



Product type designation Miniature circuit breaker (MCR) Product type designation				9 1 -
Product type designation FI MB Number of poles 3P Number of poles 3P Compliance IEC / UL1077 Electrical features IEC / UL1077 Electrical features V 440 Rated insulation voltage UIIEC/EN V 440 Rated inpulse withstand voltage UIIED kV 4 Rated operational voltage AC (IEC) VAC 230/400 Rated current (in) A 10 Rated current (in) A 10 Power dissipation per pole max B D Short circuit rating (IEC) kA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Operating temperature min °C 40	Deschiert designation			Miniature circuit
Number of poles 3P Number of DIN modules 3P Compliance 1EC / UL 1077 Electrical features V 440 Rated insulation voltage UI IEC/EN V 4 Rated operational voltage UI EC/E) VAC 230/400 Rated operational voltage AC (IEC) VAC 230/400 Rated operational voltage AC (IEC) L 5060 Rated current (In) A 10 Tripping curve KA 10 Short circuit rating (IEC) KA 10 Power dissipation per pole max KA 10 Power dissipation per pole max W 1.25 Ambient conditions V 2.40 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Storage temperature min °C -40 Max altitude m 2000 Mechanical features W 2.40 Poperating position normal Vertical plan Fixing	Product designation			
Number of DIN modules 3 Compliance IEC / UL 1077 Electrical features V 440 Rated insulation voltage UI IEC/EN V 40 Rated inpulse withstand voltage LOIEC) VA 20x0400 Rated frequency Hz 50/60 Rated current (In) A 10 Tripping cure B VX 10 Short circuit rating (IEC) KA 10 Electrical life cycles 1000 Power dissipation per pole max W 12 1000 Power dissipation per pole max W 12 40 100	Product type designation			P1 MB
Compliance Electrical features V 440 Rated impulse withstand voltage Uimp kV 4 Rated operational voltage AC (IEC) VAC 230/400 Rated current (In) A 10 Tripping curve B D Short circuit rating (IEC) KA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Operating temperature min °C 40 Storage temperature min °C 40 Max altitude m 2000 Mechanical features m 2000 Operating position m vertical plan Fixing somm DIN rail 18 Fixing somm DIN rail 18 Fixing min Nm 1.8 Fixing min Nm 1.8 Fixing min Nm 1.8 max <t< td=""><td>Number of poles</td><td></td><td></td><td>3P</td></t<>	Number of poles			3P
Electrical features V 440 Rated insulation voltage Uir IEC/EN kV 4 Rated operational voltage AC (IEC) VAC 230/400 Rated operational voltage AC (IEC) VAC 230/400 Rated current (In) A 10 Tripping curve D D Short circuit rating (IEC) kA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Operating temperature min °C -40 Max altitude max °C +70 Storage temperature min 200 *** Mechanical features *** 2000 *** Operating position normal Vertical plan *** Fixing softman *** *** *** Operating position min Nm 1.8 *** *** *** *** *** *** *** ***	Number of DIN modules			3
Rated insulation voltage Uil EC/EN V 440 Rated impulse withstand voltage Uimp RV 230/400 Rated operational voltage AC (IEC) VAC 230/400 Rated frequency Hz 50/60 Rated current (In) A 10 Tripping curve D NA 10 Short circuit rating (IEC) KA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Operating temperature min °C -40 max °C +70 Storage temperature min °C +40 Max altitude m 2000 Mechanical features vertical plan 1 Operating position normal vertical plan Fixing normal vertical plan Tightening torque for terminals min Nm 1.8 max Nm 2 2 Conductor section <td>Compliance</td> <td></td> <td></td> <td>IEC / UL1077</td>	Compliance			IEC / UL1077
Rated impulse withstand voltage Ulimp kV 4 Rated operational voltage AC (IEC) VAC 230/400 Rated frequency Hz 50/60 Rated current (In) A 10 Tripping curve D D Short circuit rating (IEC) kA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions Operating temperature min °C -40 max °C +70 Storage temperature Min °C -40 max °C -40	Electrical features			
Rated operational voltage AC (IEC) VAC 230/400 Rated frequency Hz 50/60 Rated current (In) A 10 Tripping curve D D Short circuit rating (IEC) kA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions Operating temperature min °C -40 max °C -40 max °C +70 Storage temperature Max altitude m 20000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000	Rated insulation voltage Ui IEC/EN		V	440
Rated frequency Hz 50/60 Rated current (In) A 10 Tripping curve D D Short circuit rating (IEC) kA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions W 1.25 Operating temperature min *C -40 Max altitude min *C -40 Max altitude m 2000 Mechanical features min 000 Operating position normal Vertical plan Fixing normal Vertical plan Tightening torque for terminals min Nm 1.8 max Nm 2 min lbin 17.7 Terminals tool min min 16 Conductor section min min min 17.7 Terminals tool min min 3.5 AWG/Kcmil min min </td <td>Rated impulse withstand voltage Uimp</td> <td></td> <td>kV</td> <td>4</td>	Rated impulse withstand voltage Uimp		kV	4
Rated current (In) A 10 Tripping curve D Short circuit rating (IEC) KA 10 Electrical life cycles 10000 Power dissipation per pole max W 1.25 Ambient conditions Operating temperature min °C -40 max °C +70 Storage temperature min °C -40 Max altitude m 2000 Mechanical features min °C -40 Operating position normal Vertical plan Fixing 35mm DIN rail Fixing 35mm DIN rail Fixing 35mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 2 Conductor section min nm 2 IEC min mm 2 Ecc min mm 2 AWG/Kcmil min min mm	Rated operational voltage AC (IEC)		VAC	230/400
Tripping curve	Rated frequency		Hz	50/60
Short circuit rating (IEC) kA 10 Electrical life cycles 100000 Power dissipation per pole max W 1.25 Ambient conditions Operating temperature min °C -40 max °C +70 Storage temperature min °C -40 max °C +80 Max altitude min aux occupation min aux occupation Fixing Toperating position normal Vertical plan Fixing Tightening torque for terminals min Nm 1.8 max Nm 2 min loin 16 max loin 17.7 Terminals tool p 2 2 Conductor section IEC Mechanical tool min mm² 1 mm² 1 mm² 35 AWG/Kcmil min mm² 14 max 6 Mechanical life cycles 20000	Rated current (In)		Α	10
Short circuit rating (IEC) kA 10 Electrical life cycles 100000 Power dissipation per pole max W 1.25 Ambient conditions Operating temperature min of characteristics -40 max of characteristics Storage temperature min of characteristics -40 max of characteristics Max attitude m 2000 Mechanical features min of max Vertical plan Fixing 35mm DIN rail Tightening torque for terminals min of max Nm 2 min of max Tightening torque for terminals min of max 16 max 17 max Terminals tool p2 2 2 Conductor section IEC min of max 1 max 1 max 1 max 1 max 1 max 6 1 max 1 max 6 1 max <	Tripping curve			D
Power dissipation per pole max			kA	10
Ambient conditions	Electrical life		cycles	10000
Operating temperature min mo °C max °C +40 max °C +70 Storage temperature min °C -40 max °C +80 Max altitude m 2000 Mechanical features Operating position mormal Vertical plan S5mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 max Nm 1bin 16 max 1bin 16 max 1bin 17.7	Power dissipation per pole max		W	1.25
Min C -40 max C +70	Ambient conditions			
max °C +70 Storage temperature min °C -40 min °C -480 Max altitude m 2000 Mechanical features Operating position normal Vertical plan Eximpt Min Vertical plan Tightening torque for terminals min Nm 1.8 max Nm 2 min Nm 1.8 max Nm 2 Terminals tool p2 2 Conductor section IEC min mm² 1 AWG/Kcmil min mm² 1 AWG/Kcmil min mm² 14 max n 6 Mechanical life cycles 20000 Weight g 345	Operating temperature			
Storage temperature		min	°C	-40
Max altitude min max °C +80 Mechanical features mechanical features Operating position normal Vertical plan Fixing 35mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 min lbin 16 max lbin 17.7 Terminals tool pz 2 Conductor section min mm² 1 mm² 3 mm² 35 AWG/Kcmil min mm² 14 max 6 Mechanical life cycles 20000 Weight g 345		max	°C	+70
Max altitude max °C +80 Mechanical features Operating position Fixing 35mm DIN rail Fixing 35mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 min lbin 17.7 Terminals tool Pz 2 Conductor section IEC min mm² 1 AWG/Kcmil min mm² 1 AWG/Kcmil min 14 max 6 Mechanical life cycles 20000 Weight g 345	Storage temperature			
Max altitude m 2000 Mechanical features Operating position Fixing 35mm DIN rail Tightening torque for terminals min Nm Nm 1.8 max Nm 2 max Nm 15 max Nm 2 ma		min	°C	-40
Mechanical features Operating position Fixing 35mm DIN rail Tightening torque for terminals min Nm Nm 1.8 max Nm 2 min Ibin 16 max Ibin 16 max Ibin 17.7 Terminals tool Pz 2 Conductor section IEC min mm² 1 mm² 1 max mm² 35 AWG/Kcmil min max 14 max 14 max 6 Mechanical life cycles 20000 Weight g 345		max	°C	+80
Operating position Fixing 35mm DIN rail Tightening torque for terminals min Nm Nm 1.8 max Nm 2 min Ibin 16 max Ibin 17.7 Terminals tool Pz 2 Conductor section IEC min mm² 1 nm² 1 nm² 35 AWG/Kcmil min mm² 14 max 6 Mechanical life cycles 20000 Weight g 345	Max altitude		m	2000
Normal Vertical plan Fixing 35mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 min lbin 16 max lbin 17.7 Terminals tool Pz 2 Conductor section IEC min mm² 1 AWG/Kcmil min max mm² 35 Mechanical life cycles 20000 Weight g 345	Mechanical features			
Fixing 35mm DIN rail Tightening torque for terminals min Nm 1.8 max Nm 2 min lbin 16 max lbin 17.7 Terminals tool Pz 2 Conductor section min mm² 1 max mm² 35 AWG/Kcmil min mm² 14 max 6 Mechanical life cycles 20000 Weight g 345	Operating position			
Tightening torque for terminals		normal		Vertical plan
Mechanical life Min Nm 1.8 max Nm 2 min Ibin 16 max Ibin 17.7	Fixing			35mm DIN rail
Max Nm 2 min lbin 16 max lbin 17.7	Tightening torque for terminals			
Mechanical life min max lbin 16 max lbin 17.7		min	Nm	1.8
Terminals tool		max	Nm	2
Terminals tool		min	lbin	16
Conductor section IEC min mm² 1 max mm² 35		max	lbin	
IEC				Pz 2
min mm² mm² max 1 max mm² 35 AWG/Kcmil min 14 max 6 Mechanical life cycles 20000 Weight g 345				
Max mm² 35	IEC			
AWG/Kcmil min max 14 max 6 Mechanical life cycles 20000 Weight g 345		min		
min max 14 max Mechanical life cycles 20000 Weight g 345		max	mm²	35
Mechanical life cycles 20000 Weight g 345	AWG/Kcmil			
Mechanical lifecycles20000Weightg345				
Weight g 345		max		
	Maghaniaallifa		cycles	
Frontal IP degree IP20				
	Weight		g	
Pollution degree 2	Weight Frontal IP degree		<u>g</u>	IP20



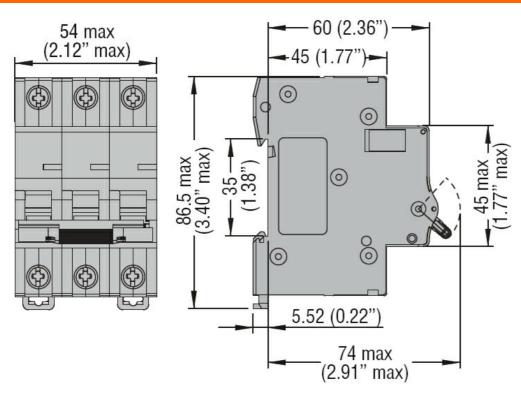
ENERGY AND AUTOMATION

Grid distance as per Annex H.1 of IEC/EN60898-1 standard

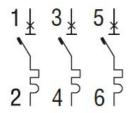
mm

60

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n°235. UR "UL Recognized" per Canada e USA.

IEC/EN 60898-1

IEC/EN 60947-2

UL 1077

Certifications

cURus

EAC

TÜV-Rheinland

ETIM classification

ETIM 8.0

EC000042 -Miniature circuit breaker (MCB)