© ছিন্দিঐ Thermal Overcurrent Circuit Breaker 3140

Description

Four pole switch or three pole switch/thermal circuit breaker (S-type TO CBE to EN 60934) with trip-free mechanism and red/green two button operation. Designed for snap-in panel mounting. Integral splash water protection to meet protection degree IP 66 in the operating area (option). Optional with under voltage release module.

Complies with CBE standard EN 60934 (IEC 60934).

Typical applications

High-pressure cleaners, shredders, pumps, power saws, electric tools, motors, processing systems.

Ordering information

Туре	No.					
3140	four pole switch or three pole switch/circuit breaker					
Mounting						
	snap in frame					
	Frame					
	1 standard					
	2 splash water protected version					
	Number of poles					
	3 3-pole, thermally protected					
	7 4-pole, thermally protected on 3 poles only					
	Frame mounting					
	o panel thickness 1-6.35 mm (.0425 in)					
	Terminal design					
	P7 blade terminals 2x2.8x0.8 mm (QC 2x.110), DIN 46244-C					
	H7 as P7, but for terminals x.1 terminal screws M3.5					
	(required with X3140 fitted)					
	Characteristic curve					
	T1 thermal					
	Switch style					
	S 2 push buttons (ON/OFF)					
	Switch colour					
	GRX green/red					
	Current rating range					
	0.116 A					
3140	- F 1 3 0 - P7 T1 - S GRX - 10 A ordering example					

Please be informed that we have minimum ordering quantities to be observed.

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance per pole (Ω)	Current rating (A)	Internal resistance per pole (Ω)
0.1	94	3.5	0.0595
0.2	24	4	0.0435
0.3	12	4.5	0.0325
0.4	5.30	5	0.0325
0.5	4.20	6	0.0215
0.6	2.90	7	0.0165
0.8	1.50	8	0.0125
1	0.9	10	< 0.02
1.2	0.80	12	< 0.02
1.5	0.45	14	< 0.02
2	0.27	15	< 0.02
2.5	0.0785	16	< 0.02
3	0.0595		

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved.Product markings may not be exactly as the ordering codes. Errors and omissions excepted.



Technical data

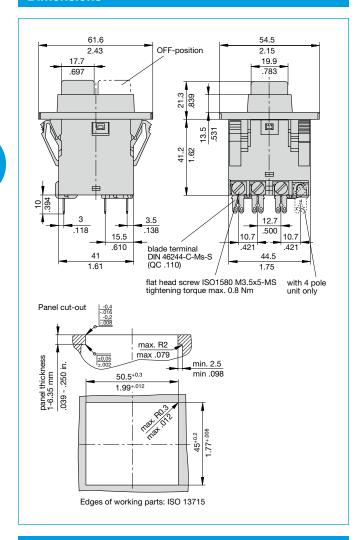
Current rating range 0.116 A Typical life 3-pole 3 AC 415 V: 0.114 A 10,000 operations at 1 x I _N , inductive 4-pole 10,000 operations at 1 x I _N , resistive 3 AC 415 V 0.114 A 10,000 operations at 1 x I _N , resistive 4-pole 10,000 operations at 1 x I _N , resistive Ambient temperature -30+60 °C (-22+140 °F) Insulation co-ordination (IEC 60664 and 60664A) operating area between poles (3-pole) rated impulse pollution withstand voltage degree 2.5 kV 2 reinforced insulation in operating area between poles (3-pole) Dielectric strength (IEC 60664 and 60664A) operating area between poles (3-pole) test voltage AC 3,000 V AC 1,500 V Insulation resistance > 100 MΩ (DC 500 V) Interrupting capacity (UL 1077) 0.12 A 10 x I _N 2.516 A 150 A Interrupting capacity (UL 1077) 0.116 A AC 250 V 5,000 A 0 Degree of protection (IEC 60529/DIN 40050) operating area IP40 (IP66 with water splash protection) terminal area IP00 Vibration 5 g (57-500 Hz) ± 0.38 mm (10-57 Hz) to IEC 60068-2-6, test Fc, 10 frequency cycles/axis Shock 20 g (11 ms) to IEC 60068-2-11, test Ka Humidity 240 hours at 95 % RH, to IEC 60068-2-78, test Cab	recimical	aata				
Current rating range 0.116 A Typical life 3-pole 3 AC 415 V: 0.114 A 10,000 operations at 1 x I _N , inductive 4-pole 10,000 operations at 1 x I _N , resistive 3 AC 415 V 0.114 A 10,000 operations at 1 x I _N , resistive 4-pole 10,000 operations at 1 x I _N , resistive Ambient temperature -30+60 °C (-22+140 °F) Insulation co-ordination (IEC 60664 and 60664A) operating area between poles (3-pole) rated impulse pollution withstand voltage degree 2.5 kV 2 reinforced insulation in operating area AC 3,000 V AC 1,500 V Interrupting capacity I _{cn} 0.12 A 10 x I _N 2.516 A 150 A 10 MΩ (DC 500 V) Interrupting capacity (UL 1077) 0.12 A 10 x I _N 2.516 A 150 A Degree of protection (IEC 60529/DIN 40050) 0.116 A AC 250 V 5,000 A Operating area IP40 0.116 A C 250 V 5,000 A Operating area IP40 0.116 A AC 250 V 5,000 A Operating area IP40 0.116 A AC 250 V 5,000 A Obegree of protection (IEC 60529/DIN 40050) 0.116 A AC 250 V 5,000 A Operating area IP40 0.116 A AC 250 V 5,000 A Oberating area IP40 0.116 A AC 250 V 5,000 A Operating area IP40 0.116 A AC 250 V 5	For further de	tails please	see: http://v	vww.e-t-a.de	e/ti_e	
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to IEC 60068-2-27, test Ea Corrosion 96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka Humidity 240 hours at 95 % RH, to IEC 60068-2-78, test Cab	Vibration		to IEC 60068-2-6, test Fc,			
to IEC 60068-2-11, test Ka Humidity 240 hours at 95 % RH, to IEC 60068-2-78, test Cab	Shock	nock				
to IEC 60068-2-78, test Cab	Corrosion					
Mass approx. 68	Humidity					
	Mass		approx. 68			

Approvals

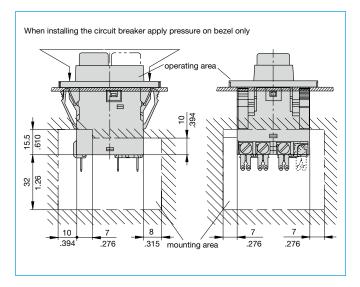
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Prüfstelle	Prüfnorm	Nennspannung	Nennstrombereich
UL	UL1077	AC 250 V DC 50 V	0,116 A (3-4 pole)
VDE	IEC/EN 60934	3 AC 415 V	0,1 A16 A (3-4 pole)
CQC	GB 17701	AC 240/415 V	0,1 A16 A (3-4 pole)
CSA	CSA C22.2, No. 235	AC 250 V DC 50 V	0,1 A16 A (3-4 pole)

② 国际A Thermal Overcurrent Circuit Breaker 3140

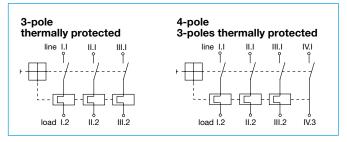
Dimensions



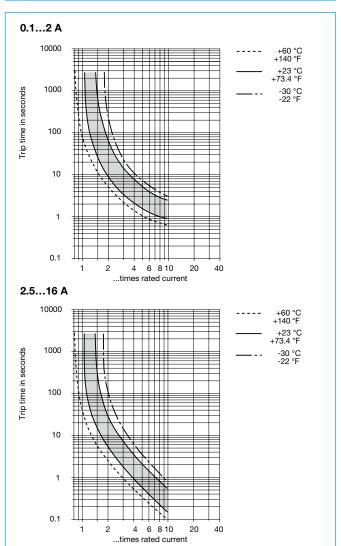
Installation drawing



Internal connection diagrams



Typical time/current characteristics



The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section Technical information.

Ambient temp. °F °C	-22 -30		+14 -10	+32 0	+73.4 +23	+104 +40		
Derating factor	0.8	0.76	0.84	0.92	1	1.08	1.16	1.24

❷ ፪፻厘ᡭ Undervoltage Release Module X3140-U...for circuit breaker 3140

Description

A module suitable for all versions of type 3140 to trip the main switch/circuit breaker mechanism in the event of loss of voltage of the connected phases. When the voltage is restored the switch must be reset to reconnect the load, thereby avoiding the safety hazards associated with automatic re-starting of machinery.

Note: Basic unit 3140-... must be fitted with -H7 or -G7 screw terminals.

US patent number: US 6,714,396 B2

Typical applications

Machines such as power tools, industrial equipment and domestic appliances where automatic restart after restoration of power could be dangerous (EU Machinery Directive).

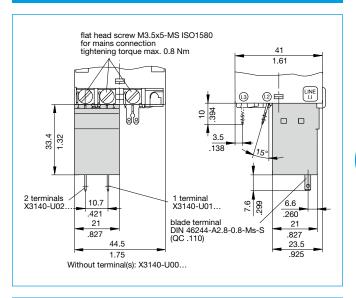
Ordering information

Type N				
X3140	Module	e for type 3140		
	Functi	on		
	U uno	dervoltage release module		
	Ter	minal design		
	00	standard (without separate connections)		
	01	one blade terminal 2.8x0.8 (QC .110)		
		Voltage ratings		
		00 AC 400 V 50/60 Hz		
		03 DC 24 V		
		09 AC 230 / 240 V 50/60 Hz		
	Assembly status			
		M module mounted to the circuit breaker		
X3140 -	· U 00	00 M ordering example		

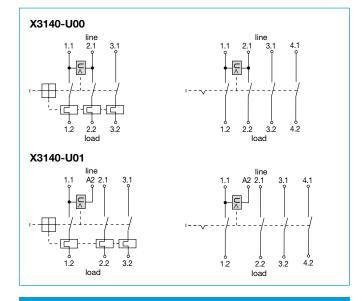
Technical data

Voltage ratings Voltage tolerance Current consumption Release values	AC 400 V 50/60 Hz; AC 230 V; DC 24 V $+10\%/-15\%$ approx. 2.0 mA $0.2 \times U_N < U < 0.7 \times U_N$ (at a rated voltage of AC 400 V the device may release at 280 V and
Current consumption	approx. 2.0 mA $0.2 \times U_N < U < 0.7 \times U_N$ (at a rated voltage of AC 400 V the
·	$0.2 \times U_N < U < 0.7 \times U_N$ (at a rated voltage of AC 400 V the
Release values	(at a rated voltage of AC 400 V the
	must release at 80 V)
Release delay	t < 20 ms
Latch-in values	≥ 85 % U _N
Ambient temperature	-30+60 °C (-22+140 °F)
Vibration	5 g (57-500 Hz) ± 0.38 mm (10-57 Hz) to IEC 60068-2-6, test Fc 10 frequency cycles/axis
Shock	20 g (11 ms) to IEC 60068-2-27, test Ea
Corrosion	48 hours at 5 % salt mist, to IEC 60068-2-11, test Ka
Humidity	240 hours at 95 % RH to IEC 60068-2-78, test Cab
Mass	approx. 90 g (complete assembly)

Dimensions



Internal connection diagrams



Approvals (complete circuit breaker/module assembly)

Authority	Standard	Rated voltage	Current ratings
VDE	IEC/EN 60934	AC 42400 V DC 24 V	

This is a metric design and millimeter dimensions take precedence $(\frac{mm}{inch})$

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