



Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current $I_{th} \leq 40^\circ C$	A	90
Operational current I_e	AC-1 ($\leq 40^\circ C$)	A 90
	AC-1 ($\leq 55^\circ C$)	A 75
	AC-1 ($\leq 70^\circ C$)	A 65
	AC-3 ($\leq 440V \leq 55^\circ C$)	A 50
	AC-4 (400V)	A 28
Rated operational power AC-3 ($T \leq 55^\circ C$)	230V	kW 11
	400V	kW 22
	415V	kW 22
	440V	kW 22
	500V	kW 22
	690V	kW 30
	1000V	kW 30
Rated operational current AC-3 ($T \leq 55^\circ C$)	230V	A 50
	400V	A 50
	415V	A 50
	440V	A 50
	500V	A 44
	690V	A 39
	1000V	A 23
Rated operational power AC-1 ($T \leq 40^\circ C$)	230V	kW 34
	400V	kW 59
	500V	kW 74
	690V	kW 102
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A 45
	48V	A 40
	75V	A 40
	110V	A 8
	220V	A -
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A 60
	48V	A 60
	75V	A 60

	110V	A	50
	220V	A	7
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IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	60
	48V	A	60
	75V	A	60
	110V	A	55
	220V	A	75
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IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	60
	48V	A	60
	75V	A	60
	110V	A	60
	220V	A	90
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	30
	48V	A	25
	75V	A	22
	110V	A	3
	220V	A	–
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	35
	48V	A	35
	75V	A	30
	110V	A	25
	220V	A	5
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	50
	48V	A	50
	75V	A	45
	110V	A	30
	220V	A	40
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	55
	48V	A	55
	75V	A	55
	110V	A	45
	220V	A	50
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Short-time allowable current for 10s (IEC/EN60947-1)		A	400
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Protection fuse			
	gG (IEC)	A	100
	aM (IEC)	A	50
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Making capacity (RMS value)		A	500
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Breaking capacity at voltage			
	440V	A	400
	500V	A	352
	690V	A	312
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Resistance per pole (average value)		mΩ	0.8
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Power dissipation per pole (average value)			
	I _{th}	W	6.5
	AC-3	W	2
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Tightening torque for terminals			
	min	Nm	4

		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
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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
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Conductor section				
	AWG/Kcmil			
		max		2
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Flexible w/o lug conductor section				
		min	mm ²	1.5
		max	mm ²	35
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Flexible c/w lug conductor section				
		min	mm ²	1.5
		max	mm ²	35
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Power terminal protection according to IEC/EN 60529				
				IP20 front
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Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
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Fixing				
				Screw / DIN rail 35mm
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Weight				
			g	1020
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Operations				
Mechanical life				
			cycles	15000000
Electrical life				
			cycles	1400000
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Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1400000
		mechanical load	cycles	15000000
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EMC compatibility				
				yes
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AC coil operating				
Rated AC voltage at 50/60Hz				
			V	400
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AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
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	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	min	%Us	40
		max	%Us	55
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AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210

	holding	VA	15
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	195
	holding	VA	13
of 60Hz coil powered at 60Hz			
	in-rush	VA	210
	holding	VA	15
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control			
in AC			
Closing NO		min	ms 12
		max	ms 28
Opening NO		min	ms 8
		max	ms 22
in DC			
Closing NO		min	ms 40
		max	ms 85
Opening NO		min	ms 20
		max	ms 55
UL technical data			
Rated operational voltage AC (UL)		V	600
Full-load current (FLA) for three-phase AC motor			
	at 480V	A	52
	at 600V	A	41
Yielded mechanical performance			
for single-phase AC motor			
	110/120V	HP	5
	230V	HP	10
for three-phase AC motor			
	200/208V	HP	15
	220/240V	HP	20
	460/480V	HP	40
	575/600V	HP	40
General USE			
Contactor		AC current	A 90
Short-circuit protection fuse, 600V			
High fault			
	Short circuit current	kA	100
	Fuse rating	A	150
	Fuse class		J
Standard fault			
	Short circuit current	kA	5
	Fuse rating	A	150
	Fuse class		RK5

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

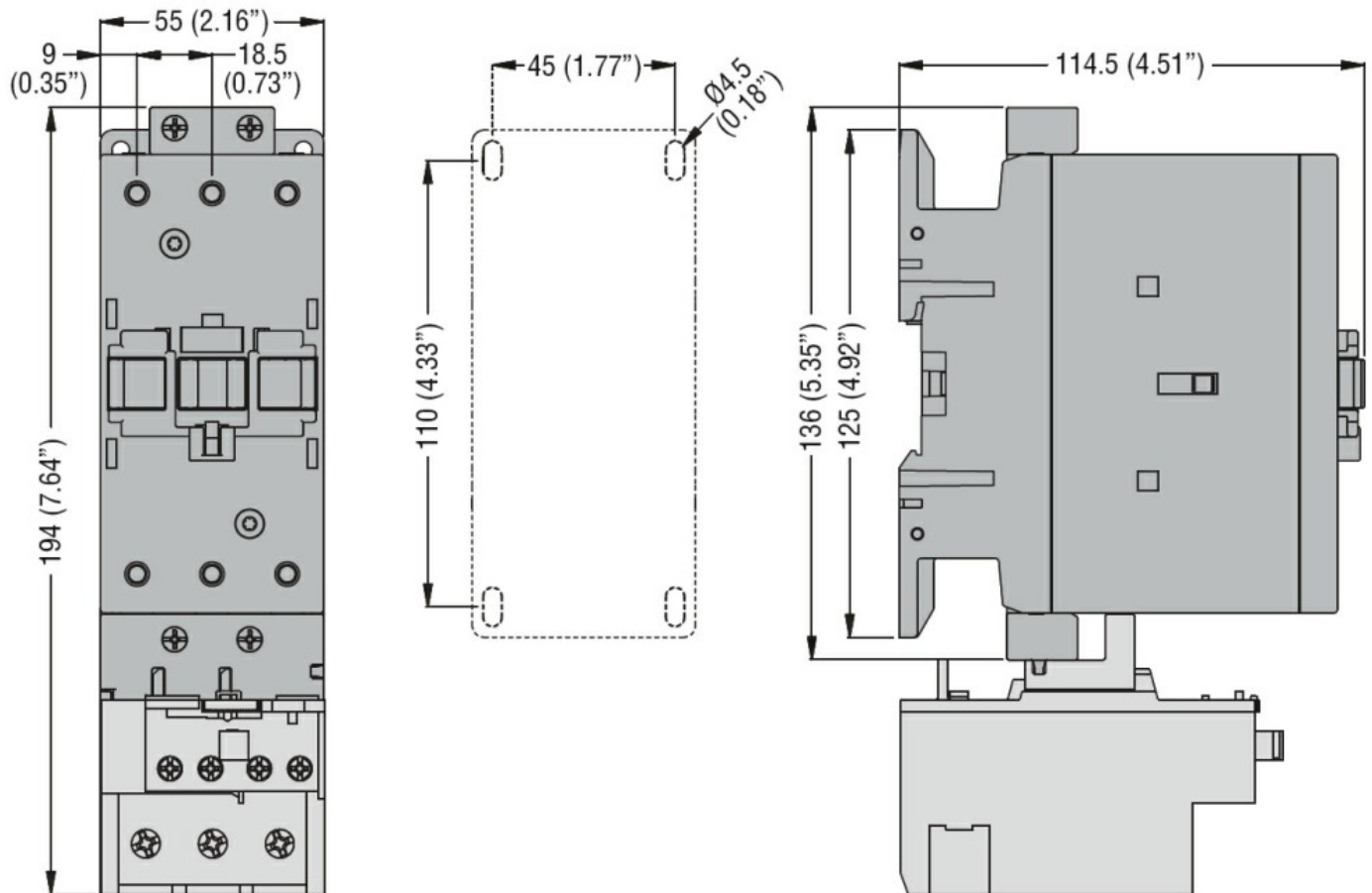
m	3000
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Resistance & Protection

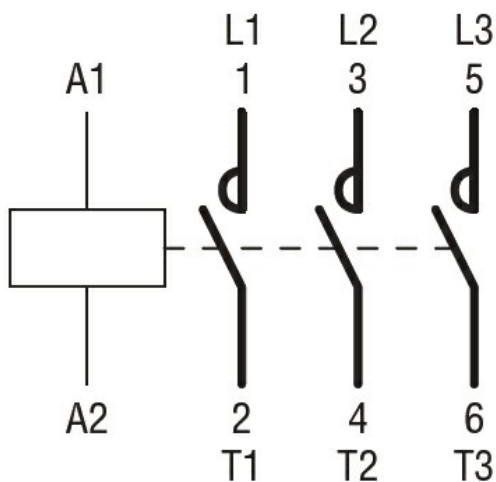
Pollution degree

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/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

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching