



### Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage $U_i$ IEC/EN	V	690
Rated impulse withstand voltage $U_{imp}$	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current $I_{th} \leq 40^\circ C$	A	20
Operational current $I_e$	AC-1 ( $\leq 40^\circ C$ )	A 20
	AC-1 ( $\leq 55^\circ C$ )	A 18
	AC-1 ( $\leq 70^\circ C$ )	A 15
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 12
	AC-4 (400V)	A 4.8
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	230V	kW 3.2
	400V	kW 5.7
	415V	kW 6.2
	440V	kW 5.5
	500V	kW 5
	690V	kW 5
Rated operational power AC-1 ( $T \leq 40^\circ C$ )	230V	kW 8
	400V	kW 14
	500V	kW 16
	690V	kW 22
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A 12
	48V	A 10
	75V	A 4
	110V	A 3
	220V	A -
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A 15
	48V	A 14
	75V	A 9
	110V	A 8
	220V	A -
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$	A 16
	48V	A 16
	75V	A 10
	110V	A 10
	220V	A 2
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 4 poles in series	$\leq 24V$	A 16
	48V	A 16
	75V	A 10
	110V	A 10

	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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Short-time allowable current for 10s (IEC/EN60947-1)		A	96
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Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	16
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Making capacity (RMS value)		A	120
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Breaking capacity at voltage	440V	A	96
	500V	A	72
	690V	A	72
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Resistance per pole (average value)		mΩ	10
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Power dissipation per pole (average value)	Ith	W	4
	AC-3	W	1.4
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	Ibin	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	Ibin	9
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Max number of wires simultaneously connectable		Nr.	2

Conductor section

AWG/Kcmil			
	max	12	
Flexible w/o lug conductor section	min	mm <sup>2</sup>	0.8
	max	mm <sup>2</sup>	2.5
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5

Power terminal protection according to IEC/EN 60529 IP20

**Mechanical features**

Operating position

	normal allowable	Vertical plan ±30°	
Fixing		Screw / DIN rail 35mm	
Weight		g	200

**Auxiliary contact characteristics**

Thermal current I <sub>th</sub>	A	10	
IEC/EN 60947-5-1 designation	A600		

Operating current AC15

230V	A	3
400V	A	1.9
500V	A	1.4

Operating current DC12

110V	A	2.9
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Operating current DC13

24V	A	2.9
48V	A	1.4
60V	A	1.2
110V	A	0.6
125V	A	0.55
220V	A	0.3
600V	A	0.1

**Operations**

Mechanical life	cycles	2000000	
Electrical life	cycles	500000	

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	500000	
mechanical load	cycles	20000000	

EMC compatibility YES

**AC coil operating**

Rated AC voltage at 60Hz V 230

AC operating voltage

of 60Hz coil powered at 60Hz  
pick-up

min	%Us	75
max	%Us	115

drop-out

		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
	in-rush	VA		30
	holding	VA		4
of 50/60Hz coil powered at 60Hz				
	in-rush	VA		25
	holding	VA		3
of 60Hz coil powered at 60Hz				
	in-rush	VA		30
	holding	VA		4
Dissipation at holding ≤20°C 50Hz			W	0.9
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	3600
<b>Operating times</b>				
Average time for Us control				
in AC				
	Closing NO	min	ms	12
		max	ms	21
	Opening NO	min	ms	9
		max	ms	18
	Closing NC	min	ms	17
		max	ms	26
	Opening NC	min	ms	7
		max	ms	17
in DC				
	Closing NO	min	ms	18
		max	ms	25
	Opening NO	min	ms	2
		max	ms	3
	Closing NC	min	ms	3
		max	ms	5
	Opening NC	min	ms	11
		max	ms	17
<b>UL technical data</b>				
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-phase AC motor				
	at 480V	A		11
	at 600V	A		11
Yielded mechanical performance				
for single-phase AC motor				
	110/120V	HP		0.5
	230V	HP		1.5
for three-phase AC motor				
	200/208V	HP		3

220/240V	HP	3
460/480V	HP	7.5
575/600V	HP	10

General USE

Contactor	AC current	A	20
Short-circuit protection fuse, 600V High fault	Short circuit current	kA	100
	Fuse rating	A	30
	Fuse class		J
Standard fault	Short circuit current	kA	5
	Fuse rating	A	30
	Fuse class		RK5
Contact rating of auxiliary contacts according to UL			A600 - Q600

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

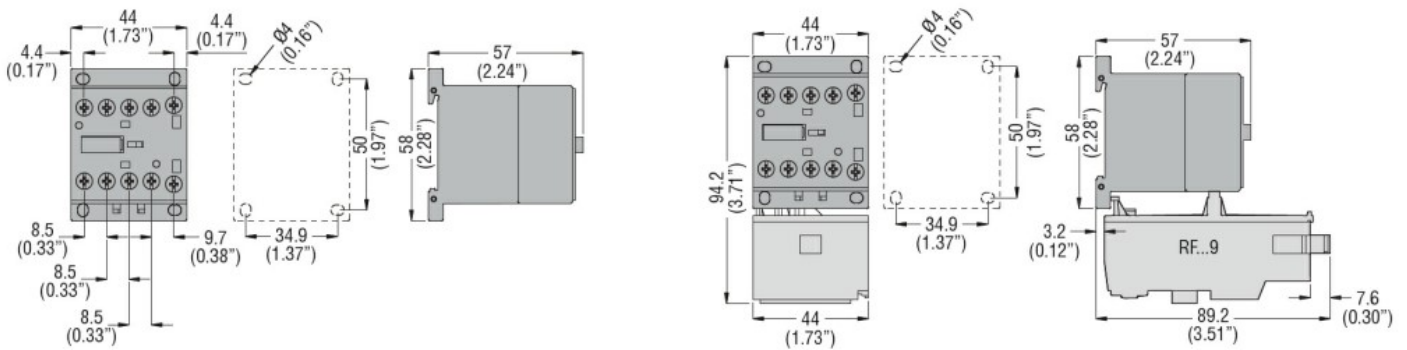
m 3000

Resistance & Protection

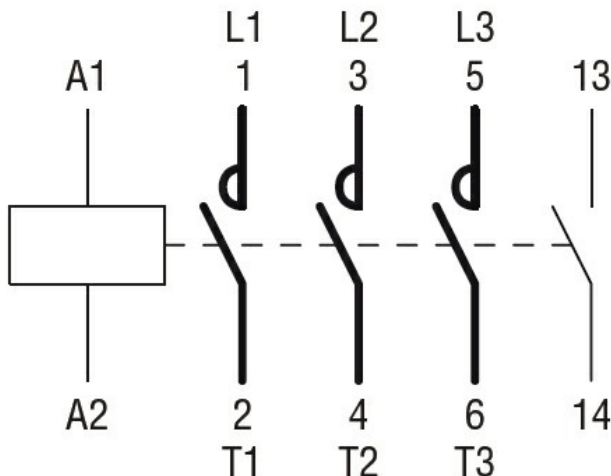
Pollution degree

3

Dimensions



Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60335-2-89

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

#### Certificates

CCC

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

EAC

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching