Control Easy Technology Sdn. Bhd. (924757-A)
Industry Machine Vision, Motion, PLC & PC Control Automation Systems.
Education Control Training Systems.
No 28G &1, The Atmosphere, Jalan Atmosphere 5,Bandar Putra Permai,
43300 Seri Kembangan, Selangor, Malaysia.
Tel: +603-9545 2009 Fax: +603-9545 2010
E-mail: sales@controlez.com www.control-easy.com

AC Induction Motor Control & Drive Training System

EZ-PE001

Description:

This trainer is integrated Programmable Logic Controller, potentiometer, Voltmeter, Current meter, Power supply, Frequency Inverter and AC Motor. The student shall be able to interpret and study AC motor characteristics, operate interface electrical system with AC motor inverter, troubleshooting fault on electrical system from AC Drive and program the PLC, AC driver and AC motor.

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This trainer complete with:

Grid panel size 700 mm (W) X 520 mm (H) X 30 mm (D)
AC Inverter Diagram Panel with square hole size 5 mm X 5 mm
Material: Aluminum
Detachable for components with brackets
Volt meter, Current meter, potentiometer
AC motor & AC Drive
Electrical wiring
Interface connectors & switches

TECHNICAL SPECIFICATION

PROTECTION CLASS	IP 20
INPUT VOLTAGE	240V AC 50Hz
AMBIENT TEMP.	0...+60 C
DIMENSION	700 mm x 520 mm x 30 mm

AC MOTOR SPECIFICATION

MODEL	SF-JR 80M
POWER	0.75kW/1 HP
TORQUE	2.53 Nm
FULL LOAD CURRENT	3.1A
SPEED	2830 rpm

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Note:
Control Easy reserves the right to improve the above specification and design without prior notice. The training kit picture shown only for illustration purpose and subject to any change.

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Electrical wiring

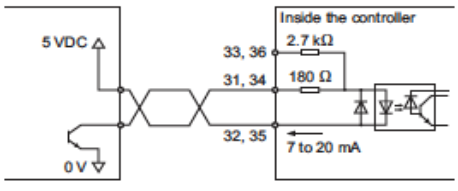
• Input signals

Pin No.	Signal name: Controller mode	Signal name: Driver mode	Description	Reference
7	START	–	Positioning start	p.27
8	ACL/CK*1		ACL: Alarm clear CK: Used to read the current position.	ACL: p.71 CK: p.36
9	FREE		Stops the excitation of the motorized actuator and releases the electromagnetic brake.	p.35
10	STOP	C.OFF	STOP: Operating stop C.OFF: Motor current off	STOP: p.35 C.OFF: p.35
11	M0	HMSTOP	M0 to M5: Selects positioning operating data HMSTOP: Stops return-to-home operation	M0 to M5: p.27 HMSTOP: p.35
12	M1	–		
13	M2	–		
14	M3	–		
15	M4	–		
16	M5	–		
17	HOME/PRESET*2		HOME: Starts return-to-home operation. PRESET: Presets the current position.	HOME: p.25 PRESET: p.27
18	IN-COM1*3*4		Power supply input for input signals	–
19	I/O-GND		Power supply GND for I/O	–
30	REQ		ABS data request	p.36
31	FWD+	FP+	FWD+, FWD−, P24-FWD: Continuous operation in the + coordinate direction FP+, FP−, P24-FP: Pulse input operation in the + coordinate direction	FWD: p.31 FP: p.32
32	FWD−	FP−		
33	P24-FWD	P24-FP		
34	RVS+	RP+	RVS+, RVS−, P24-RVS: Continuous operation in the − coordinate direction RP+, RP−, P24-RP: Pulse input operation in the − coordinate direction	RVS: p.31 RP: p.32
35	RVS−	RP−		
36	P24-RVS	P24-RP		

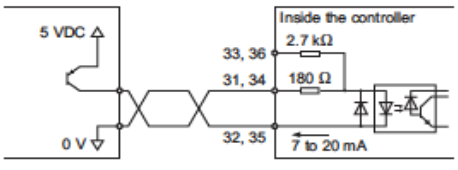
*1 If the REQ input is ON, this signal switches to the CK input. If the REQ input is OFF, it switches to the ACL input.
*2 Switch between the HOME and PRESET using the I/O parameter "HOME/PRESET switching" (factory setting: HOME).
*3 Connect this signal to 24 VDC if your controller is used in the NPN mode, or connect it to ground if the controller is used in the PNP mode.
*4 Connect this signal even when only output signals are used.

• Wiring of pins 31 to 36

• NPN specification (If used at 5 VDC*)
Sink output circuit connection



• PNP specification (If used at 5 VDC*)
Source output circuit connection



* If 24 VDC is used, use pin No.33 and 36. Refer to the connection examples shown on pp.17 to 20.

• Line driver connection