Lhp®
MOTORS PUMPS
Driven by Commitment

Introducing

Lhp EURA DRIVES

AC DRIVES

V/F Control / Sensorless Vector Control

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About LHP

Established in 1981, LHP is one of the most preferred brands for electric motors in India. LHP is known for its commitment to quality, reliability, consistency and efficiency. We are known for providing cost-effective, customised solutions for challenging applications in the shortest possible time.

LHP always responds to customer expectations by introducing new products and technologies to meet the changing requirements of various industries.

Introduction of AC Drives in association with globally renowned EURA DRIVES Electric Co. Ltd. is one such step to offer our customers with one-stop-solutions for all their drive technology requirements.

With this association, LHP is in a position to offer integrated solutions to Indian industries.

About EURA

EURA DRIVES Electric Co. Ltd., established in 1992, is dedicated to research, development, manufacturing and marketing of AC Drives and Soft Starters. These VFDs and starters are available in a wide range from 0.1kW to 710kW and useful in several industries for a variety of applications.

EURA DRIVES' quality products are certified for ISO 9001, CE, CCC and preferred for their reliability and advanced technology. The company firmly believes in 'creating value for customers' and hence, continuously develops more energy-efficient products while making them economical.

The LHP-EURA DRIVES association will allow Indian industries the access to latest technology through LHP's already established sales and service network.

E1000 / E2000

E1000 Series AC Drives represent the latest technology in V/F technology. A modular design with adequate cooling ensures suitability for harsh Indian environments.

Easy to program, with adequate built-in overload capability, LHP-EURA set new benchmarks in reliability. LHP-EURA E1000 series is versatile for many standard industrial applications such as material handling, conveying, mixing and automation.

E2000 series is the latest introduction of Sensorless Vector Drives. Precise control, ability to handle wide fluctuations of input voltage, high power factor make these drives preferred by industries for simplicity and ruggedness. Manufactured in a state-of-the art plant in a controlled environment with careful selection of the best available components, LHP- Eura Drives offer reliability for the most demanding users.

Main Functions

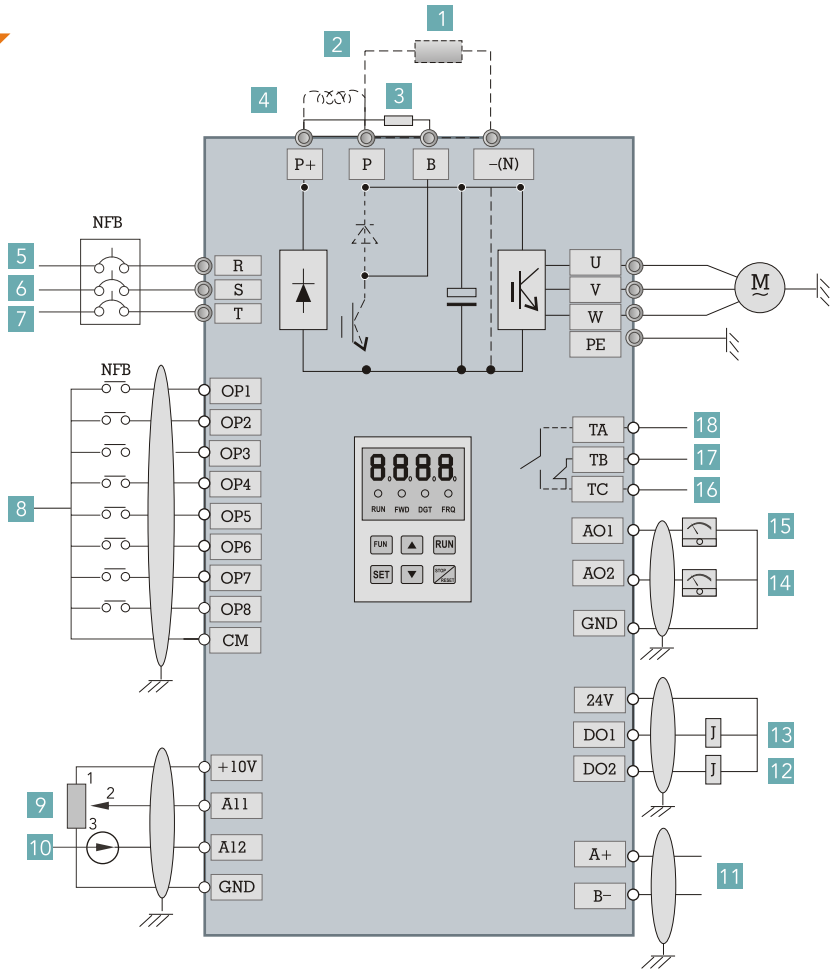
- Built-in braking unit
- Built-in EIVII filter
- Kinds of load type: Beeline type, square type, under-defined V/F curve type and auto torque compensation type
- Jogging speed control, multi-stage speed-control, external analog signal speed control and PC/PLC speed control
- Standard RS485 communication interface, PC/PLC control by MODBUS communication and several inverters can be operated at the same time
- Frequency source includes given digit, given analog voltage and given MODBUS, etc.
- With double-polarity NPN and PNP type
- 6 digital input terminals, each of which can be used as user-defined function terminals. 2 analog input terminals, one of which can be used to input voltage (0~5V, 0~10V) and the other can be used to input current (0~20 mA, 4~20 mA)
- 1 digital output terminal, 1 multifunction relay output terminal and 2 analog output terminals. One of analog terminals can be used to output voltage (0~5V, 0~10V) or current (0~20mA) and the other can be used to output current ((0~20mA or 4~20 mA)
- With the twinkling display of preset frequency, running frequency can be easily set before running
- Current stalling adjusting
- Built-in DC braking

Characteristics

- Auto torque promotion and auto slip compensation realize larger output torque at low frequency
- User-defined curve, V/F curve can be adjusted
- Lower-noise, carrier-wave frequency can be adjusted from 2kHz to 10kHz
- Control protection is immediate and reliable, which improves system stability
- Built-in filter is optional. Compatible with NPN and PNP types
- Advanced vector control technology realizes more precise control and more excellent performance. (only for E2000)
- Torque is elevated automatically, starting torque reaches 150% at MHz, and torque control precision reaches ±5% (only for E2000)
- Output frequency is 0.50~650.OHz (V/F), 0.50~200.0Hz (SVC). The highest resolution is 0.01Hz

Basic Wiring Diagram

Three phase AC drives (NPN type)



1 Braking unit
2 Choke
3 Braking resistor
4 Jumper
5 Three-phase input
6 AC 400V
7 50/60Hz
8 Multi-functional input terminals
9 External analog 2.2KΩ/1W
10 Signal input 0-20mA
11 MODBUS RS-485
12 Output terminals
13 Multi-functional
14 Multi-analog signal (current) output 2:0~20mA
15 Multi-analog signal (voltage) Output1:0~10V
16 2A 250 VAC
17 10A 125 VAC
18 Multi-functional relay output

E1000/E2000 Technical Specifications

	Items	Contents
Input	Rated Voltage Range	3-phase 400V±15%; single-phase 230V±15%
	Rated Frequency	50Hz/60Hz
Output	Rated Voltage Range	3-phase 0-400V, 3-phase 0~230V
	Frequency Range	0.50-650.0Hz (V/F), 0.50~200.0Hz (SVC)
Control Mode	Carrier Frequency	2K~10kHz
	Input Frequency Resolution	Digital setting: 0.01 Hz, analog setting: max. frequency X 0.1%
	Control Mode	E 1000: V/F control E2000: V/F control and SVC control
	Overload Capacity	150% rated current, 60 seconds.
	Torque Elevating	Auto torque promotion, Manual Torque Promotion 0.1%~30.0% (VVVF), 0.5Hz/150% (SVC)
	V/F Curve	4 kinds of modes: beeline type, square type, under-defined V/F curve and auto torque compensation.
	DC Braking	DC braking frequency: 1.0~5.0Hz, braking time: 0.0~10.0s
	Jogging Control	Jogging frequency range: min frequency~ max frequency, jogging acceleration/deceleration time: 0.1~3000.0s
	Auto Circulating Running & Multi-staqe 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
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, MODBUS control
	Running Command Channels	3 kinds of channels from keypad panel, control terminal and MODBUS
	Frequency Source	Given digit, given analog voltage, given analog current, given pulse frequency, given MODBUS, PID adjusting and stage-speed control
	Accessorial frequency Source Given digit, given analog voltage, given analog current, PID adjusting and stage-speed control	
Optional	Built-in EMI filter, built-in braking unit, tele-control panel	
Protection Function	Input out-phase, input under-voltage, DC over-voltage, over-current, over-load, current stall, over-heat, external disturbance	
Display	LED nixie tube 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 cases, steam or the salt-contented, etc.
	Environment Temperature	-10°C ~+50°C
	Environment Humidity	Below 90% (no water-bead coagulation)
	Vibration Strength	Below 0.5g (acceleration)
	Height above sea level	1000m or below
Application Motor	0.12~800 kW	

LHP EURA is brought to you by

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