EURA DRIVES



E3100

FREQUENCY INVERTER

ENGLISH

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1-phase 110V ~ 120V: 0.4kW ~ 2.2kW /0.5HP ~ 3HP
1-phase 220V ~ 240V: 0.2kW ~ 15kW/0.3HP ~ 20HP
3-phase 220V ~ 240V: 0.2kW ~ 75kW/0.3HP ~ 100HP
3-phase 380V ~ 480V: 0.2kW ~ 500kW/0.3HP ~ 670HP
3-phase 460V ~ 600V: 0.75kW ~ 280kW/1HP ~ 400HP



E3100

0.2kW - 500kW/0.3HP - 670HP

FREQUENCY INVERTER

HIGHLIGHTS

- Advanced vector control technology enables more precise control and dynamic performance.
- Optimized current control further enhances high output torque at low frequency.
- Carrier frequency can be adjusted between 0.8 and 16 kHz.
- VVVF control, SVC control, and VC control for AC induction motors.
- SVC control and VC control for permanent magnet synchronous motors.
- Output frequency ranges from 0.50 to 590Hz (V/F) and from 0.5Hz to 500Hz (SVC), with a resolution of 0.01Hz.
- Automatic carrier adjustment, automatic voltage adjustment,rapid current limiting,speed tracking ,voltage and current stall adjustment,and continuous operation at temporary power failure.
- Protection functions: overload, over-current, over-voltage, input under-voltage, input/output phase loss, inverter over-heat, motor over-heat, etc.
- Types of Keypad:1 - line LED keypad, 1 - line LED keypad with potentiometer, 4 - line LCD keypad (IP20/IP66).
- Various expansion cards: digital I/O expansion, AI/AO expansion, PT100/PT1000 temperature sampling expansion, differential encoder/non - differential encoder expansion， resolver encoder, absolute encoder, Profinet, BACnet, EtherCAT, CANopen, EthernetIP, isolated RS485 expansion, etc.
- Communication and programming by built-in Type C port.
- Optional built - in EMI filter.
- Parameter-copy stick.
- Optional STO SIL2.

CE cULus LISTED (FS)

Naming rule

Model naming rule

Order example E3100 0015G/0022P T3
1 2 3

1	Series	
	3100	3100 Series
2	Motor Power (G-Heavy duty / P-normal duty)	
	Relation	
	0007	0.75
	0015	1.5
	0022	2.2
	.....	.....
3	Input Voltage Type	
	S1	means single-phase 110~120VAC
	S2	means single-phase 220~240VAC
	T2	means three-phase 220~240VAC
	T3	means three-phase 380~480VAC
	T5	means three-phase 460~600VAC

Function naming rule

V2 U1 F2 AV01 D20 C1 B1 R3
4 5 6 7 8 9 10 11

4	Structure code		
	V2	V2 Frame Size	
5	Certificate		
	U5	UL+CE	Note7
6	Communication		
	F2	Modbus	Note6
7	Keypad panel		
	AV03	LED keypad in English	Note5
8	Expansion of Encoder		
	D20	Resolver	Note4
9	Control terminal expansion		
	C1	DI/DO Relay expansion card	Note3
10	Braking type		
	B1	Dynamic braking chopper	Note2
11	Filter		
	R3	EMC C3 level filter	Note1

* E3100 series distinguishes between the G-type and P-type drive. The G-type is the heavy-duty type, while the P-type is the normal duty type. User can refer to F161 to select between G and P models. Please refer to page 7~9.

* Frame size V1 doesn't have expansion cards.

Note:

1.The buit-in filter is configured as follows:

Input voltage	Power range	R3	
S1	0.4~2.2kW	Built - in EMI filter	Standard
S2	0.2~15kW	Built - in EMI filter	Standard
T2	0.2~22kW	Built - in EMI filter	Standard
	30~75kW	No built - in EMI filter	None
T3	0.2~45kW	Built - in EMI filter	Standard
	55~500kW	No built - in EMI filter	None
T5	0.75~18.5kW	Built - in EMI filter	Standard
	22~280kW	External EMI filter	Standard

2.The buit-in braking unit is configured as follows:

Input voltage	Power range	Built-in braking unit
S1	0.2~2.2kW	Optional
S2	0.2~3kW	Optional
	4.0~11kW	Standard
	15kW	Optional
T2	0.2~3kW	Standard (frame V1)
	0.2~3.0kW	Optional (frame V2)
	4.0~18.5kW	Standard
	22~75kW	Optional
T3	0.2~30kW	Standard
	37~200kW	Optional
	220~500kW	No built-in braking unit
T5	0.75~18.5kW	Standard
	22~280kW	Optional

3.DI/DO, AI/AO expansion:

Function code	Function code	Model
C1	multi-functional DI/DO (relay) expansion card	E30DIO01
C26	AI/AO (Analog Input/Output) expansion and PT100, PT1000 temperature detection.	E30AIO01

Please reter to Page14

4.Encoder expansion card:

Function code	Definition	Mode
D58	5V differential input PG card	E30CPG01
D59	non-differential input PG card	E30FPG01
D20	Differential resolver with a transformation ratio of 0.5	E30XB01
D23	Differential resolver with a transformation ratio of 0.286.	E30XB02
D72	4-core 23-bit absolute encoder (single-circle)	E30JDZ01

Please reter to Page13

5.Local keypad:

Structure code	Keypad code	Contents
V1~V6	AV01	LED Chinese keypad without potentiometer
	AV02	LED Chinese keypad with potentiometer
	AV03	LED English keypad without potentiometer
	AV04	LED English keypad with potentiometer
	AV11	LCD Chinese keypad
	AV13	LCD English keypad
V7~LB C4B~D3	AL01	LED Chinese keypad without potentiometer
	AL02	LED Chinese keypad with potentiometer
	AL03	LED English keypad without potentiometer
	AL04	LED English keypad with potentiometer
	AL11	LCD Chinese keypad
	AL13	LCD English keypad

Note: The local keypad is removable. Please reter to Page16

6.Communication

Structure code	Communication code	Definition	Expansion card model
V1	F2	Modbus	Local
V2~LB C4B~D3	F2	Modbus	Local
	F3	Isolated Modbus communication terminal interfaces	E30MOD01
	F4	CANopen+Modbus	E30CANOPEN01
	F5	EtherCAT+Modbus	E30ECAT01
	F15	CAN communication (free protocol)+Modbus	E30ECAN01
	F6	Profinet+Modbus	E30PN01
	F12	BACnet+Modbus	E30BACNET01
	F21	BACnet (MS/TP) +Modbus+CAN	E30CAN01 E30BACNET01

Please reter to Page14~15

7.Certificate

Certificate code	Contents	Inverter power
U1	CE	≤500kW
U5	UL+CE	≤355kW
U8	CE+STO	≤500kW
U9	UL+CE+STO	≤355kW

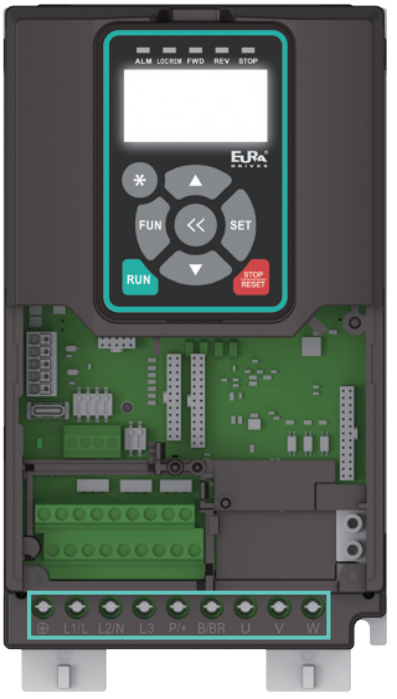
Technical product data

Input	Rated Voltage Range	1-phase 110-120V ±15% 1-phase 220-240V ±15% 3-phase 220V~240V ±15% 3-phase 380~480V (+10%, -15%) 3-phase 460~600V
	Rated Frequency	50/60Hz

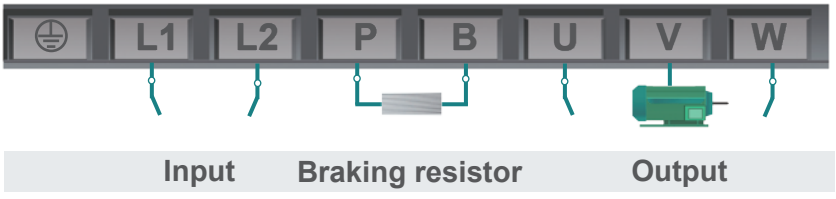
Items		Content
Output	Rated Voltage Range	S2\T2\T3\T5 0～INPUT S1 0～220V
	Frequency Range	0.50～590.0Hz (In SVC control mode, the max frequency should be lower than 500Hz.)
Control Mode	Carrier Frequency	800~16000Hz; Fixed carrier-frequency and random carrier-frequency can be selected by F159
	Input Frequency Resolution	Digital setting: 0.01Hz, analog setting: max frequency X 0.1%
	Control Mode	For induction motor: SVC (open-loop vector control) control, V/F control, VC (Closed-loop vector control) control For PMSM: SVC (open-loop vector control) control VC (Closed-loop vector control) control
	Start Torque	0.5 Hz / 150% (SVC), 5% of rated speed/100% of rated torque (PMSM SVC)
Control Mode	Speed-control Scope	1:100 (SVC), 1:1000 (VC), 1:20 (in PMSM SVC),
	Steady Speed Precision	±0.5%（SVC）, ±0.1%（PMSM VC)
	Torque Control Precision	±5%(SVC)
	Overload Capacity	Heavy duty:150% rated current, 60 seconds. Normal duty:110% rated current, 60 seconds.
	Torque Elevating	Auto torque promotion, Manual Torque Promotion includes 1-20 curves
	V/F Curve	3 kinds of modes: beeline type, square type and under-defined V/F curve
	Startup Mode	Direct startup, speed track startup
	DC Braking	DC braking frequency: 0.20-50.00 Hz, braking time: 0.00~30.00s
	Jogging Control	Jogging frequency range: min frequency~ max frequency, jogging acceleration/deceleration time: 0.1~3000s
	Auto Circulating Running and Multi-stage Speed Running	Auto circulating running or terminals control can realize 15-stage speed running.
	Built-in PID Adjusting	Easy to realize a system for process closed-loop control
	Auto Voltage Regulation (AVR)	When source voltage changes, the modulation rate can be adjusted automatically, so that the output voltage is unchanged.
Operation Function	Frequency Setting	Potentiometer or external analog signal (0～5V, 0～10V, 0～20mA); keypad (terminal) ▲／▼ keys, external control logic and automatic circulation setting.
	Start/Stop Control	Terminal control, keypad control or communication control
	Running Command Channels	3 kinds of channels from keypad panel, control terminal and MODBUS
	Frequency Source	Frequency sources: given digital, given analog voltage, given analog current and given MODBUS
	Accessorial Frequency Source	7 kinds of accessorial frequency
Optional	Built-in EMI filter, built-in braking unit, communication module, remote panel	
Protection Function	Input phase loss, Output phase loss, input under-voltage, DC over-voltage, over-current, inverter over-load, motor over-load, current stall, over-heat, external disturbance, under-load, pressure control, analog line disconnected, PG line disconnection, keypad disconnection, oPEn protection, STO and STO1, fast current limit.	
Display	Keypad showing present output frequency, present rotate-speed (rpm), present output current, present output voltage, present linear-velocity,types of faults, and parameters for the system and operation; LED indicators showing the current working status of inverter.	
Environment Conditions	Equipment Location	In an indoor location, prevent exposure from direct sunlight, free from dust, tangy caustic gases, flammable gases, steam or the salt-content, etc.
	Environment Temperature	-10℃～+50℃
	Environment Humidity	Below 90% (no water-bead coagulation)
	Vibration Strength	Below 0.6g (acceleration)
	Height above sea level	1000m or below
Protection level	IP20 / NEMA1	
Pollution level	PD2	
Applicable Moto	0.2～500kW	

Connection

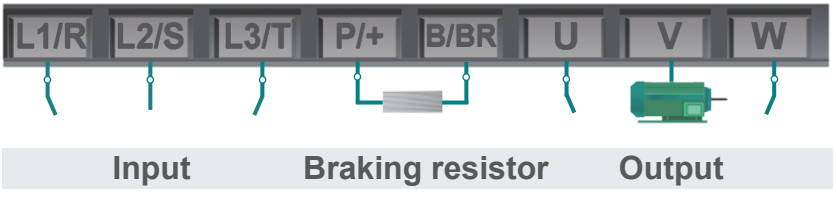
- In case of 3-phase input, connect R/L1, S/L2 and T/L3 terminals (L1/R and L2/S terminals for single-phase) with power source from network and /PE/E to earthing, U, V and W terminals to motor.
- Motor shall have to be ground connected. Or else electrified motor causes interference.



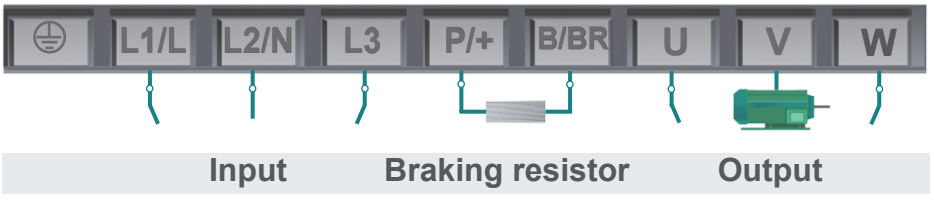
Power terminals sketch of inverter with 1-phase 230V 0.2~1.5kW (frame size V1).



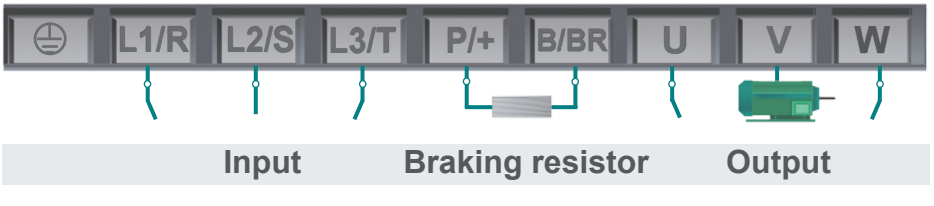
Power terminals sketch of inverter with 3-phase 230V/400V 0.2~1.5kW (frame size V1).



Power terminals sketch of inverter with 1-phase 110V 0.4~0.75kw, and 1-phase 230V 0.2~3.0kW, 3-phase 230V 0.2~3.0kW, and 3-phase 400V 0.4~4.0kW, 3-phase 575V 0.75~3kW, (frame size V2).

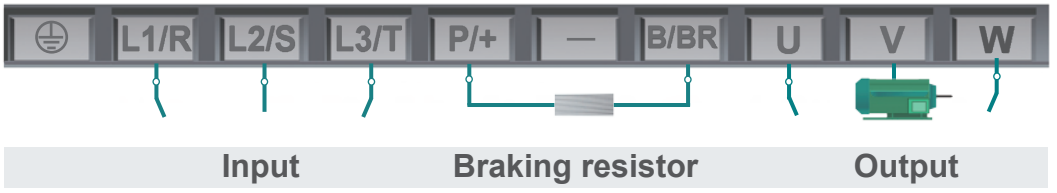


Power terminals sketch of inverter with 1-phase 110V 1.5~2.2kw, 1-phase 230V 4.0~5.5kw 3-phase 230V 4.0~7.5kw, 3-phase 400V 5.5~15kW, and 3-phase 575V 3~7.5kW.

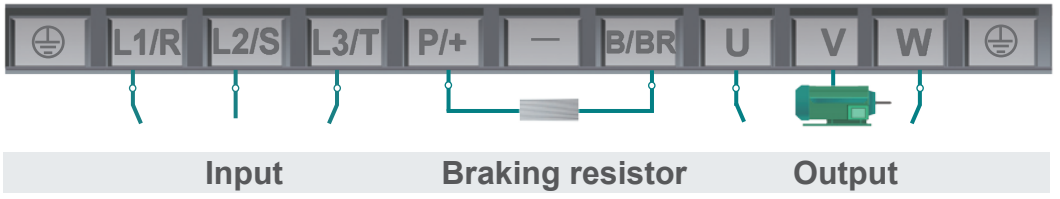


Connection

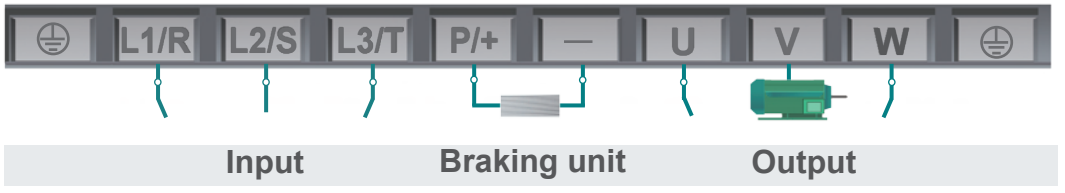
Power terminals sketch of inverter with 1-phase 230V 7.5~15kW, 3-phase 230V 11~22kW, 3-phase 400V 18.5~45kW and 3-phase 575V 11kW~18.5kW.



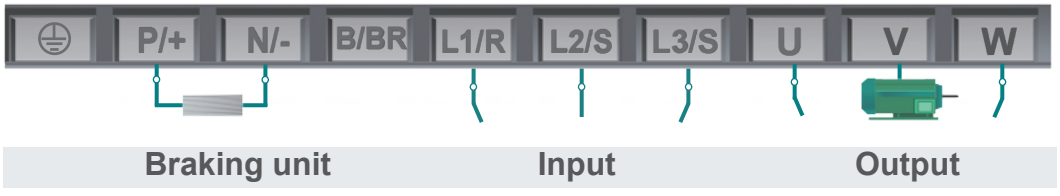
Power terminals sketch of inverter with 3-phase 230V 30~75kW, 3-phase 400V 55~200kW.



Power terminals sketch of inverter with 3-phase 400V 200kW~500kW, 3-phase 575V 185kW~280kW.

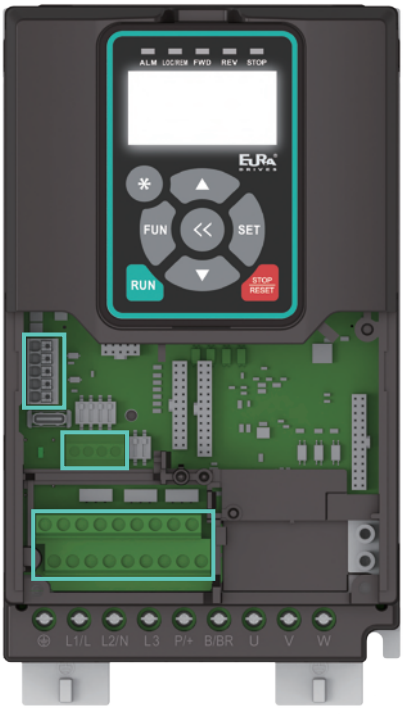


Power terminals sketch of inverter with 3-phase 575V 22kW~160kW.



Note:built - in DC choke is available in 3-phase 400V 55kW and above, 3-phase 575V 45kW and above.

Functions of Control Terminals



Terminal	Type	Description	Function	
DO1	Output signal	Multifunctional output terminal 1	When the token function is valid, the value between this terminal and CM terminal is 0V; when it is invalid, the value is 24V. When DO1 is as high-frequency output terminal, the max output frequency is 100KHz and please do not connect to intermediate relay.	The functions of output terminals shall be defined per manufacturer's value. Their initial state may be changed through changing function codes.
TA TB TC		Relay contact	TC is a common point, TB-TC are normally closed contacts, TA-TC are normally open contacts. The contact capacity is 10A/125VAC, NO/NC 3A 250VAC/30VDC.	
AO1	Output signal	Voltage/current output	It is connected with frequency meter, speedometer or ammeter externally, and their minus pole is connected with GND. See F423～F426 for details	
AO2		Current output	It is connected with ammeter externally, and its minus pole is connected with GND. See F427～F430 for details	
10V	Analog power supply	Self-power supply	Internal 10V self-power supply of the inverter provides power to the inverter.When used externally, it can only be used as the power supply for voltage control signal, with current restricted below 20mA.	
AI1	Input Signal	Voltage/current analog input	At analog speed control, the voltage or current signal is input to these terminals. The range of voltage is 0~5V, 0~10V or -10V-10V, and the current is 0～20mA, the input resistor is 50Ohm, and grounding: GND. If the AI1 input is 4～20mA, please set F400=2. If the AI2 input is 4～20mA, please set F406=2. The voltage or current signal can be chosen by coding switch. See parameter F438&F439. The default setting of AI1 is 0~10V, and the default of AI2 is 0~20mA.	
AI2		Voltage/current analog input		

rminal	Type	Description	Function	
GND		Grounding of self-power supply	Ground terminal of external control signal (voltage control signal or current source control signal) is also the grounding of 10V power supply of this inverter.	
24V	Power supply	Control power supply	Power: 24±1.5V, grounding is CM; current is restricted below 200mA for external use.	
DI1	Digital input control terminal	Jogging terminal	When this terminal is valid, the inverter will have jogging running. The jogging function of this terminal is valid under both at stopped and running status. This terminal can also be used as high-speed pulse input port. The max frequency is 100KHz.	The functions of input terminals shall be defined per manufacturer's value. Other functions can also be defined by changing function codes.
DI2		External Emergency Stop	When this terminal is valid, "ESP" malfunction signal will be displayed.	
DI3		"FWD" Terminal	When this terminal is valid, inverter will run forward.	
DI4		"REV" Terminal	When this terminal is valid, inverter will run reversely.	
DI5		Reset terminal	Make this terminal valid under fault status to reset the inverter.	
DI6		Coast to stop	Make this terminal valid during running can realize coast to stop.	
CM	Common port	Grounding of control power supply	The grounding of 24V power supply and other control signals.	
GND	485 communication terminals	Grounding of differential signal	Grounding of differential signal	
+5V		Power of differential signal	Power of differential signal	
A+		Positive polarity of differential signal	Standard: TIA/EIA-485(RS-485) Communication protocol: Modbus Communication rate: 2400/4800/9600/19200/38400/57600/115200bps	
B-		Negative polarity of differential signal		
SR1	STO	STO signal 1	STO safety recommendation input: 2-channel connection 1	
SR2		STO signal 2	STO safety recommendation input: 2-channel connection 2	
24V		STO power	24V control system power supply	
CM		STO grounding	24V control system power supply reference potential: STO reference potential	
FB		STO feedback	STO feedback output	

Product List of E3100

Model	Applicable Motor(kW/HP) G type	Applicable Motor(kW/HP) P type	Rated Current Output(A) G type	Rated Current Output(A) P type	Structure Code	Weight(kg)	Cooling Mode	Remarks
E3100-0004S1	0.4/0.5	--	2.5	--	V2	1.6	Self-cooling	1-phase 110V plastic
E3100-0007S1	0.75/1	--	4.5	--	V2	1.6	Air-cooling	
E3100-0015S1	1.5/2	--	7.0	--	V4	2.6	Air-cooling	
E3100-0022S1	2.2/3	--	10.0	--	V4	2.8	Air-cooling	

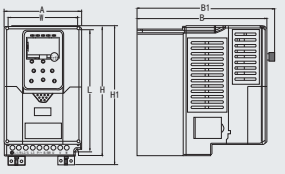
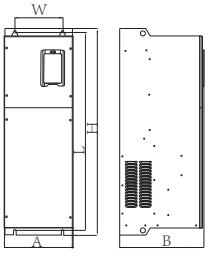
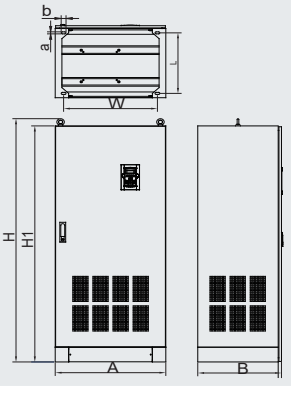
Product List of E3100

Model	Applicable Motor(kW/HP) G type	Applicable Motor(kW/HP) P type	Rated Current Output(A) G type	Rated Current Output(A) P type	Structure Code	Weight(kg)	Cooling Mode	Remarks
E3100-0002S2	0.2/0.3	--	1.5	--	V1	1.2	Self-cooling	1-phase 230V plastic housing
E3100-0004S2	0.4/0.5	--	2.5	--	V1	1.2	Self-cooling	
E3100-0007S2	0.75/1	--	4.5	--	V1	1.3	Air-cooling	
E3100-0015S2	1.5/2	--	7.0	--	V1	1.3	Air-cooling	
E3100-0004S2	0.4/0.5	--	2.5	--	V2	1.2	Self-cooling	
E3100-0007S2	0.75/1	--	4.5	--	V2	1.3	Self-cooling	
E3100-0015S2	1.5/2	--	7.0	--	V2	1.3	Air-cooling	
E3100-0022S2	2.2/3	--	10.0	--	V2	2.0	Air-cooling	
E3100-0030S2	3.0/4.0	--	12	--	V2	2.1	Air-cooling	1-phase 230V plastic housing
E3100-0040S2	4.0/5.5	--	17	--	V5	4.6	Air-cooling	
E3100-0055S2	5.5/7.5	--	21	--	V5	4.8	Self-cooling	
E3100-0075S2	7.5/10	--	30	--	V6	8.1	Self-cooling	
E3100-0110S2	11/15	--	40	--	V6	8.8	Air-cooling	
E3100-0150S2	15/20	--	55	--	V7	14.8	Air-cooling	
E3100-0002T2	0.2/0.3	--	1.5	--	V1	1.2	Self-cooling	3-phase 230V Plastic housing
E3100-0004T2	0.4/0.5	--	2.5	--	V1	1.3	Air-cooling	
E3100-0007T2	0.75/1	--	4.5	--	V1	1.3	Air-cooling	
E3100-0015G/0022PT2	1.5/2	2.2/3	7	10	V1	1.3	Air-cooling	
E3100-0004T2	0.4/0.5	--	2.5	--	V2	1.5	Self-cooling	
E3100-0007T2	0.75/1	--	4.5	--	V2	1.5	Self-cooling	
E3100-0015G/0022PT2	1.5/2	2.2/3	7	10	V2	2.0	Air-cooling	
E3100-0022G/0030PT2	2.2/3	3.0/4	10	12	V2	2.0	Air-cooling	
E3100-0030T2	3.0/4	--	12	--	V2	2.1	Air-cooling	
E3100-0040T2	4.0/5.5	--	17	--	V4	2.4	Self-cooling	
E3100-0055T2	5.5/7.5	--	21	--	V5	3.4	Air-cooling	
E3100-0075T2	7.5/10	--	30	--	V5	5.0	Air-cooling	
E3100-0110T2	11/15	--	40	--	V6	6.8	Self-cooling	
E3100-0150T2	15/20	--	55	--	V6	8.8	Self-cooling	
E3100-0185T2	18.5/25	--	66	--	V6	9.0	Air-cooling	
E3100-0220T2	22/30	--	76	--	V7	15	Air-cooling	
E3100-0300T2	30/40	--	104	--	L51	34	Air-cooling	3-phase 230V Metal housing
E3100-0370T2	37/50	--	130	--	L51	34	Air-cooling	
E3100-0450T2	45/60	--	155	--	L51	35	Self-cooling	
E3100-0550T2	55/75	--	190	--	L61	51	Self-cooling	
E3100-0750T2	75/100	--	260	--	L61	54	Air-cooling	
E3100-0002T3	0.2/0.3	--	0.6	--	V1	1.2	Self-cooling	3-phase 380~480V plastic housing
E3100-0004T3	0.4/0.5	--	1.2	--	V1	1.3	Self-cooling	
E3100-0007T3	0.75/1	--	2.0	--	V1	1.3	Self-cooling	
E3100-0015G/0022PT3	1.5/2	2.2/3	4.0	6.5	V1	1.3	Air-cooling	
E3100-0004T3	0.4/0.5	--	1.2	--	V2	1.8	Self-cooling	
E3100-0007T3	0.75/1	--	2.0	--	V2	1.9	Self-cooling	

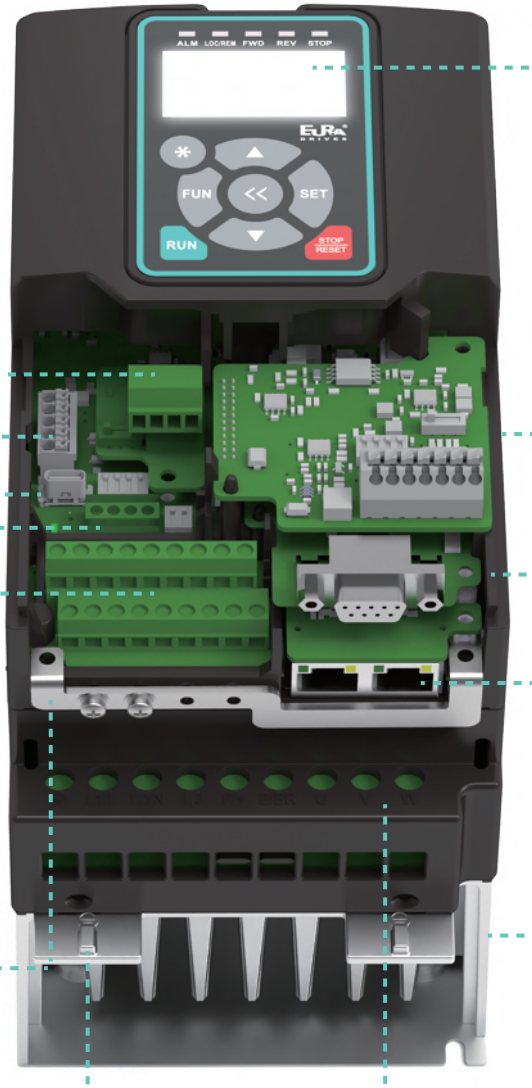
Model	Applicable Motor(kW/HP) G type	Applicable Motor(kW/HP) P type	Rated Current Output(A) G type	Rated Current Output(A) P type	Structure Code	Weight(kg)	Cooling Mode	Remarks
E3100-0015G/0022PT3	1.5/2	2.2/3	4.0	6.5	V2	2.0	Air-cooling	3-phase 380~480V plastic housing
E3100-0022G/0030PT3	2.2/3	3.0/4	6.5	7.6	V2	2.0	Air-cooling	
E3100-0030G/0040PT3	3.0/4	4.0/5.5	7.6	9.0	V2	2.0	Air-cooling	
E3100-0040G/0055PT3	4.0/5.5	5.5/7.5	9.0	12.0	V2	2.1	Air-cooling	
E3100-0055G/0075PT3	5.5/7.5	7.5/10	12.0	17.0	V4	3.2	Air-cooling	
E3100-0075G/0110PT3	7.5/10	11/15	17.0	23.0	V4	3.5	Air-cooling	
E3100-0110G/0150PT3	11/15	15/20	23.0	32.0	V5	4.9	Air-cooling	
E3100-0150G/0185PT3	15/20	18.5/25	32.0	38.0	V5	5.0	Air-cooling	
E3100-0185G/0220PT3	18.5/25	22/30	38.0	44.0	V6	8.1	Air-cooling	
E3100-0220G/0300PT3	22/30	30/40	44.0	60	V6	8.3	Air-cooling	
E3100-0300G/0370PT3	30/40	37/50	60	75	V6	9.0	Air-cooling	
E3100-0370G/0450PT3	37/50	45/60	75	90	V7	15.3	Air-cooling	
E3100-0450G/0550PT3	45/60	55/75	90	110	V7	15.3	Air-cooling	
E3100-0550G/0750PT3	55/75	75/100	110	150	L51	35	Air-cooling	33-phase 380~480V metal housing
E3100-0750G/0900PT3	75/100	90/120	150	180	L51	36	Air-cooling	
E3100-0900G/1100PT3	90/120	110/150	180	220	L61	50	Air-cooling	
E3100-1100G/1320PT3	110/150	132/175	220	265	L61	52	Air-cooling	
E3100-1320T3	132/180	--	265	--	L61	54	Air-cooling	
E3100-1600G/1850PT3	160/200	185/250	320	360	L7	83	Air-cooling	
E3100-1850G/2000PT3	185/250	200/280	360	380	L8	100	Air-cooling	
E3100-2000G/2200PT3	200/280	220/300	400	440	L9	135	Air-cooling	
E3100-2200G/2500PT3	220/300	250/350	440	480	L9	158	Air-cooling	
E3100-2500G/2800PT3	250/350	280/400	480	530	LA	163	Air-cooling	
E3100-2800G/3150PT3	280/400	315/450	530	585	LA	193	Air-cooling	
E3100-3150G/3550PT3	315/450	355/500	585	650	LB0	204	Air-cooling	
E3100-3550G/4000PT3	355/500	400/550	650	725	LB0	214	Air-cooling	
E3100-4000G/4500PT3	400/550	450/600	725	820	LB	225	Air-cooling	
E3100-4500G/5000PT3	450/600	500/670	820	900	LB	248	Air-cooling	
E3100-5000T3	500/670	--	900	--	LB	258	Air-cooling	
E3100-0007T5	0.75/1	--	1.7	--	V2	2.2	Air-cooling	3-phase 575V plastic housing
E3100-0015T5	1.5/2	--	3.5	--	V2	2.2	Air-cooling	
E3100-0022T5	2.2/3	--	4.5	--	V2	2.2	Air-cooling	
E3100-0030T5	3.0/4	--	5.5	--	V4	3.8	Air-cooling	
E3100-0040T5	4.0/5.5	--	7.5	--	V4	3.8	Air-cooling	
E3100-0055T5	5.5/7.5	--	10	--	V4	3.8	Air-cooling	
E3100-0075T5	7.5/10	--	13.5	--	V4	3.8	Air-cooling	
E3100-0110T5	11/15	--	19	--	V6	8.8	Air-cooling	
E3100-0150T5	15/20	--	23	--	V6	8.8	Air-cooling	
E3100-0185T5	18.5/25	--	27	--	V6	8.8	Air-cooling	
E3100-0220T5	22/30	--	34	--	C4B	22.7	Air-cooling	
E3100-0300T5	30/40	--	41	--	C4B	22.7	Air-cooling	
E3100-0370T5	37/50	--	52	--	C4B	22.7	Air-cooling	
E3100-0450T5	45/60	--	62	--	C51	35	Air-cooling	

Model	Applicable Motor(kW/HP) G type	Applicable Motor(kW/HP) P type	Rated Current Output(A) G type	Rated Current Output(A) P type	Structure Code	Weight(kg)	Cooling Mode	Remarks
E3100-0550T5	55/75	--	86	--	C51	36	Air-cooling	3-phase 575V metal housing
E3100-0750T5	75/100	--	100	--	C61	50	Air-cooling	
E3100-0900T5	90/120	--	120	--	C61	52	Air-cooling	
E3100-1100T5	110/150	--	150	--	C61	54	Air-cooling	
E3100-1320T5	132/175	--	175	--	C7	83	Air-cooling	
E3100-1600T5	160/200	--	200	--	C7	85	Air-cooling	
E3100-1850T5	185/250	--	245	--	D1	168	Air-cooling	3-phase 575V metal cabinet
E3100-2000T5	200/275	--	270	--	D1	170	Air-cooling	
E3100-2200T5	220/300	--	310	--	D1	174	Air-cooling	
E3100-2500T5	250/350	--	350	--	D3	370	Air-cooling	
E3100-2800T5	280/400	--	380	--	D3	380	Air-cooling	

Structure List

Structure Code	External Dimension [A×B(B1) ×H(H1)] note1	Mounting Size(W×L)	Mounting Bolt	Remarks	Plastic Profile
V1	83×159(170)×138(151)	70×128	M4	Plastic Housing	
V2	106×188(199)×180×(195)	94×170	M4		
V4	142×189(200)×238(250)	126×225	M5		
V5	161×197(208)×265(280)	146×255	M5		
V6	210×228(239)×340(358)	194×330	M5		
V7	265×248(259)×435×465)	235×412	M6		
L51	270×317×847	178×816	M8	Metal Housing	
L61	290×354×967	200×933	M10		
L7	341×366×1084	231×1052	M10		
L8	341×366×1124	231×1092	M10		
L9	405×436.5×1315	280×1283	M10		
LA	435×455×1430	435×1430	M10		
LB0	481×458×1553	335×1518	M10		
LB	612×478×1590	1557×439	M10		
C4B	315×250×555	274×539	M6		
C51	360×265×630	320×605	M8		
C61	410×300×765	370×740	M10		
C7	516×326×765	360×740	M10		
D1	600×535×1650	500×450	M12	Metal cabinet	
D3	770×580×1850	668×510	M12		

Overview



Keypad
1-line LED keypad as standard
1-line LED keypad with potentiometer, 4-line LCD keypad, 4-line LCD keypad(NEMA 4X) as option.

CAN terminal
Internal CAN commnuication for master-slave function

Safety torque Off
Independently certified STO to SIL2

I/O expansion card
Please refer to page 14

Type C port
Flashing firmware or connecting to PC for PC software

Encoder card
Please refer to page 13

RS485 terminal
For modbus commnuication or connecting to copy stick

Fieldbus card
Please refer to page 14~15

Control terminals

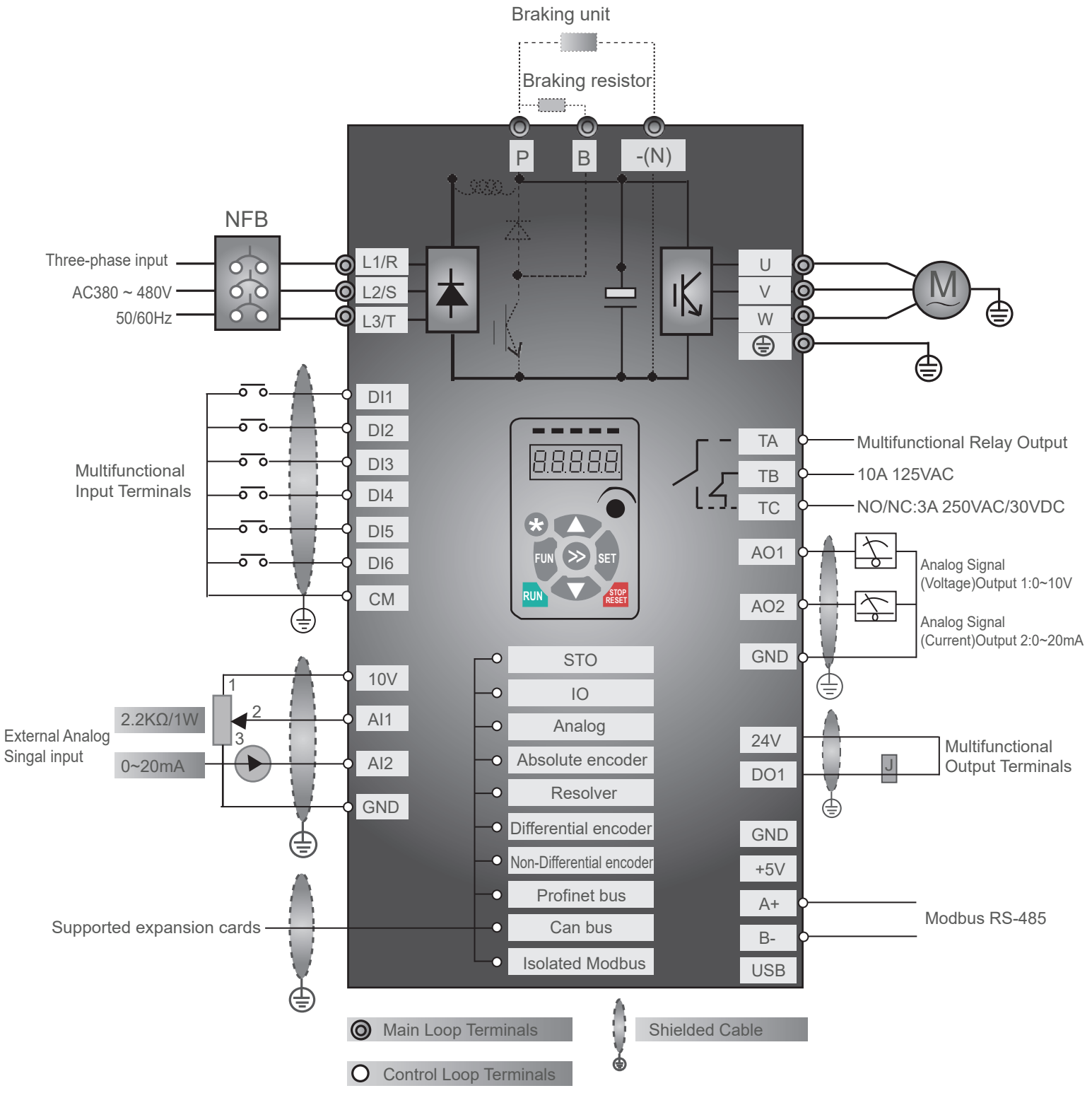
Grounding bar
Grounding bar for shielding layer of control cables

Heatsink

Grounding bar
additional grounding bar for shielding layer of power cables

Power terminals

Wiring Diagram

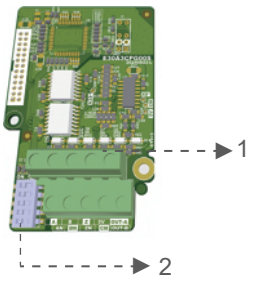


1. Please only connect power terminals L1/R and L2/S with power grid for single-phase inverters.
2. 485 communication apples standard MODBUS communication protocol. Communication port is on the right side for 1.5kW and below inverter. The sequence (1.5kW and below) from top to bottom is B-, A+, 5V power, and GND. For 2.2kW and above, the sequency from left to right is GND, 5V, A+, B-.
3. The contact capacity for multifunctional reply is 3A 250VAC/30VDC.

Expansion Card

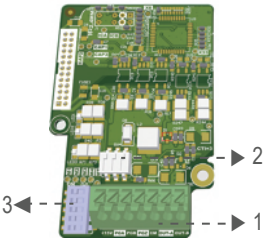
E30CPG01:

Model					
Name	Model	Function			
PG card	E30CPG01	Differential encoder card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
5V, CM	Power	---	About 300ohm	5V	300mA
A, AN B, BN	Differential encoder signal	0~200KHz	---	±5V	---
1.Terminal 2.Frequency - division DIP switch（not supported）					



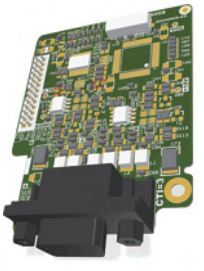
E30FPG01:

Model					
Name	Model	Function			
PG card	E30FPG01	Non-Differential encoder card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
+15V, CM	Power	---	About 300ohm	15±1.5V	300mA
PGA, PGB	Non-differential encoder signal	0~80KHz	---	0~15V	---
1.Terminal 2.Frequency - division DIP switch（not supported） 3.Collector Open Circuit and Push-Pull Encoder Selection Switch					



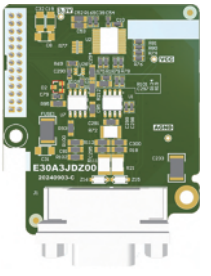
E30XB01\ E30XB02:

Model					
Name	Model	Function			
PG card	E30XB01\ E30XB02	Resolver card with 0.5 or 0.286 transformation ratio			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
RE1、RE2	Resolver excitation signal	10KHz	---	7V	---
COS+\COS-	Differential cosine signal	---	---	Based on the transformation ratio	---
SIN+\SIN-	Differential Sine Signal	---	---	Based on the transformation ratio	---
DB9 port					



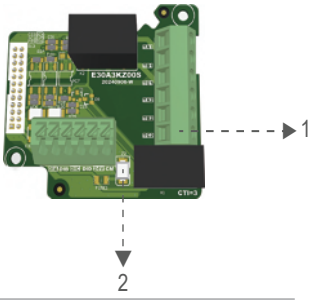
E30JDZ01:

Model					
Name	Model	Function			
PG card	E30JDZ01	Absolute encoder card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
VCC	Power	---	---	5V	---
PS、/PS	Differential Signal				---
GND	Ground	---	---	---	---
DB9 port					



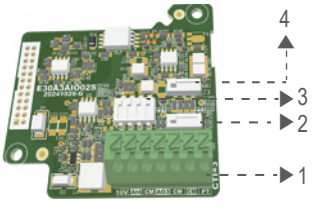
E30DIO01:

Model					
Name	Model	Function			
IO card	E30DIO01	DI,DO, relay card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
DIA-DID	4 DI input	---	---	0-24V	---
TA1\TB1\TC1 TA2\TB2\TC2	2 relay output	---	---		3A/250VAC 3A/30VDC
+24V,CM	DIA-DID power	---		24V±2V	50mA
1.relay output	2. 4 Digit input				



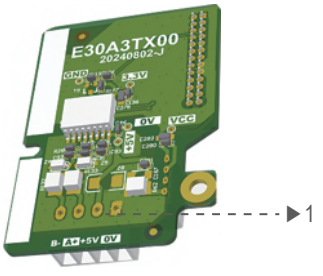
E30AIO01:

Model					
Name	Model	Function			
IO card	E30AIO01	AI, AO, PT100 and PT1000 card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
AI4	1 AI	---	About 300ohm	5V	300mA
AO3	1 AO	---	---	±5V	---
10V,CM	AI4\AO3 Power	---	About 300ohm	5V	300mA
PT,CM	PT100\PT1000 input	---	PT100:100Ω PT1000:1000Ω （0℃）	---	---
1.Terminals include one AI, one AO and one PT			2.J2 PT100/PT1000 selection switch		
3.SW3 Analog input voltage - current selection DIP Switch			4.Analog output voltage - current selection switch		



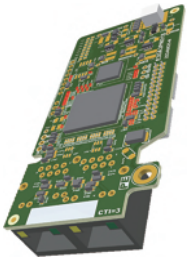
E30MOD01:

Model					
Name	Model	Function			
Communication card	E30MOD01	Isolated RS-485 expansion card			
Specification					
	Function	Response speed	Output resistance	Voltage range	Output current
5V	Power	---	---	5V	---
A+\B-	Differential Signal	---	---		---
0V	Ground	---	---		---
1.Pluggable terminal					



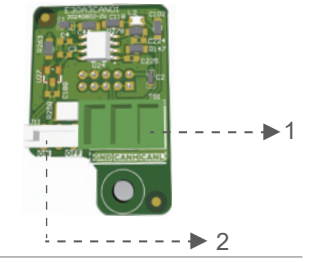
E30PN01:

Model		
Name	Model	Function
Profinet Communication card	E30PN01	Profinet expansion card
RJ45 port for Profinet		



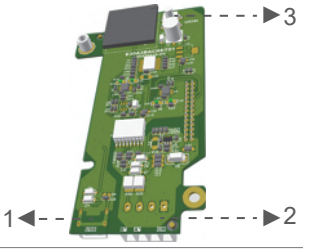
E30CAN01:

Model		
Name	Model	Function
CAN communication	E30CAN01	CAN expansion card
1.Terminal 2.Terminal Resistor Selection Switch		



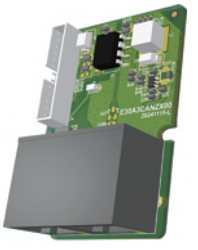
E30BACNET01:

Model		
Name	Model	Function
BACnet communication	E30BACNET01	BACnet expansion card
1.USB 2.BACnet terminal 3.Reset button		



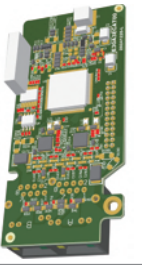
E30CANopen01:

Model		
Name	Model	Function
CANopen Communication card	E30CANopen01	CANopen expansion card
RJ45 port for CANopen		



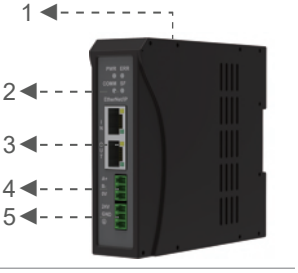
E30ECAT01:

Model		
Name	Model	Function
EtherCAT Communication card	E30ECAT01	EtherCAT expansion card
RJ45 port for EtherCAT		



EIB-EISSE01 EthernetIP:

Model		
Name	Model	Function
Ethernet Communication card	EIB-EISSE01	External Ethernet IP module
1.Cover 2.Indicator 3.RJ45 port 4.Communication port 5.Power port		



Local Keypad

AV03



LED English keypad without potentiometer

AV04



LED English keypad with potentiometer

AV13



LCD English keypad

AL03



LED English keypad without potentiometer

AL04



LED English keypad with potentiometer

AL13



LCD English keypad

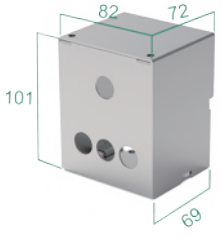
AD02



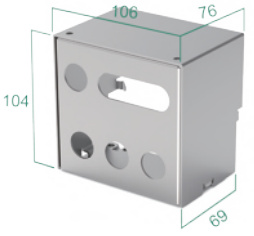
LCD English keypad (IP66 / NEMA4X)

Dimension of Terminal Box / NEMA1 kit

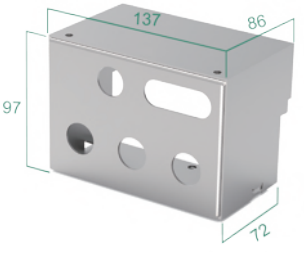
V1 terminal box



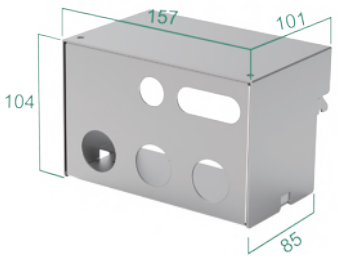
V2 terminal box



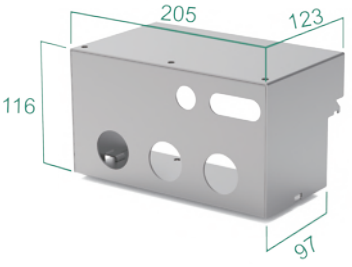
V4 terminal box



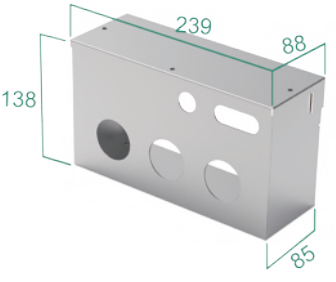
V5 terminal box



V6 terminal box



V6 terminal box



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