



ENGLISH

www.euradrives.kr

E600

FREQUENCY INVERTER

0.2kW - 5.5kW / 0.3HP- 7.5HP



E600^{0.2 kW - 5.5 kW / 0.3HP - 7.5HP}

FREQUENCY INVERTER

HIGHLIGHTS

- Best performance/cost ratio, without compromise in reliability and quality
- Compact design, easy to integrate in multiple environments: DIN rail mounting, contactor-style I/O
- Easy to setup: Simple set of optimized parameters for all basic functions and applications
- PID and HVAC functions - safety integrated - MODBUS - open for networking
- Internal EMC filter as standard: Ready for CE market
- Economical mass production on highly automated and dedicated SMT lines
- General purpose drive - made for the worldwide market (CE/UL)
- Approved and certified by American independent bodies



Naming rule

Model naming rule

E600 – 0007 S2

Input power type:
S2:1-phase 220~240V
T3:3-phase 380~480V

Motor power

Mark	0007	0015	
Motor power (kW)	0.75	1.5	

Product series

Function naming rule

Q2 U5 F2 AG01 B1 R3

Filter	R3	EMC C3 level filter
Braking type	B1	Dynamic braking
Keypad panel	AG03	AG LED keypad in English
Communication	F2	Terminal interface is adopted for Modbus
Certificate	U5	UL+CE
Structure code	Q2	Q2 structure

Remote keypad

Keypad code	Contents
A623	A6 English LED without potentiometer
A624	A6 English LED without potentiometer
AA23	AA English LED without potentiometer
AD21	AD English LCD1 without potentiometer

Communication

Communication code	Contents
F2	Modbus

Certificate

Certificate code	Contents
U1	CE
U5	UL+CE
U8	CE+STO
U9	CE+UL+STO

TECHNICAL DATA

Power supply	Rated voltage	3-phase 380~460V +/- 15% - 1-phase 200~240V +/- 15%
	Input frequency	44~67 Hz
	EMC filter	C3 level
Output	Output voltage	0.....V-input
	Output frequency	0.5~590Hz
	Resolution of output frequency	0.01 Hz
	Overload capability	150% - 60 sec. / 10 Min
Control-Mode	PWM control-modes	V/Hz - Mode
	PWM frequency	0.8~6 kHz
	V/Hz characteristic	Linear, quadratic, and user-programmable curve
	Starting torque	100% rated torque at 1 Hz
	DC-Brake	Freq. threshold, duration and intensity programmable – DC injection
	Brake chopper	Integrated chopper transistor
Display	7 Segment LED display -4- digit	For programming and visualization of different operating parameters
I/O Channels, control functions	Inverter control - Start/Stop	To configure: terminals / operation panel / serial link
	Digital control inputs	4 digital inputs (HIGH/LOW configurable)
	Speed reference signal	Potentiometer, analogue input (terminals 0...10V, (0)4~20 mA), Operating panel keys ,serial link
	Reference analogue channels	1 Analogue channels 0~10V, (0)4~20 mA
	Analogue outputs	1 analogue output channel programmable in gain, different functions to assign (0~10V)
	Digital outputs	1 digital output (OC, different functions to assign)
	Relays output	1 switchover contact 3 A 230 V (programmable for different functions)
	Interface	Serial link (MODBUS – ASCII/RTU)
	Special function - control options	Jog mode, 12V / 50 mA auxiliary power supply on terminals PI-control Fixed frequency control, programmable cycling frequency sequence AUTORESET/RESTART function
Protection functions, incl. fault memory	Electrical protection functions	Overvoltage, Undervoltage Overcurrent, Overload, Motor-Overload, Output-short Analogue reference interruption
	Thermal protection functions	Heatsink overtemperature
Options	Operating panel	Remote keypad
	Brake resistors	Braking resistors for heavy duty operation
	Parameter copy stick	USB Stick with parameter duplication function
	PC-Link Software (via MODBUS)	Special tool for programming, control and diagnostic (parameter set memory)
	Safety	STO (Q2 only)
Environmental conditions	Protection	IP20/NEMA 1
	Operating temperature	-10 ~ +40 °C
	Humidity	Max. 90 % not condensing, no corrosion
	Elavation	1000 m - 1% derating / 100m above
	Vibration	Max 0.5 g
Power range	V/Hz	230V: 0.2~2.2 kW 400V: 0.2~5.5 kW

Functions of Control Terminals

Termin	Type		Description			Function							
DO1	Output signal		Multifunctional output terminal 1			When the token function is valid, the value between this terminal and CM is 0V; when the inverter is stopped, the value is 24V.					The functions of output terminals shall be defined per manufacturer's value. Their initial state may be changed through changing function codes.		
TA			Relay contact			TC is a common point, TB-TC are normally closed contacts, TA-TC are normally open contacts. The contact capacity is 3A 250VAC/30VDC, 10A/125VAC.							
TB													
TC													
10V	Analog power supply		Self contained power supply			Internal 10V self-contained power supply. When used externally, it can only be used as the power supply for voltage control signals with restricted current below 20mA.							
AI1	Input Signal		Voltage /current analog input port			When analog speed control is adopted, the voltage or current signal is input through this terminal. The range of voltage input is 0~5V or 0~10V ,and the current input is 0 ~20mA, the input resistor is 50Ω, and grounding: GND. If the input is 4~20mA, it can be realized by setting F400=2. The voltage or current signal can be chosen by coding switch. The default setting of AI1 is 0~10V.							
GND	Power supply		Self-contained Power supply Ground			Ground terminal of external control signal (voltage control signal or current source control signal) is also the ground of 10V power supply of this inverter.							
24V			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.					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.							
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							
B-			Negative polarity of Differential signal			Communication rate: 1200/2400/4800/9600/19200/38400/57600bps							
TA	TB	TC	DO1	24V	CM	DI1	DI2	DI3	DI4	10V	AI1	GND	AO1
GND	+5V	A+	B1										
SR1	SR2	24V	FB	CM									

SR1, SR2, 24V, FB, CM is optional for Q2 structure for STO function.

FRAMESIZE



Model	Motor Power (kW/HP)	Rated Current Output (A)	Structure Code	Weight (kg)	Cooling Mode
E600-0002S2Q1U5F2AG03B1R3	0.2/0.3	1.5	Q1	0.45	Self-cooling
E600-0004S2Q1U5F2AG03B1R3	0.4/0.5	2.5	Q1	0.45	Self-cooling
E600-0007S2Q1U5F2AG03B1R3	0.75/1.0	4.5	Q1	0.48	Air-Cooling
E600-0015S2Q1U5F2AG03B1R3	1.5/2.0	7.0	Q1	0.49	Air-Cooling
E600-0002S2Q2U5F2AG03B1R3	0.2/0.3	1.5	Q2	0.45	Self-cooling
E600-0004S2Q2U5F2AG03B1R3	0.4/0.5	2.5	Q2	0.45	Self-cooling
E600-0007S2Q2U5F2AG03B1R3	0.75/1.0	4.5	Q2	0.48	Air-Cooling
E600-0015S2Q2U5F2AG03B1R3	1.5/2.0	7.0	Q2	0.49	Air-Cooling
E600-0022S2Q2U5F2AG03B1R3	2.2/3.0	10	Q2	0.75	Air-Cooling
E600-0002T3Q1U5F2AG03B1R5	0.2/0.3	0.6	Q1	0.45	Self-cooling
E600-0004T3Q1U5F2AG03B1R5	0.4/0.5	12	Q1	0.8	Self-cooling
E600-0007T3Q1U5F2AG03B1R5	0.75/1.0	2.0	Q1	0.82	Air-Cooling
E600-0015T3Q1U5F2AG03B1R5	1.5/2.0	4.0	Q1	0.85	Air-Cooling
E600-0002T3Q2U5F2AG03B1R3	0.2/0.3	0.6	Q2	0.8	Self-cooling
E600-0004T3Q2U5F2AG03B1R3	0.4/0.5	1.2	Q2	0.8	Self-cooling
E600-0007T3Q2U5F2AG03B1R3	0.75/1.0	2.0	Q2	0.82	Air-Cooling
E600-0015T3Q2U5F2AG03B1R3	1.5/2.0	4.0	Q2	0.85	Air-Cooling
E600-0022T3Q2U5F2AG03B1R3	2.2/3.0	6.5	Q2	1.3	Air-Cooling
E600-0030T3Q2U5F2AG03B1R3	3.0/4.0	7.6	Q2	1.3	Air-Cooling
E600-0040T3Q2U5F2AG03B1R3	4.0/5.5	9.0	Q2	1.45	Air-Cooling
E600-0055T3Q2U5F2AG03B1R3	5.5/7.5	12	Q2	1.45	Air-Cooling



LCD REMOTE
KEYPAD IP66

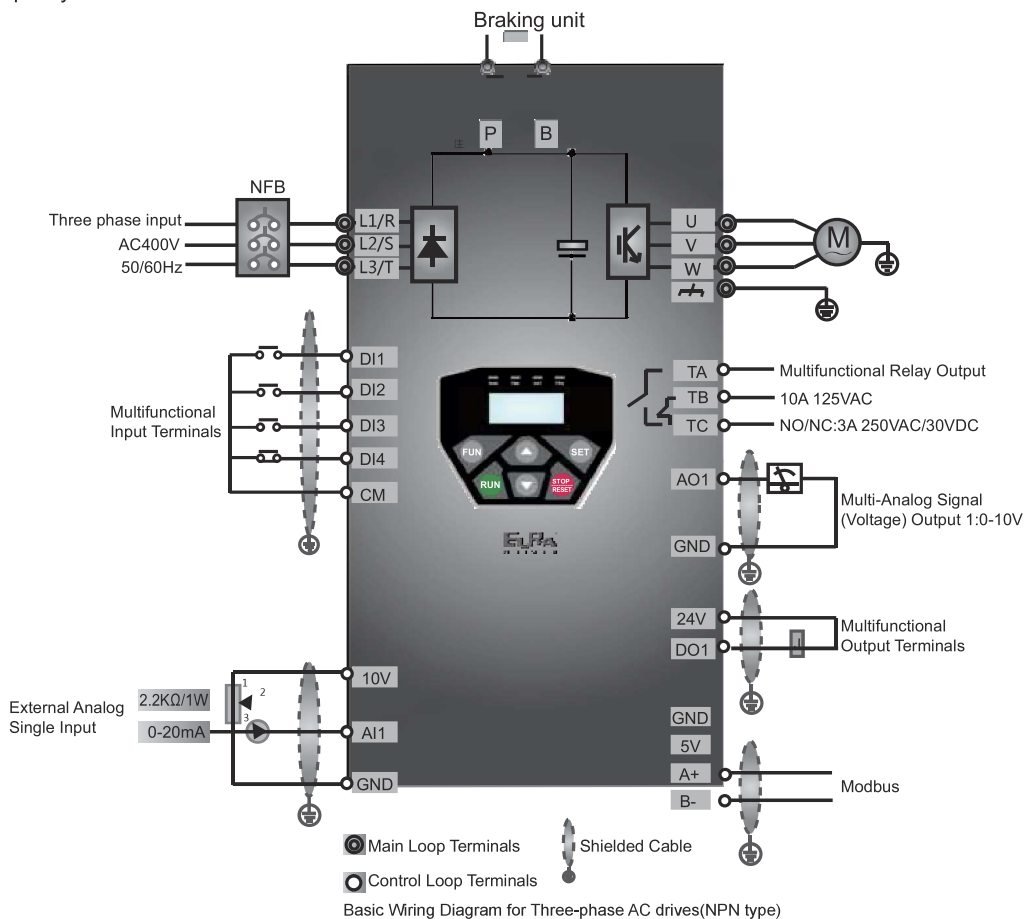


PARAMETER
COPY STICK

Wiring diagram

Note:

1. Connect power terminals L1/R and L2/S with power grid for single-phase inverters.
2. 485 communication port has built-in standard MODBUS communication protocol. Communication port is on the right side of inverter.
3. The contact capacity is 10A/125VAC. NO/NC: 3A 250VAC/30VDC.





SERVO DRIVE / MOTOR



Servo Drive:

- Frequency response: Up to 3.2kHz
- Pulse frequency: Max 4MHz
- 23-bit absolute encoder, 8.38M pulse per round
- Dual-core processor, smooth motor control, no vibration at stop
- Built-in PLC and electronic CAM function

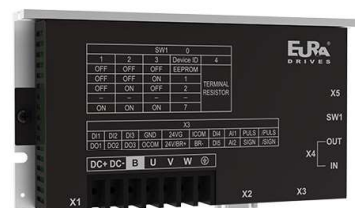
Servo Motor:

- Incremental encoder, Absolute encoder, Resolver
- Power: 0.2kW – 75kW
- Torque rating: 0.64N·m – 321N·m
- Speed: 1000r/min, 1500r/min, 1700r/min, 2000r/min, 2500r/min, 3000r/min
- High efficiency, high response, small size, low inertia, high torque

LDS10 SERIES 48V DC SERVO

- 24 ~ 60 VDC
- Small size, high stability, convenient networking
- Supports custom CAN, CANOpen, MODBUS, pulse and analog
- Built-in CANOpen bus communication debugging and monitoring of products
- Rich interface configuration, up to 5-way DI, 4-way DO, built-in braking unit and brake control

- Complete supporting host computer software to realize all-round remote
- 2-way analog input and 2-way high speed pulse input can realize precise PWM speed regulation and pulse frequency speed regulation
- Widely used in logistics storage, handling systems, sorting systems, medical equipment, and other fields that have high requirements for voltage and volume.



INVERTER 0.4kW—400kW



E600:

- Best performance/cost ratio
- Compact design, easy to integrate in your environment
- Easy setup: Simple set of optimized parameters for all basic functions and applications
- PID and HVAC functions — safety integrated — MODBUS — open for networking
- Internal EMC filter as standard
- Economical mass production on high automated and dedicated SMT lines
- General purpose drive — made for worldwide market

E2100:

- DSP-based high-tech motor control concept — ready for V/Hz, sensorless vector, CLV, PMSM control
- Intelligent autotuning functions
- Flexible inverter control, dual high resolution analog input, free mapping for all I/O channels
- Ready for all commonly used fieldbus systems
- Universal parameter-set for all kinds of industrial and residential applications
- Smart PC-tools for inverter control, parametrization and troubleshooting
- Parameter-duplication stick
- EMC filter (C3 class) integrated, optional C1 footprint filter

PUMP INVERTER 0.4kW—400kW



Overview:

- Smart pump software for all Eura AC Drives
- Cover protection degree from IP20 to IP67
- Single pump control, multi pump control and cascade control without external master controller

Protection functions:

- Leakage detection
- Dry run protection
- Filling protection

Auxiliary functions:

- Water flow detection
- Pump cleaning
- Manual/auto control
- Antirust and Antifreeze
- Time control mode
- Autotuning solar pump
- User macro





A DRIVES COMPANY

EURA DRIVES ELECTRIC CO., LTD

No. 17 Fuzhou Road, Yantai ETZD, China, 264006
Contact Person: Mr Leo Zhang
Tel: +86 535 6391102
Fax: +86 535 6395279
Email: zhangleileo@163.com, leo@euradrives.com
Website: en.euradrives.com

EURA DRIVES CANADA

7030 Woodbine Ave Suite 500, Markham
ON Canada L3R 6G2
Tel: +1 647 512 7958
Email: sales@euradrives.net
info@euradrives.eu

EURA Drives GmbH

Mühlenwag 143, 22844 Norderstedt
Telefon: +49 40 589 7950 0
Fax: +49 40 589 7950 29
info@euradrives.eu



주식회사 알케이 (RK Co., LTD)

경기도 광명시 하안로 60, 광명테크노파크
C동 510호 14322
Tel: +82 2 899 2535
Fax: +82 50 4446 2535
Email: rkcomp@naver.com
Website: euradrives.kr