



**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 $I_{th} \leq 40^\circ\text{C}$	A	25
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 25
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 20
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 18
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 9
	AC-4 (400V)	A 4.9
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 2.2
	400V	kW 4.2
	415V	kW 4.5
	440V	kW 4.8
	500V	kW 5.5
	690V	kW 7.5
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 9.5
	400V	kW 16
	500V	kW 21
	690V	kW 27
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 15
	48V	A 13
	75V	A 12
	110V	A 6
	220V	A -
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A 18
	48V	A 18
	75V	A 17
	110V	A 12
	220V	A 1
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A 20
	48V	A 20
	75V	A 20
	110V	A 15
	220V	A 10
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	A 20
	48V	A 20
	75V	A 20
	110V	A 15

	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	16
	220V	A	12
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	10
	48V	A	9
	75V	A	8
	110V	A	2
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	13
	48V	A	11
	75V	A	10
	110V	A	7
	220V	A	2
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	15
	48V	A	15
	75V	A	13
	110V	A	11
	220V	A	6
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	15
	48V	A	15
	75V	A	15
	110V	A	12
	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	25
	aM (IEC)	A	10
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Making capacity (RMS value)		A	90
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Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	71
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Resistance per pole (average value)		mΩ	2.5
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Power dissipation per pole (average value)	Ith	W	1.6
	AC-3	W	0.2
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Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
	max	Ibin	1.5
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	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> 6
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 493
<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>DC coil operating</b>			
DC rated control voltage			V 48
DC operating voltage			

pick-up	min	%Us	70
	max	%Us	125
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drop-out	min	%Us	10
	max	%Us	40

Average coil consumption  $\leq 20^{\circ}\text{C}$

in-rush	W	5.4
holding	W	5.4

**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

in DC

Closing NO

min	ms	54
max	ms	66

Opening NO

min	ms	14
max	ms	17

Closing NC

min	ms	24
max	ms	30

Opening NC

min	ms	47
max	ms	57

**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	7.6
at 600V	A	9

Yielded mechanical performance

for single-phase AC motor

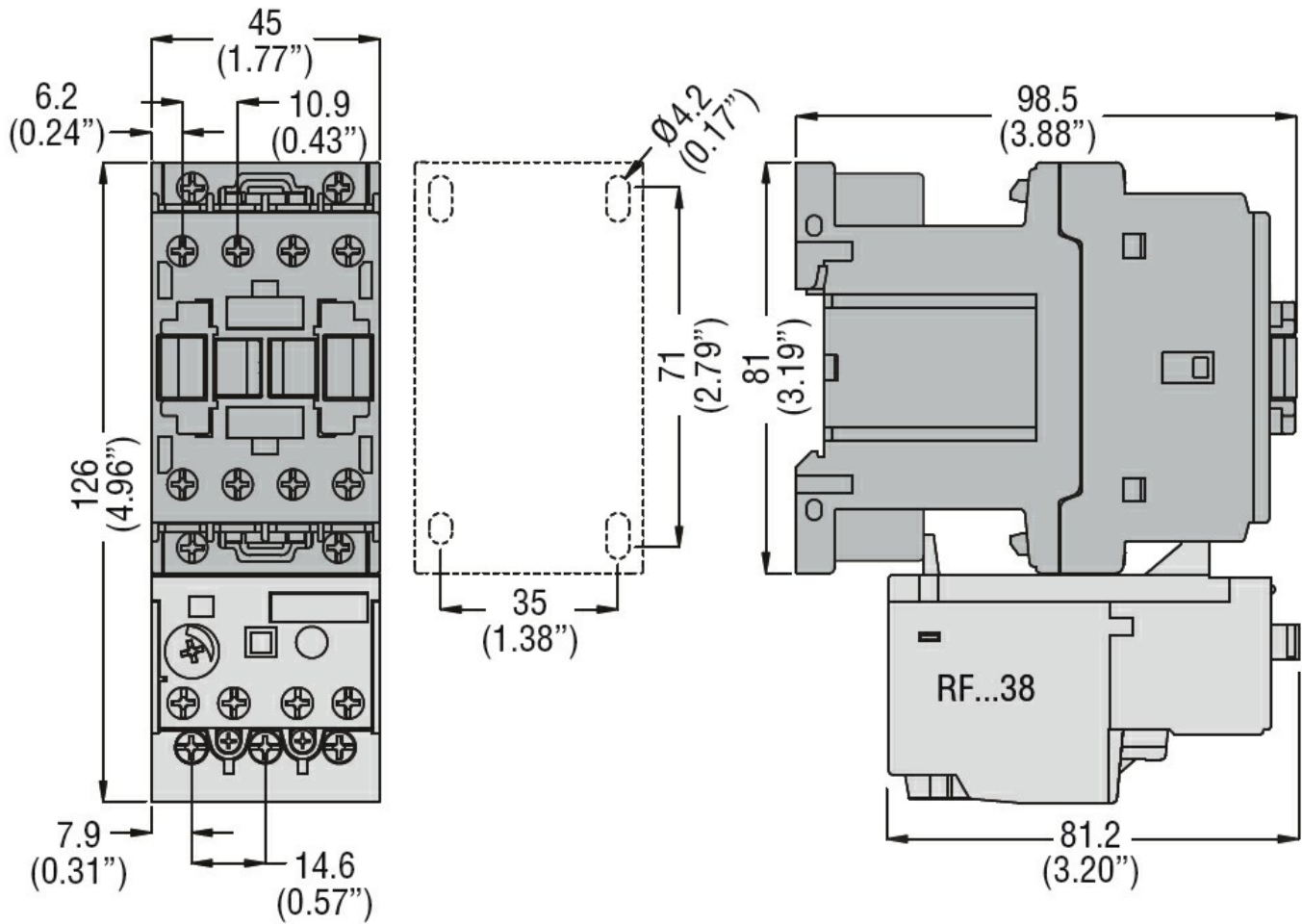
110/120V	HP	0.75
230V	HP	2

for three-phase AC motor

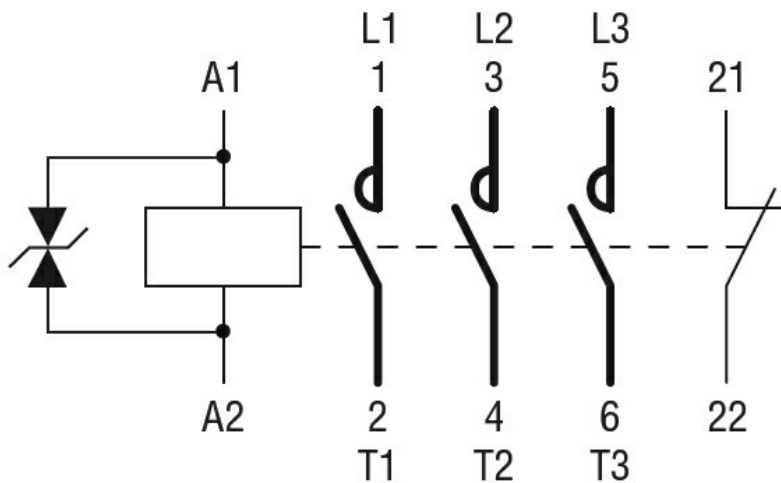
200/208V	HP	3
220/240V	HP	3
460/480V	HP	5
575/600V	HP	7.5

General USE

Contactor		AC current	A	25
Auxiliary contacts		AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
		DC current	A	1
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	60
Contact rating of auxiliary contacts according to UL				A600 - P600
<b>Ambient conditions</b>				
Temperature				
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>				
Impact resistance		""		
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