



### 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	16
Operational current $I_e$	AC-1 ( $\leq 40^\circ C$ )	A 16
	AC-1 ( $\leq 55^\circ C$ )	A 14
	AC-1 ( $\leq 70^\circ C$ )	A 12
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 6
	AC-4 (400V)	A 3.3
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	230V	kW 1.5
	400V	kW 2.2
	415V	kW 2.4
	440V	kW 2.5
	500V	kW 3
	690V	kW 3
Rated operational power AC-1 ( $T \leq 40^\circ C$ )	230V	kW 6
	400V	kW 10
	500V	kW 13
	690V	kW 18
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A 9
	48V	A 8
	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 12
	48V	A 11
	75V	A 7
	110V	A 6
	220V	A -
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$	A 14
	48V	A 14
	75V	A 8
	110V	A 8
	220V	A 1
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 4 poles in series	$\leq 24V$	A 14
	48V	A 14
	75V	A 8
	110V	A 8

	≤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	6
	48V	A	5
	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	7
	48V	A	7
	75V	A	4
	110V	A	3
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	9
	48V	A	9
	75V	A	5
	110V	A	4
	220V	A	0,5
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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	16
	aM (IEC)	A	6
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Making capacity (RMS value)		A	92
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Breaking capacity at voltage	440V	A	72
	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	2.6
	AC-3	W	0.36
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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> 0.75
		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 when properly wired
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	178
<b>Auxiliary contact characteristics</b>			
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600 - Q600
Operating current AC15			
	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12			
	110V	A	2.9
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
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	500000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1 annex F			Yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	24
AC operating voltage			
	of 60Hz coil powered at 60Hz pick-up		
	min	%Us	75

drop-out	max	%Us	115
	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	0.95
<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	4.8
	at 600V	A	3.9
Yielded mechanical performance			
for single-phase AC motor			
	110/120V	HP	0.3
	230V	HP	1

for three-phase AC motor

200/208V	HP	1.5
220/240V	HP	2
460/480V	HP	3
575/600V	HP	3

General USE

Contactor

AC current	A	16
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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

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

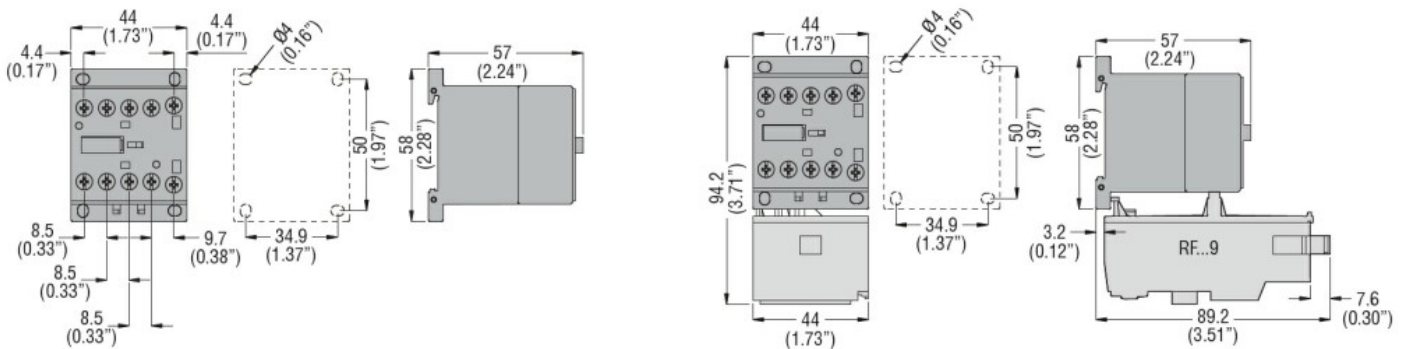
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Resistance & Protection

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