



**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	28
Operational current $I_e$	AC-1 ( $\leq 40^\circ C$ )	A 28
	AC-1 ( $\leq 55^\circ C$ )	A 23
	AC-1 ( $\leq 70^\circ C$ )	A 20
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 12
	AC-4 (400V)	A 7.9
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 10
	400V	kW 18
	500V	kW 23
	690V	kW 32
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A 17
	48V	A 15
	75V	A 13
	110V	A 6
	220V	A -
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A 20
	48V	A 20
	75V	A 18
	110V	A 13
	220V	A 1
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$	A 22
	48V	A 22
	75V	A 20
	110V	A 16
	220V	A 11
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 4 poles in series		

	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	16
	220V	A	12
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	12
	48V	A	11
	75V	A	10
	110V	A	2
	220V	A	–
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	15
	48V	A	13
	75V	A	12
	110V	A	8
	220V	A	2
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	18
	48V	A	18
	75V	A	15
	110V	A	12
	220V	A	6
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	15
	48V	A	15
	75V	A	15
	110V	A	16
	220V	A	7
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Short-time allowable current for 10s (IEC/EN60947-1)		A	150
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Protection fuse	gG (IEC)	A	32
	aM (IEC)	A	12
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Making capacity (RMS value)		A	120
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Breaking capacity at voltage	440V	A	96
	500V	A	96
	690V	A	94
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Resistance per pole (average value)		mΩ	2.5
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Power dissipation per pole (average value)	I <sub>th</sub>	W	2
	AC-3	W	0.4
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Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	I <sub>bin</sub>	1.1
	max	I <sub>bin</sub>	1.5
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	0.8
	max	I <sub>bin</sub>	0.74
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Max number of wires simultaneously connectable		Nr.	2

Conductor section			
AWG/Kcmil		max	10
Flexible w/o lug conductor section			
		min	mm <sup>2</sup> 1
		max	mm <sup>2</sup> 6
Flexible c/w lug conductor section			
		min	mm <sup>2</sup> 1
		max	mm <sup>2</sup> 4
Flexible with insulated spade lug conductor section			
		min	mm <sup>2</sup> 1
		max	mm <sup>2</sup> 4
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Cable stripping length			
	main circuit	mm	10
	command circuit	mm	8
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight			g 360
<b>Auxiliary contact characteristics</b>			
Thermal current I <sub>th</sub>			A 10
IEC/EN 60947-5-1 designation			A600 - P600
Operating current AC15			
	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12			
	110V	A	5.7
Operating current DC13			
	24V	A	5.7
	48V	A	2.9
	60V	A	2.3
	110V	A	1.25
	125V	A	1.1
	220V	A	0.55
	600V	A	0.2
<b>Operations</b>			
Mechanical life			cycles 20000000
Electrical life			cycles 2000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	2000000
	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 50/60Hz			V 24
AC operating voltage			

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 24VAC, 1NC AUXILIARY CONTACT WITH MIRROR CONTACT FUNCTION

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	55

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	85
max	%Us	110

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	75
holding	VA	9

of 50/60Hz coil powered at 60Hz

in-rush	VA	70
holding	VA	6.5

of 60Hz coil powered at 60Hz

in-rush	VA	75
holding	VA	9

Dissipation at holding ≤20°C 50Hz

W	2.5
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Max cycles frequency

Mechanical operation

cycles/h	3600
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	8
max	ms	24

Opening NO

min	ms	10
max	ms	20

Closing NC

min	ms	14
max	ms	28

Opening NC

min	ms	7
max	ms	18

UL technical data

Rated operational voltage AC (UL)

V	600
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Full-load current (FLA) for three-phase AC motor

at 480V	A	11
at 600V	A	11

Yielded mechanical performance

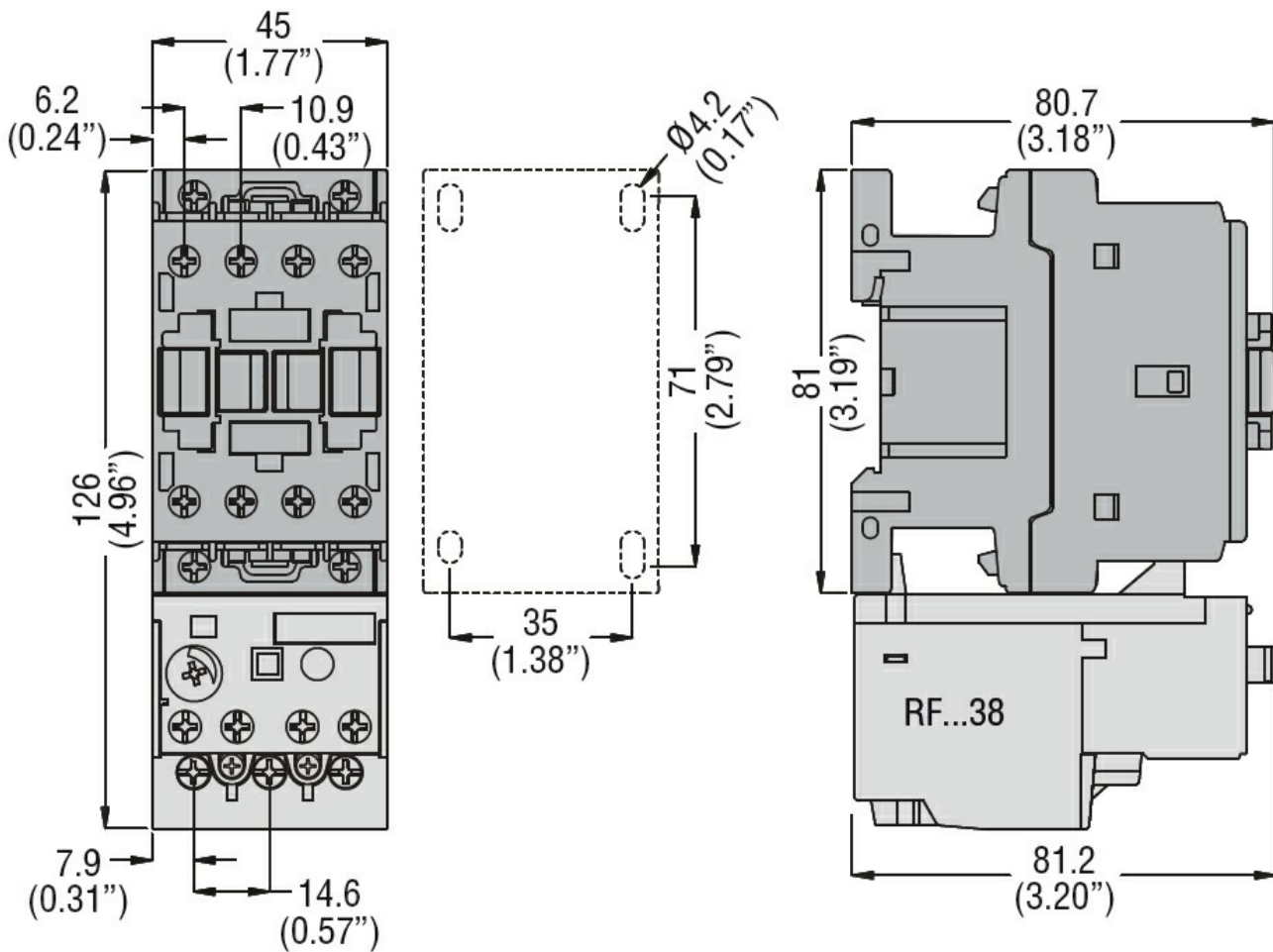
for single-phase AC motor

110/120V	HP	1
230V	HP	2

for three-phase AC motor

200/208V	HP	5
220/240V	HP	5

		460/480V	HP	7.5
		575/600V	HP	10
<b>General USE</b>				
	Contactor	AC current	A	28
	Auxiliary contacts	AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
		DC current	A	1
<b>Short-circuit protection fuse, 600V</b>				
	High fault	Short circuit current	kA	100
		Fuse rating	A	30
		Fuse class		J
	Standard fault	Short circuit current	kA	5
		Fuse rating	A	70
Contact rating of auxiliary contacts according to UL				A600 - P600
<b>Ambient conditions</b>				
<b>Temperature</b>				
	Operating temperature	min	°C	-50
		max	°C	70
	Storage temperature	min	°C	-60
		max	°C	80
Max altitude				m 3000
<b>Resistance &amp; Protection</b>				
Pollution degree				3
<b>Dimensions</b>				



**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/BS 60947-1
- IEC/EN/BS 60947-4-1
- UL 60947-1
- UL 60947-4-1

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Certificates

CCC

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

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

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cULus

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EAC

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UL 60335-2-40 LZGH A2L

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UL 60335-2-89 LZGH A2L

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ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching