



**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	32
Operational current $I_e$	AC-1 ( $\leq 40^\circ C$ )	A 32
	AC-1 ( $\leq 55^\circ C$ )	A 26
	AC-1 ( $\leq 70^\circ C$ )	A 23
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 18
	AC-4 (400V)	A 8.5
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	230V	kW 4
	400V	kW 7.5
	415V	kW 9
	440V	kW 9
	500V	kW 10
	690V	kW 10
Rated operational power AC-1 ( $T \leq 40^\circ C$ )	230V	kW 12
	400V	kW 21
	500V	kW 26
	690V	kW 36
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 15
	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 20
	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	$\leq 24V$	A 22
	48V	A 22
	75V	A 20
	110V	A 16

	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	A	18
	220V	A	13
<hr/>			
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	11
	110V	A	2
	220V	A	–
<hr/>			
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	13
	110V	A	8
	220V	A	2
<hr/>			
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	16
	110V	A	12
	220V	A	6
<hr/>			
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	18
	48V	A	18
	75V	A	16
	110V	A	13
	220V	A	8
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	200
<hr/>			
Protection fuse	gG (IEC)	A	32
	aM (IEC)	A	20
<hr/>			
Making capacity (RMS value)		A	180
<hr/>			
Breaking capacity at voltage	440V	A	144
	500V	A	120
	690V	A	94
<hr/>			
Resistance per pole (average value)		mΩ	2.5
<hr/>			
Power dissipation per pole (average value)	I <sub>th</sub>	W	2.6
	AC-3	W	0.8
<hr/>			
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
<hr/>			
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
<hr/>			
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

Mechanical features

Operating position

normal allowable	Vertical plan ±30°
------------------	--------------------

Fixing

Screw / DIN rail 35mm

Weight

g 368

Auxiliary contact characteristics

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

Operations

Mechanical life

cycles 2000000

Electrical life

cycles 160000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	1600000
mechanical load	cycles	20000000

Mirror contacts according to IEC/EN 60947-4-1 annex F

Yes

EMC compatibility

yes

AC coil operating

Rated AC voltage at 50/60Hz

V 400

AC operating voltage

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 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
---	-----

Max cycles frequency

Mechanical operation

cycles/h	3600
----------	------

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
---	-----

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

at 480V	A	14
at 600V	A	17

Yielded mechanical performance

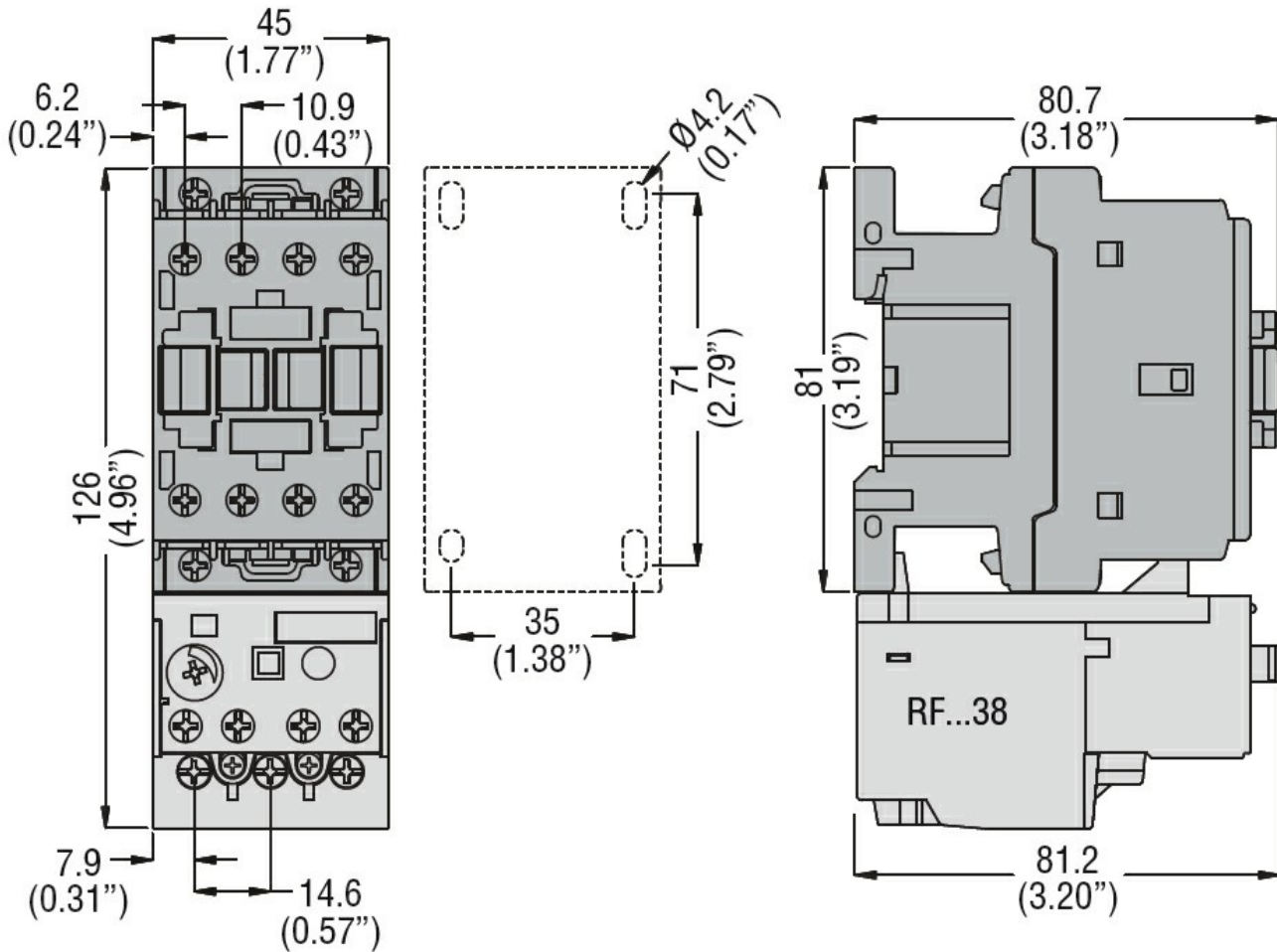
for single-phase AC motor

110/120V	HP	1
230V	HP	3

for three-phase AC motor

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

		460/480V	HP	10
		575/600V	HP	15
<b>General USE</b>				
	Contactor	AC current	A	32
	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	60
		Fuse class		J
	Standard fault	Short circuit current	kA	5
		Fuse rating	A	80
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

---

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