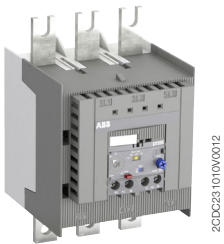
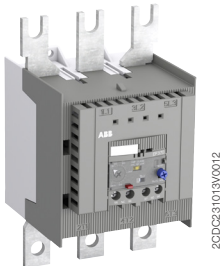


EF205, EF370 electronic overload relays

63 to 380 A



EF205-210



EF370-380

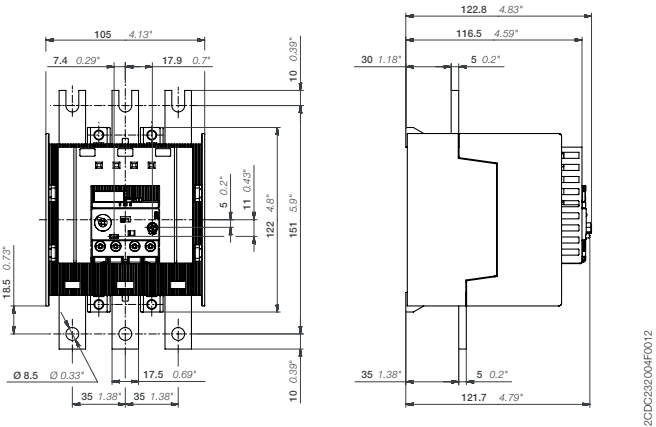
Description

The EF205 and EF370 are self-supplied electronic overload relays, which means no extra external supply is needed. It offers reliable protection for motors in the event of overload or phase failure. Easy to use like a thermal overload relay and compatible with standard motor applications, the electronic overload relay is convincing, above all, due to its wide setting range, high accuracy, high operational temperature range and the possibility to select a trip class (10E, 20E, 30E). Further features are the temperature compensation, trip contact (N.C.), signal contact (N.O.), automatic or manual reset selectable, trip-free mechanism, STOP and TEST function and a trip indication. The overload relays are connected directly to the contactors.

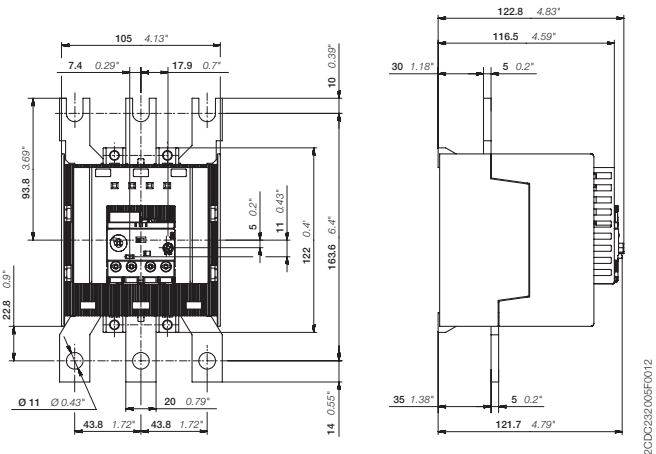
Ordering details

Setting range	Short-circuit protective device	Trip class	Type	Order code	Weight (1 pce) kg
A					
63 ... 210	1250 A, Fuse type gG	10E, 20E, 30E	EF205-210	1SAX531001R1101	1.210
115 ... 380	1600 A, Fuse type gG	10E, 20E, 30E	EF370-380	1SAX611001R1101	1.430

Main dimensions mm, inches



EF205-210



EF370-380

EF205, EF370 electronic overload relays

Technical data

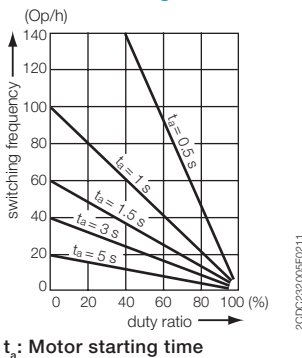
Main circuit – Utilization characteristics according to IEC/EN

Type	EF205, EF370
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1
Rated operational voltage U_n	1000 V AC
Rated frequency	50/60 Hz
Trip class	10E, 20E, 30E, selectable
Number of poles	3
Duty time	100 %
Operating frequency without early tripping	Up to 15 operations/h, see "Technical diagram – Intermittent periodic duty"
Rated impulse withstand voltage U_{imp}	8 kV
Rated insulation voltage U_i	1000 V

Auxiliary circuit according to IEC/EN

Type	EF205, EF370
Rated operational voltage U_n	600 V AC / DC
Conventional free air thermal current I_{th}	6 A
Rated frequency	DC, 50/60 Hz
Number of poles	1 N.C. + 1 N.O.
I_n / Rated operational current AC-15 acc. to IEC/EN 60947-5-1 for utilization category	
110-120 V	50/60 Hz 3.00 A
220-230-240 V	50/60 Hz 3.00 A
400 V	50/60 Hz 1.10 A
480-500 V	50/60 Hz 0.75 A
I_n / Rated operational current DC-13 acc. to IEC/EN 60947-5-1 for utilization category	
24 V	1.50 A
60 V	0.55 A
110-120-125 V	0.55 A
250 V	0.27 A
Minimum switching capacity	12 V / 3 mA
Short-circuit protective device	6 A, Fuse type gG
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	690 V

Technical diagram – Intermittent periodic duty



EF205, EF370 electronic overload relays

Technical data

Main circuit – Utilization characteristics according to UL/CSA

Type	EF205, EF370
Standards	UL 508, CSA 22.2 No. 14, UL 60947-4-1A
Maximum operational voltage	600 V AC
Trip rating	125 % of FLA
Full load amps (FLA)	See table "Full load amps and short-circuit protective device"
Short-circuit rating RMS symmetrical	See table "Full load amps and short-circuit protective device"
Short-circuit protective device	See table "Full load amps and short-circuit protective device"

Auxiliary circuit according to UL/CSA

Type	EF205, EF370
Contact rating	N.C., 95-96 B600, Q600
	N.O., 97-98 B600, Q600
Conventional thermal current	6 A

Full load amps and short-circuit protective device

Type	Full load amps (FLA)	Short-circuit protective device		600 V AC		SCCR	Fuse type
		480 V AC	Fuse type	SCCR	Fuse type		
EF205-210	210 A	10 kA	400 A, R5/RK5	10kA	400 A, R5/RK5	100 kA	400 A, J
EF370-380	380 A	18 kA	800 A, L/T	18kA	800 A, L/T	-	-

EF205, EF370 electronic overload relays

Technical data

General data

Type	EF205, EF370	
Pollution degree	3	
Phase loss sensitive	Yes	
Ambient air temperature		
Operation	Open - compensated acc. to IEC/EN 60947-4-1	-25 ... +70 °C
Storage		-50 ... +85 °C
Ambient air temperature compensation	Acc. to IEC/EN 60947-4-1	
Maximum operating altitude permissible	2000 m	
Resistance to shock acc. to IEC 60068-2-27	25 g / 11 ms	
Resistance to vibrations acc. to IEC 60068-2-6	5 g / 3 ... 150 Hz	
Mounting position	Position 1-6	
Mounting	Mount on the contactor and tighten the screws of the main circuit terminals	
Degree of protection	housing	IP20
	main circuit terminals	IP00

Electrical connection

Main circuit

Type	EF205		EF370
Connecting capacity			
 Rigid	1 x	16 ... 185 mm ²	50 ... 240 mm ²
	2 x	16 ... 120 mm ²	50 ... 150 mm ²
 Flexible	1 x	16 ... 185 mm ²	50 ... 240 mm ²
	2 x	16 ... 120 mm ²	50 ... 150 mm ²
 Lugs	L ≤	24 mm	32 mm
 Bars	Ø >	8 mm	10 mm
Stranded acc. to UL/CSA	1 x	AWG 6-0000	AWG 1-500 kcmil
	2 x	AWG 6-0000	AWG 1-500 kcmil
Flexible acc. to UL/CSA	1 x	AWG 6-0000	AWG 1-500 kcmil
	2 x	AWG 6-0000	AWG 1-500 kcmil
Stripping length	-		
Tightening torques	18 Nm / 160 lb.in		28 Nm / 247 lb.in
Connection screw	M8		M10

Auxiliary circuit

Type	EF205, EF370	
Connecting capacity		
 Rigid	1 or 2 x	1 ... 4 mm ²
 Flexible with ferrule	1 or 2 x	0.75 ... 2.5 mm ²
 Flexible with insulated ferrule	1 or 2 x	0.75 ... 2.5 mm ²
 Flexible	1 or 2 x	0.75 ... 2.5 mm ²
Stranded acc. to UL/CSA	1 or 2 x	AWG 18-10
Flexible acc. to UL/CSA	1 or 2 x	AWG 18-10
Stripping length	9 mm	
Tightening torques	0.8 ... 1.2 Nm / 7 ... 11 lb.in	
Connection screw	M3.5 (Pozidriv 2)	