the current zero offset. When P10.10 is set to 2, the value will automatically switch to 1.				
P10.11	U-phase zero offset value	1700 to 2200	1950	○

Parameter	Name	Range

Parameter	Name	Range	Default	Property
detected bus voltage is lower than 200 V. Hundreds: Mode of door open/close command 0: Non-pulse trigger 1: Pulse trigger Thousands: Reserved Ten thousands: Speed detection method at low speed 0: M method 1: T method				
P10.23	Auxiliary parameter 4	0 to 11110	0	○
Ones: Reserved Tens: Start door width auto-tuning via UP and DOWN keys 0: Start door width auto-tuning by pressing the UP and DOWN keys simultaneously for 5 seconds 1: Function disabled Hundreds: Method of synchronous motor magnetic pole angle searching 0: Method 0 1: Method 1 2: Method 2 Thousands: Reverse door open/close setting (RT non-standard) 0: Disabled 1: Enabled **Note:** The function of the thousands place is used only in the speed control mode. Ten thousands: Terminal signal detection of door close limit is prioritized under distance control 0: Disabled 1: Enabled				
P10.24	Search current setting for synchronous motor	30 to 150%	0%	*
P10.25	Baud rate setting for host device monitoring	0 to 7	0	*
P10.26	Control command	0 to 65535	0	*

Parameter	Name	Range	Default	Property
Bit0: Door open command Bit1: Door close command Bit2: Fault reset				

Appendix A Warranty and Service

Megmeet rigorously adheres to the ISO9001: 2008 standard in manufacturing motor drive products. If any irregularities occur with our products, please contact the product supplier or the headquarters directly. Megmeet is committed to delivering comprehensive technical support services to all our clients.

1. Warranty period

The warranty period for the product is 18 months from the date of purchase, but not exceeding 24 months after the manufacturing date recorded on the nameplate.

2. Warranty scope

During the warranty period, any abnormalities arising from the responsibility of our company can be repaired or replaced free of charge by our company. However, a certain amount of repair charges may apply even within the warranty period under the following circumstances:

(1) Damage caused by fire, flood, severe lightning strikes, or similar reasons;

(2) Man-made damage caused by users' unauthorized modifications;

(3) Damage due to dropping or transportation after purchase;

(4) Damage caused by usage beyond the standard specifications or requirements;

(5) Damage resulting from operation/use not in accordance with the user manual.

3. After-sales service

(1) If there are special requirements for the installation and commissioning of the drive product, or if the product's performance or functionality is not satisfactory, please contact the product distributor or Megmeet.

(2) In case of any abnormalities, please seek assistance by contacting the product supplier or Megmeet.

(3) During the warranty period, any abnormalities caused by manufacturing and design defects will be repaired free of charge by our company.

(4) Beyond the warranty period, repairs will be conducted at the customer's request and charged by our company.

(5) Service fees are calculated based on actual costs. Any agreements in place will take precedence.

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