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Thermal Magnetic Circuit Breakers - UL 1077

TMC 60 Series for mounting on 35 mm DIN rail

Overview

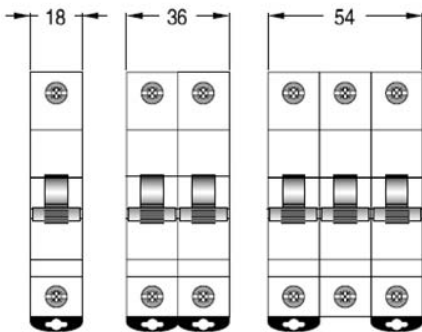
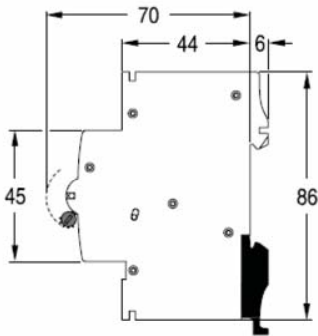
The TMC 60 Series provides supplemental overload and short-circuit protection. An interrupt capacity of 10 kAIC at 480/277V AC and dual AC/DC ratings make the series ideal for a wide range of applications.

These DIN rail-mountable circuit breakers are available in one-, two-, and three-pole configurations. An auxiliary contact in S- or H-function status output is also available. The TMC 60 Series is UL recognized, CSA approved and carries the CE mark.

Typical Application

Circuit protection for power supplies, UPS, controller I/O points, relay/contactors coils, control circuits, appliances and motor circuits.

Dimensions



Note: all measurements in millimeters



Technical Data

Circuit Breakers

Current Range 0.5 to 63 Amps

Ratings

Standard	Voltage	Number of Poles
UL 1077, CSA	240/415 V AC	1
	415 V AC	2, 3
	48 V DC	1
	110 V DC	2 (in series)

Trip Characteristics C: 0.5-63A

Rated Wire Sizes - Line/Load

Rigid	35 mm ² / 2 AWG	min/max
Flexible	25 mm ² / 3 AWG	min/max

Torque 4.5 Nm / 39.8 lb_f-in

Vibration

(per IEC 77/16.3) 3 g (in x, y, z direction)

Endurance

Electrical @ V _N , I _N	10,000
Mechanical	20,000

Plastics Rating per UL 94

Protection Level IP 20

Temperature

Operating	-25° to +55°C (-13° to +131°F)
Storage	-55° to +55°C (-67° to +131°F)

Configuration

1 pole	2 pole	3 pole
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Weight 120 g 240 g 360 g

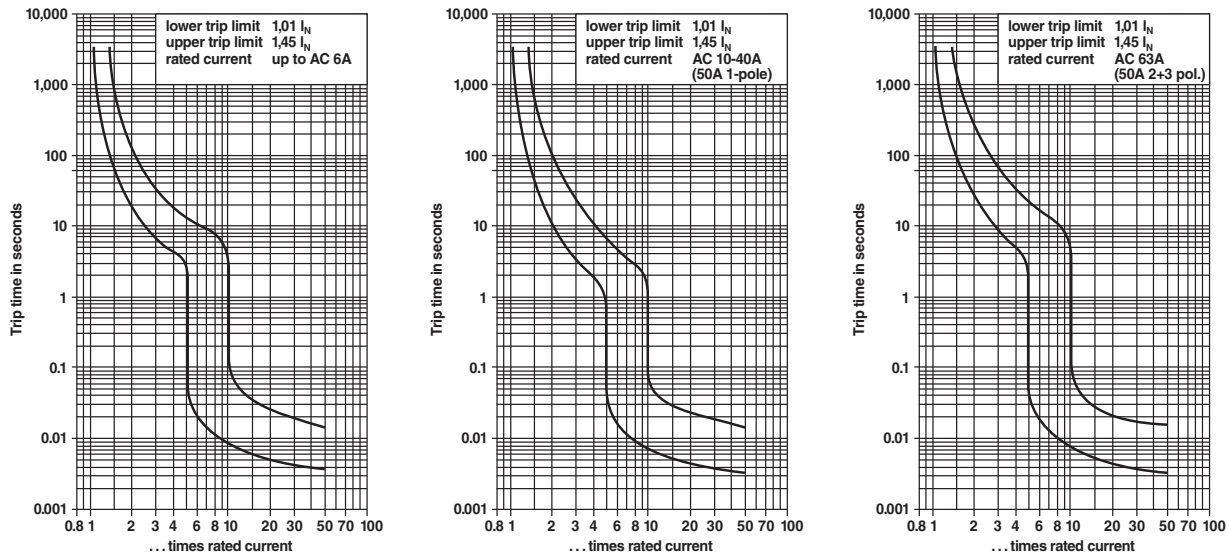
Thermal Magnetic Circuit Breakers

Standard current ratings and typical internal resistance values

One-pole		Two-pole		Three-pole	
Part Number	Description	Part Number	Description	Part Number	Description
0902014	TMC 61C 0,5A	0902166	TMC 62C 0,5A	0902315	TMC 63C 0,5A
0902027	TMC 61C 01A	0902179	TMC 62C 01A	0902328	TMC 63C 01A
0902030	TMC 61C 02A	0902182	TMC 62C 02A	0902331	TMC 63C 02A
0902043	TMC 61C 03A	0902195	TMC 62C 03A	0902344	TMC 63C 03A
0902056	TMC 61C 04A	0902205	TMC 62C 04A	0902357	TMC 63C 04A
0902069	TMC 61C 06A	0902218	TMC 62C 06A	0902360	TMC 63C 06A
0902072	TMC 61C 10A	0902221	TMC 62C 10A	0902373	TMC 63C 10A
0902085	TMC 61C 13A	0902234	TMC 62C 13A	0902386	TMC 63C 13A
0902098	TMC 61C 16A	0902247	TMC 62C 16A	0902399	TMC 63C 16A
0902108	TMC 61C 20A	0902250	TMC 62C 20A	0902409	TMC 63C 20A
0902111	TMC 61C 25A	0902263	TMC 62C 25A	0902412	TMC 63C 25A
0902124	TMC 61C 32A	0902276	TMC 62C 32A	0902425	TMC 63C 32A
0902137	TMC 61C 40A	0902289	TMC 62C 40A	0902438	TMC 63C 40A
0902140	TMC 61C 50A	0902292	TMC 62C 50A	0902441	TMC 63C 50A
0902153	TMC 61C 63A	0902302	TMC 62C 63A	0902454	TMC 63C 63A

Typical time/current characteristics at 23 degrees Celsius

Direct Current - Magnetic tripping currents are increased by 30 percent in DC circuits with the effect of shifting the magnetic trip range 30 percent to the right of Alternating Current (AC) trip curves.



(multipole types: all poles symmetrically loaded)

The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, multiply the circuit breaker current ratings by the derating factor shown at right.

Amps	Temperature °C														
	-20°	-15°	-10°	-5°	0°	+5°	+10°	+15°	+20°	+25°	+30°	+35°	+40°	+45°	+50°
0.5 - 4.0	0.84	0.85	0.87	0.88	0.89	0.91	0.93	0.94	0.96	0.98	1.00	1.02	1.04	1.06	1.09
8.0 - 10	0.75	0.77	0.78	0.81	0.83	0.85	0.88	0.90	0.93	0.96	1.00	1.04	1.09	1.14	1.20
13 - 40	0.79	0.80	0.82	0.84	0.86	0.88	0.90	0.93	0.94	0.97	1.00	1.03	1.06	1.11	1.15
50-60	0.81	0.83	0.84	0.85	0.87	0.89	0.91	0.93	0.94	0.97	1.00	1.02	1.05	1.09	1.12

Thermal Magnetic Circuit Breakers

Technical Data

Auxiliary Contact

Ratings	Voltage	240 V AC
	Current	5 A

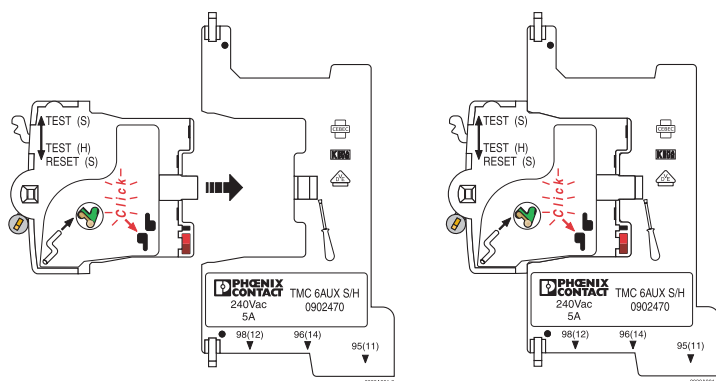
Contacts	1 Form C
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Rated Wire Sizes	2.5 mm ² / 14 AWG
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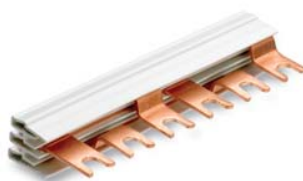
Weight	70 g
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Contact Functions	Auxiliary (H) or Signal (S)*
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*The TMC 6AUX S/H can operate as either an auxiliary contact (H function) or a signal contact (S function). The operation of the auxiliary switch is determined at the time of installation. The signal contact (function S) status provides the automatic trip status of the protection device. The auxiliary (H function) provides the OPEN/ CLOSED status of the protective device. A test button on the front of the auxiliary switch simulates functions S or H. The test button also acts as a reset for the trip signal (function S) contacts.



Accessories



Auxiliary Contact	Lock Out Component	3-Phase Comb Bridge	Single Row Comb Bridge
0902470 TMC 6AUX S/H	0902467 TMC 6LOCKOUT	2809241* 3-Phase bridge/6 position	2809212* Single Phase/3 position



Marking	Wire	End Covers
2809128 ZBN 18:UNBEDRUCKT quantity: 10 pieces	2818339 MPB F200X16/1GS length: 200 mm	2809322 3-Phase bridge end cover

* Available in up to 57 positions