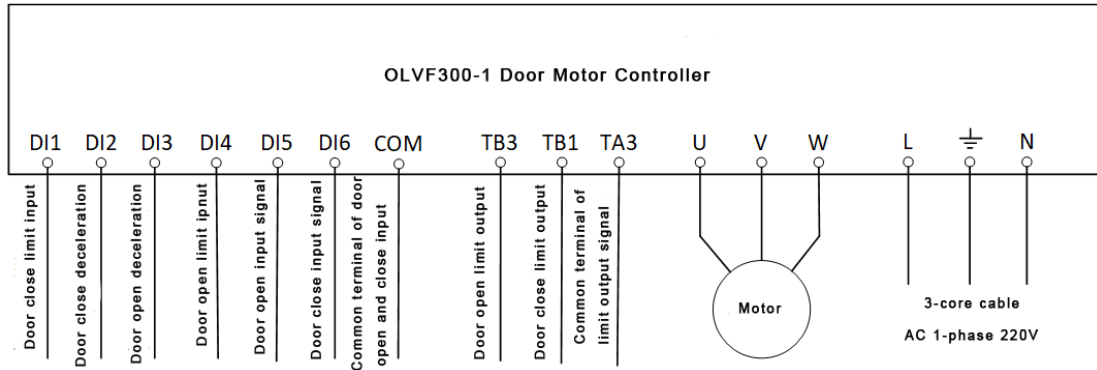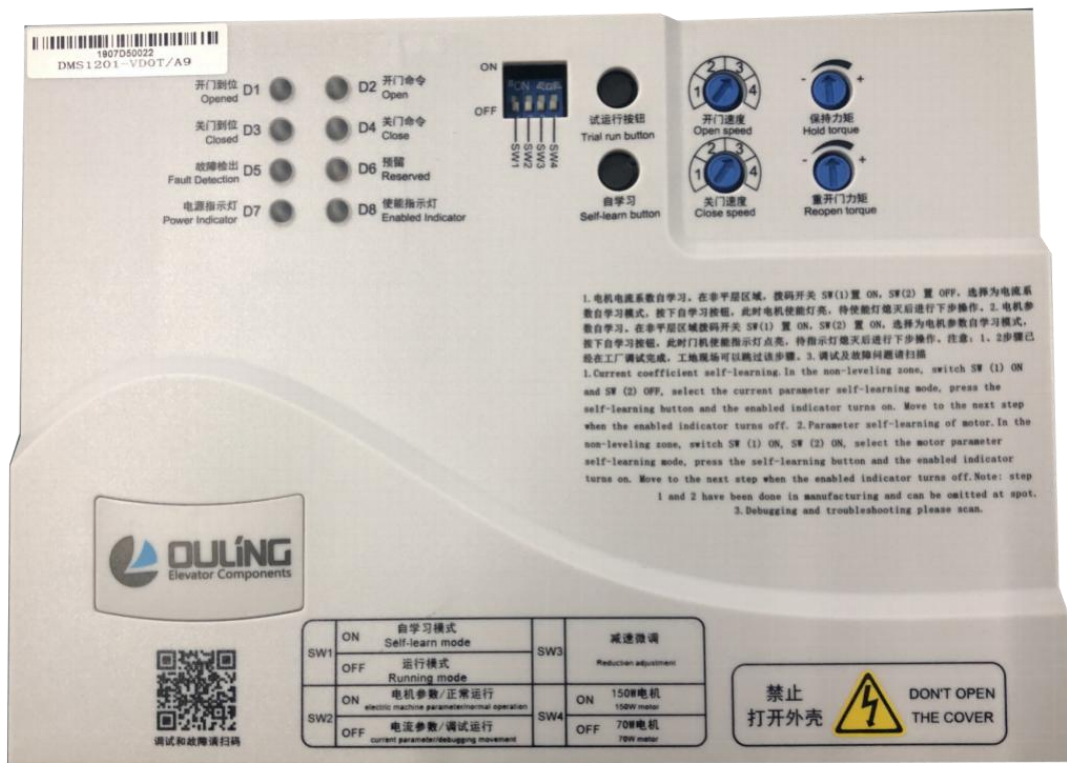# Asynchronous OLVF300-1 Debug Specification

1、OLVF300-1 Wiring Diagram

2、Product Exterior Overview

Note: Description of each part on the diagram

Opened： Light on when door is opened. Convertor outputs signal of door opened

Closed： Light on when door is closed. Convertor outputs signal of door closed

Fault detection： Light on when fault occurred.

Power indicator： Light on when power supply works normally.

Open： Light on when there is open signal.

Close：　　　　　Light on when there is close signal.

Enabled indicator：Light on when current outputted.

SW1-SW2 dial switches：Switches for function selection of learning current coefficient, learning motor parameters, normal operation and test operation.

SW3 dial switches：Switch door speed fine adjustment.

SW4 dial switches：Motor power selection.

Trial run button and Self-learn button：Buttons for functions of learning current coefficient, learning motor parameters, normal operation and test operation.

Knob of door opening speed: divided into Gear 1 to Gear 4 and switch the door open speed

Knob of door closing speed: divided into Gear 1 to Gear 4 and switch the door close speed

Torque holding speed: keep the door open and close holding torque through switching the knob

Torque knob of door re-opening: switch the door re-opening torque through switching the knob

3、Procedure of debugging

Note: The parameters have been set in default in manufacturing. The door can be opened and closed smoothly when the installation of door-motor has been finished.

3.1 Motor power selection

In the non-leveling zone, the DIP switch SW3 performs power selection according to the actual motor power, and re-powers after the selection is completed.

3.2 Current coefficient self-learning

In the non-leveling zone, switch SW (1) ON and SW (2) OFF, select the current parameter self-learning mode, press the self-learning button and the enabled indicator turns on. Move to the next step when the enabled indicator turns off.

3.3 Parameter self-learning of motor

In the non-leveling zone, switch SW (1) ON, SW (2) ON, select the motor parameter self-learning mode, press the self-learning button and the enabled indicator turns on. Move to the next step when the enabled indicator turns off.

　　Note: step 3.2 and 3.3 have been done in manufacturing and can be omitted at spot.

3.4 Trial run

　　Connect the signals of door close to limit, door close deceleration, door open deceleration and door open to limit to DI1~DI4. Switch SW (1) OFF, SW (2) ON, shortly connect to DI5 and COM and then door opens. When the door opens to the limit the

lights on the panel will be on; Shortly connect to DI6 and COM and then door closes. When the door closes to the limit the lights on the panel will be on. If the trail run direction goes against to the description, please exchange any two of the power lines.

4、Factory state

When the test is finished, place the door open speed on Gear 3, door close speed on Gear 3, holding torque in the middle place and the door re-open torque in the middle place.

5、Alarm indicator display

Alarm Code	OC	Phl	LU	OL	EC	EH	OS
Indicator code	D5	D1 D3 D4 D5	D3 D5	D1 D3 D5	D5 D6	D2 D5	D1 D2 D5
Alarm Code	LE	dE	anE	Act	Pol	HU	OC2
Indicator code	D2 D3 D5	D1 D2 D3 D5	D4 D5	D1 D4 D5	D3 D4 D5	D1 D5	D2 D4 D5

6、Alarms Troubleshooting

Alarm Code	Fault Name	Operation state	Possible Causes	Solutions
OS	Over-speed	Emerged during drive energizing	Drive circuit error drive	replace drive
			Encoder error	Replace door motor
		Emerged in motor start-ups	Encoder default angle error	Learning default angle again
			Motor U,V,W phase sequence error	Check and make sure it has been wired correctly
			Encoder leads error	
		Emerged during motor operation	Encoder error	Replace door motor
			Mis-adjustment of door motor system parameters cause overshoot	Reset the gain parameters of regulator.
HU/POL	Main circuit overvoltage Main circuit power failure	Emerged during energizing	Internal circuit board of drive error	Replace door motor drive
			Power is overvoltage	Check if supplied power is excessive
		Emerged during motor operation	Internal braking transistor of drive is damaged	Replace door motor drive
		Emerged during main circuit power failure	Report POL in normal circumstances	

			Loose connection of main power line	Check if lines are connected firmly
LU	Main circuit under-voltage	Emerged during energizing	Power supply is unstable and has low voltage	Check if power supply is stable
			Momentary outage longer than 20ms	Check power supply
			Drive internal components error	Replace servo drive
		Emerged during motor operation	Instant power-off	Check power supply
EC	Encoder communication abnormity	Emerged during energizing	Encoder cable error	Check if encoder wiring is correct and if lines are broken
			Loose contact of encoder lines	Check if encoder lines are connected firmly
			Encoder damaged	Replace door motor
			Drive circuit is internally detected error	Replace door motor drive
EH	Current sampling loop damaged	Emerged during energizing	Internal current sampling loop of drive is damaged	Replace door motor drive
OL	Overload	Emerged during energizing	Internal circuit of drive is error	Replace door motor drive
		Emerged during motor operation	Operated with excessive torque	Check loads
			Wrong connection of drive U,V,W power lines	Check if U,V,W power lines are connected correctly
			Abnormal door motor	Replace door motor
OC	Overcurrent	Emerged during energizing	Internal circuit of drive damaged	Replace door motor drive
		Emerged during motor operation	Short circuit among U,V,W power lines	Check power lines
			Wrong control loop parameters	Reset control loop parameters
			Current output is excessive	Decrease parameter of current upper bond
			Poor grounding and external disturbance	Grounding correctly
			Internal circuit of drive damaged or phase shortage	Replace drive

OC2	Overcurrent2	Emerged during motor operation	Drive error	Replace drive
PHL	Phase shortage	Emerged during motor startups	Protective tube of bus line fused	Replace protective tub
			Phase-shortage of UVW power line	Check connection of power line
			Abnormal motor	Replace motor
		Emerged during motor operation	Protective tube of bus line fused	Replace protective tub
			Phase-shortage of UVW power line	Check connection of power line
DE	Door width error	Emerged during door width self-learning	door motor operation path hindered	Clear hindrance and restart self-learning function
			Abnormal motor	Replace motor
		Emerged during first time low-speed operation	Wrong door width data	Check if door width parameter PN20 is proper, restart self-learning function
			door motor	Clear hindrance and restart
			Abnormal motor	Replace motor
AnE	Default angle error	Emerged during default angle learning	overload	Reduce load and restart
			Operation path hindered and motor blocked	Clear hindrance and restart
			Abnormal motor and encoder	Replace motor
Act	Door open action failed	Emerged during door open	Operation path hindered	Cut off the power and check hindrance. Clear hindrance and restart the operation with power on.
			Wrong door width data	Cut off the power and check hindrance. Restart door width self-learning function with power on
LE	Without self-learning failure	The motor is just running	The drive does not run directly through angle self-learning	Re-angle self-learning and door width self-learning