

Usage Manual



RCCB with Overcurrent Protection (RCBO)

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 EK Series RCCB with Overcurrent Protection.
Please read this manual before installation, operation and maintenance.

STANDARD AND QUALITY CERTIFICATES

IEC/EN61009-1

Technical Data

Mode	EKL5-63, EKL15-63
Type	AC, A, S
Rated current I_n	6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63A
Poles	2P(1P+N), 4P(3P+N)
Rated voltage U_e	2P 230/240V~ 4P 400/415V~
Insulation voltage U_i	500V
Rated frequency	50/60Hz
Rated residual operating current ($I_{\Delta n}$)	10, 30, 100, 300mA
Break time under $I_{\Delta n}$	$\leq 0.1s$ (S type $< 0.5s$)
Rated breaking capacity	6,000A
Energy limiting class	3
Rated impulse withstand voltage (1.5/50) U_{imp}	4,000V
Dielectric test voltage at ind.Freq. for 1min	2kV

Pollution degree	2
Thermo-magnetic release characteristic	B, C, D
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Reference temperature for setting of thermal element	30°C
Ambient temperature (with daily average $\leq 35^\circ\text{C}$)	$-5^\circ\text{C} \sim +40^\circ\text{C}$
Storage temperature	$-25^\circ\text{C} \sim +70^\circ\text{C}$

Terminal connection type	Cable/Pin-type busbar/U-type busbar
Terminal size top/bottom for cable	25mm ² 18-3AWG
Terminal size top/bottom for busbar	25mm ² 18-3AWG
Tightening torque	2.5Nm 22In-lbs
Mounting	On DIN rail EN60715(35mm) by means of fast clip device
Connection	From top
Auxiliary contact	EKM1-OF
Alarm contact	EKM1-FB
Shunt release	EKM1-MX

Characteristics

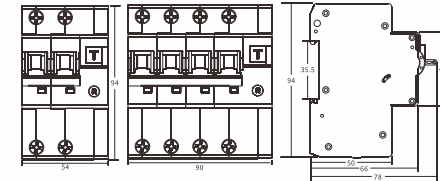
Type	Tripping current $I_{\Delta n}/A$		
AC	$0.5I_{\Delta n} < I_{\Delta} < I_{\Delta n}$		
A	Lagging Angle	$I_{\Delta n} > 0.01A$	$I_{\Delta n} \leq 0.01A$
	0°	$0.35I_{\Delta n} \leq I_{\Delta} \leq 1.4I_{\Delta n}$	$0.35I_{\Delta n} \leq I_{\Delta} \leq 2I_{\Delta n}$
	90°	$0.25I_{\Delta n} \leq I_{\Delta} \leq 1.4I_{\Delta n}$	$0.25I_{\Delta n} \leq I_{\Delta} \leq 2I_{\Delta n}$
	135°	$0.11I_{\Delta n} \leq I_{\Delta} \leq 1.4I_{\Delta n}$	$0.11I_{\Delta n} \leq I_{\Delta} \leq 2I_{\Delta n}$

CHARACTERISTICS CURVES

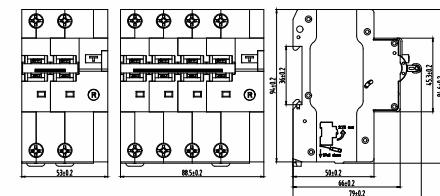
IEC/EN61009-1		30~35°C				
	Thermal Tripping			Magnetic Tripping		
	No tripping current	Tripping current	Time Limits t	Hold current	Trip current	Time Limits t
B Curve	1.13× I_n	$\geq 1h$	$\geq 1h$	3× I_n	$\geq 0.1s$	$\geq 0.1s$
C Curve	1.13× I_n	$\geq 1h$	$\geq 1h$	5× I_n	$\geq 0.1s$	$\geq 0.1s$
D Curve	1.13× I_n	$\geq 1h$	$\geq 1h$	10× I_n	$\geq 0.1s$	$\geq 0.1s$
		1.45× I_n	$< 1h$		5× I_n	$< 0.1s$
			$< 1h$		10× I_n	$< 0.1s$
			$< 1h$		20× I_n	$< 0.1s$

Overall Installation Dimension(mm)

EKL5-63

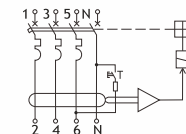
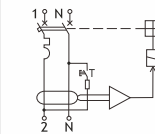


EKL15-63



Circuit Diagram

EKL5-63



EKL15-63

