



MARKO
ELEKTROTECH

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Bedienungsanleitung

FI+LS Kombiniertes Fehlerstromschutzschalter (RCBO)

EKL9-40

Thank you for choosing Marko Elektrotech
Series RCCB with overcurrent protection.

Please read this manual before installation,
operation and maintenance

STANDARD AND QUALITY CERTIFICATES

IEC/EN61009-1

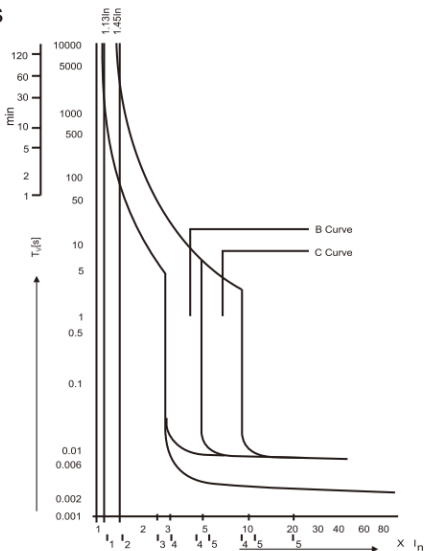


Technical Data

Mode	Electronic
Type	AC,A
Rated current I_n	6,8,10,13,16,20,25,32,40A
Poles	1P+N
Rated voltage U_e	240V~
Insulation voltage U_i	500V
Rated frequency	50/60Hz
Rated residual operating current ($I_{\Delta n}$)	10,30,100,300mA
Break time under $I_{\Delta n}$	$\leq 0.1s$
Rated breaking capacity	6,000A
Energy limiting class	3

Dielectric test voltage at ind.Freq. for 1min	2kV
Pollution degree	2
Thermo-magnetic release characteristic	B,C
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 ≤35°C)	-5°C~+40°C
Storage temperature	-25°C~+70°C
Terminal connection type	Cable/Pin-type busbar /U-type busbar
Terminal size top/bottom for cable	16mm ² 18-5AW
Terminal size top/bottom for busbar	16mm ² 18-5AW G
Tightening torque	2.5Nm 22In-lbs
Mounting	On DIN rail EN60715(35mm) by means of fast clip device
Rated impulse withstand voltage (1.5/50) Uimp	4,000V
Auxiliarycontact	EKM2-OF
Alarmcontact	EKM2-FB
Shuntrelease	EKM2-MX
Overvoltageprotection	Yes
Undervoltageprotection	Yes
Over/Undervoltageprotection	Yes

Characteristics
 Curves



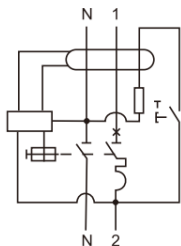
Characteristics

Type	Tripping current $I\Delta/A$		
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	1.45 × I _N	≥ 1h < 1h	3 × I _N	5 × I _N	≥ 0.1s < 0.1s
C Curve	1.13 × I _N	1.45 × I _N	≥ 1h < 1h	5 × I _N	10 × I _N	≥ 0.1s < 0.1s

Circuit diagramm



Overall and installation dimensions (mm)

