



# EF205, EF370 electronic overload relays

## Technical data

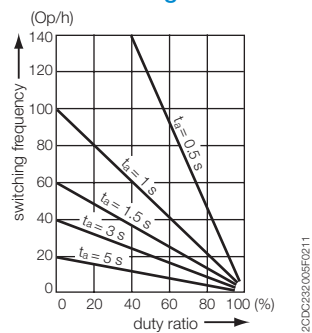
### Main circuit – Utilization characteristics according to IEC/EN

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



$t_a$ : Motor starting time

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### 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			
		480 V AC		SCCR		Fuse type	
		SCCR	Fuse type	SCCR	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	-	-

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## 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 <sup>2</sup> 2 x 16 ... 120 mm <sup>2</sup>	50 ... 240 mm <sup>2</sup> 50 ... 150 mm <sup>2</sup>
 Flexible	1 x 16 ... 185 mm <sup>2</sup> 2 x 16 ... 120 mm <sup>2</sup>	50 ... 240 mm <sup>2</sup> 50 ... 150 mm <sup>2</sup>
 Lugs	L ≤ 24 mm	32 mm
 Bars	Ø > 8 mm	10 mm
Stranded acc. to UL/CSA	1 x AWG 6-0000 2 x AWG 6-0000	AWG 1-500 kcmil AWG 1-500 kcmil
Flexible acc. to UL/CSA	1 x AWG 6-0000 2 x AWG 6-0000	AWG 1-500 kcmil 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 <sup>2</sup>
 Flexible with ferrule	1 or 2 x 0.75 ... 2.5 mm <sup>2</sup>
 Flexible with insulated ferrule	1 or 2 x 0.75 ... 2.5 mm <sup>2</sup>
 Flexible	1 or 2 x 0.75 ... 2.5 mm <sup>2</sup>
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 (Pozi driv 2)