

Usage Manual



PHASE&VOLTAGE PROTECTION RELAY

No.288th. Wei 17 Road, Economic Development
Zone, Yueqing City Zhejiang China.
Tel: 0086-577-62718777 Fax: 0086-577-62774090
Email: sales@etek-china.com

Thank you for choosing EKSeries Phase&Voltage Protection Relay.
Please read this manual before installation, operation and maintenance.

STANDARD AND QUALITY CERTIFICATES



Contact Configuration
Universal Power Supply
2 LED Status Indicators

Only 17.5mm Wide
DIN Rail Mountable
CE RoHS Compliant

	Type	Over Voltage	Under Voltage	Time Delay	Phase Sequence	Phase Failure	Asy
Single Phase	EKR8-7011□	15%		3S	—	—	—
	EKR8-7211□	0-20%	0-20%	3S	—	—	—
	EKR8-7311□	0-20%	0-20%	0.1-10S	—	—	—
Three-phase Three-wire	EKR8-7010□	15%		3S	√	√	—
	EKR8-7210□	0-20%	0-20%	3S	√	√	—
	EKR8-7310□	0-20%	0-20%	0.1-10S	√	√	—
	EKR8-7110H11	—		3S	—	√	—
	EKR8-7111H11	—		3S	√	√	—

	Type	Over Voltage	Under Voltage	Time Delay	Phase Sequence	Phase Failure	Asy
Three-phase four-wire	EKR8-741NA01	0-20%	0-20%	3S	✓	✓	✓
	EKR8-711N□	—		✓	—	✓	—
	EKR8-7112H11	—		3S	✓	✓	—
	EKR8-762NA01	0-20%	0-20%	ON:0.1-10S OFF:0.1-10S	✓	✓	✓
Three-phase Three-wire & Three-phase four-wire	EKR8-7020□	15%		3S	✓	✓	✓
	EKR8-7120A01	15%		3S	✓	✓	✓
	EKR8-7220□	0-20%	0-20%	3S	✓	✓	✓
	EKR8-7320□	0-20%	0-20%	0.1-10S	✓	✓	✓
	EKR8-741BA01	0-20%	0-20%	0.1-10S	✓	✓	✓
□: Operating voltage: 110: 110VAC 220: 220VAC 380: 380VAC 415: 415VAC 440: 440VAC A01: 127V-254VAC L/N H11: 220-480VAC L/L							

ITEM NO.	SINGLE PHASE	3P3W	3P4W	3P3W&3P4W
RATED VOLTAGE	AC 110V,220V, 230V,240V	AC 220V,240V, 380V,400V,415V,440V	AC127-254V(L/N)	
FREQUENCY	50 or 60Hz		50 or 60Hz	
RESPONSE TIME OF RELAY	DELAY ON: 0.5s or 0.1-10S DELAY OFF: 3S or 0.1-10S			
CONTACT RATING	3A/250VAC			
Ith	5A			8A/250VAC DPDT
RESET TIME	0.2 Sec Max			8A
AMBIENT TEMP	-10℃—55℃			
SETTING ERROR	± 10%MAX			
REPEAT ERROR	± 2%MAX			
VOLTAGE ERROR	± 2%MAX			
TEMP. ERROR	± 2%MAX			

OPERATION CHART(3P4W 3P3W&3P4W)

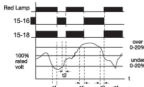
A. Phase Failure



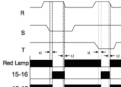
B. Phase sequence



C. Over & under voltage



D. Asymmetric voltage



★ Asymmetric Voltage Function:

(The highest voltage of phase a,b,c.)-(The lowest voltage of phase a,b,c)

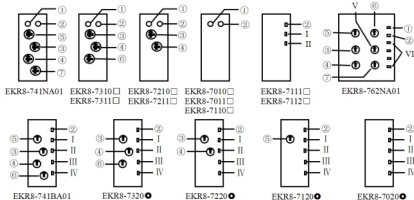
(The highest voltage of phase a,b,c)

Relay 15-18 Off

Red Lamp Off

% ≥ Asymmetric voltage limit 5%-15%

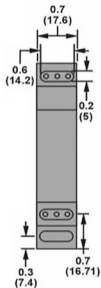
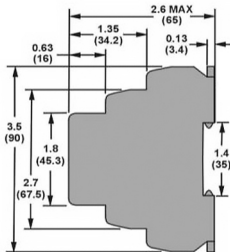
MODEL&EXPLANATION



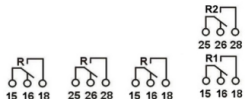
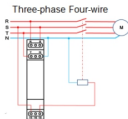
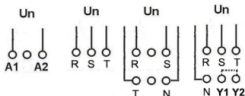
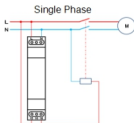
- ① Power Indicator ② Work Indicator ③ Over Voltage Setting
 ④ Under Voltage Setting ⑤ Voltage Setting
 ⑥ Time for Action Delay ⑦ Asy Setting

- I . Phase Failure Indicator
 II . Phase Sequence Fault Indicator
 III. Over Voltage Indicator
 IV. Under Voltage Indicator
 V. Time for Rest Delay
 VI. Malfunction Indicator

DIMENSIONS Inches(mm)



WIRING DIAGRAMS



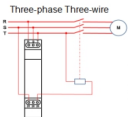
Single
Phase

3P3W

3P4W

3P3W&3P4W

※1



※1 3P3W&3P4W series are three-phase three-wire and three-phase four wire in common use. Connection methods:
3P3W: Y1 and Y2 are not connected
3P4W: Y1 and Y2 are short-connected