DATASHEET - MMC4-C10/3



Miniature circuit breaker (MCB), 10 A, 3p, characteristic: C

Powering Business Worldwide

mMC4-C10/3 Part no. Catalog No. 139037

livery		

7 p - 3 -			
Basic function			Miniature circuit-breakers
Number of poles			3 pole
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	In	Α	10
Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	4.5
Product range			mMC4

Technical data

Electrical

Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	4.5
Rated insulation voltage	Ui	V	440
Rated impulse withstand voltage	U_{imp}	kV	4
lifespan			
Electrical	Operations		≧ 10000
Mechanical	Operations		≧ 20000
References			

Auxiliary switch for subsequent installation	ZP-IHK 286052
Tripping signal contact for subsequent installation	ZP-NHK 248437
Remote control and automatic switching device	Z-FW/LP 248296
Switching interlock	Z-IS/SPE-1TE 274418

Mechanical

Standard front dimension	mm	45
Device height	mm	80
Mounting		Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715
Degree of Protection		IP20
Terminals top and bottom		Open mouthed/lift terminals
Terminal protection		finger and hand touch safe, DGUV VS3, EN 50274
Thickness of busbar material	mm	0.8 - 2

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	10
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	4.6
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	75
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity

Technical data ETIM 7.0

	circuit breaker (MCB) (FC0000	

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB)

(ecl@ss10.0.1-27-14-19-01 [AAB905014])		
Release characteristic	С	
Number of poles (total)	3	

Rated current A 10 Rated voltage V 20 Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4. Rated short-circuit breaking capacity Icn EN 60898 at 230 V kA 5. Rated short-circuit breaking capacity Icn EN 60898 at 400 V kA 0. Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V kA 0. Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0. Voltage type kA 0. Current limiting class S 0.6 Current limiting class N 0. Suitable for flush-mounted installation N 0. Concurrently switching N-neutral N 0. Dover voltage category N 3 Pollution degree 2 2 Additional equipment possible Yes Width in number of modular spacings N 2 Built-in depth mm 0.5 Built-in depth mm 0.5			
Rated voltage V 200 Rated insulation voltage Uin V 440 Rated impulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Icn EN 60898 at 230 V kA 4.5 Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Voltage type L AC Current limiting class 3 3 Suitable for flush-mounted installation yes Concurrently switching N-neutral No 3 Over voltage category 3 3 Pollution degree 2 2 Additional equipment possible yes Width in number of modular spacings yes Built-in depth mm 70.5 Degree of protection (IP) IP20 Ambient temperature during operating *C 25-40 Connectable conductor cross section multi-wired mm* 2-16	Number of protected poles		3
Rated insulation voltage Uin Rated insulation voltage Uinp Rated short-circuit breaking capacity Icn EN 60998 at 230 V Rated short-circuit breaking capacity Icn EN 60998 at 400 V Rated short-circuit breaking capacity Icn EN 60998 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Prequency Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Reted short-circuit breaking capacity Icu IEC 60947-2 at 400 V	Rated current	Α	10
Rated impulse withstand voltage Ulimp Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Voltage type Reted short-circuit breaking capacity Icn IEC 60947-2 at 400 V Voltage type Current limiting class Suitable for flush-mounted installation Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired RV	Rated voltage	V	230
Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 2400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking cap	Rated insulation voltage Ui	V	440
Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu ICC 60947-2 at 200 V Rated short-circuit breaking capa	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Rrequency Rrequency Ruitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Ruitable for protection (IP) Ambient temperature during operating Concuretable conductor cross section multi-wired Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V RA Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V RA RA 0 C C C C C C C C C C C C C C C C C C	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	4.5
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Voltage type Hz 50 - 60 Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Concured w Concurrently wired Concurrently wired Concurrently switching N-neutral No Concurrently switching N	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	4.5
Voltage type Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired AC Back Back Back Back Back Back Back Bac	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	0
Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Hz 50 - 60 Yes Yes No No 2 4 7 7 8 7 8 7 8 7 8 7 8 8 8	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	0
Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 3 4 7 8 9 9 9 9 9 9 9 9 9 9 9 9	Voltage type		AC
Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Yes 70.5 120 120 120 120 120 120 120 12	Frequency	Hz	50 - 60
Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No No No 1 1 1 1 1 1 1 1 1 1 1 1 1	Current limiting class		3
Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 Pollution degree Yes 3 70.5 IP20 Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Suitable for flush-mounted installation		Yes
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 3 Built-in depth mm 70.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Concurrently switching N-neutral		No
Additional equipment possible Width in number of modular spacings Built-in depth mm 70.5 Degree of protection (IP) Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Over voltage category		3
Width in number of modular spacings Built-in depth mm 70.5 Degree of protection (IP) Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Pollution degree		2
Built-in depth mm 70.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Additional equipment possible		Yes
Degree of protection (IP) Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Width in number of modular spacings		3
Ambient temperature during operating °C -25 - 40 Connectable conductor cross section multi-wired mm² 2 - 16	Built-in depth	mm	70.5
Connectable conductor cross section multi-wired mm² 2 - 16	Degree of protection (IP)		IP20
	Ambient temperature during operating	°C	-25 - 40
Connectable conductor cross section solid-core mm² 1.5 - 35	Connectable conductor cross section multi-wired	mm²	2 - 16
	Connectable conductor cross section solid-core	mm²	1.5 - 35