



### Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U <sub>i</sub> IEC/EN	V	1000
Rated impulse withstand voltage U <sub>imp</sub>	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I <sub>th</sub> ≤ 40°C	A	90
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 90
	AC-1 (≤55°C)	A 75
	AC-1 (≤70°C)	A 65
	AC-3 (≤440V ≤55°C)	A 50
	AC-4 (400V)	A 28
Rated operational power AC-3 (T≤55°C)	230V	kW 15
	400V	kW 22
	415V	kW 30
	440V	kW 30
	500V	kW 30
	690V	kW 37
	1000V	kW 22
Rated operational current AC-3 (T≤55°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≤40°C)	230V	kW 34
	400V	kW 59
	500V	kW 74
	690V	kW 102
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 45
	48V	A 40
	75V	A 40
	110V	A 8
	220V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 60
	48V	A 60
	75V	A 60

	110V	A	50
	220V	A	7
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IEC max current I <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>th</sub>	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 <sup>2</sup>	1.5	
		max	mm <sup>2</sup>	35	
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Flexible c/w lug conductor section					
		min	mm <sup>2</sup>	1.5	
		max	mm <sup>2</sup>	35	
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Power terminal protection according to IEC/EN 60529				IP20 front	
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<b>Mechanical features</b>					
Operating position					
		normal allowable		Vertical plan ±30°	
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Fixing				Screw / DIN rail 35mm	
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Weight				g	1060
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<b>Operations</b>					
Mechanical life				cycles	15000000
Electrical life				cycles	1400000
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<b>Safety related data</b>					
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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<b>AC coil operating</b>					
Rated AC voltage at 50/60Hz, 60Hz					
		min	V	20	
		max	V	48	
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AC operating voltage					
	of 50/60Hz coil powered at 50Hz				
	pick-up	min	%Us	85 Us min	
	drop-out	max	%Us	≤70 Us min	
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	of 50/60Hz coil powered at 60Hz				
	pick-up	min	%Us	85 Us min	
	drop-out	max	%Us	110 Us max	
		max	%Us	≤70 Us min	
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AC average coil consumption at 20°C					
	of 50/60Hz coil powered at 50Hz				
		in-rush	VA	35...120	
		holding	VA	1.5...3.7	

of 50/60Hz coil powered at 60Hz

	in-rush	VA	35...120
	holding	VA	1.5...3.7
Dissipation at holding ≤20°C 50Hz		W	1...2.5
<b>DC coil operating</b>			
DC rated control voltage	min	V	20
	max	V	48
max		V	48
DC operating voltage			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
Average coil consumption ≤20°C	in-rush	W	23...68
	holding	W	1.2...1,9
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	1500
<b>Operating times</b>			
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
<b>UL technical data</b>			
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	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

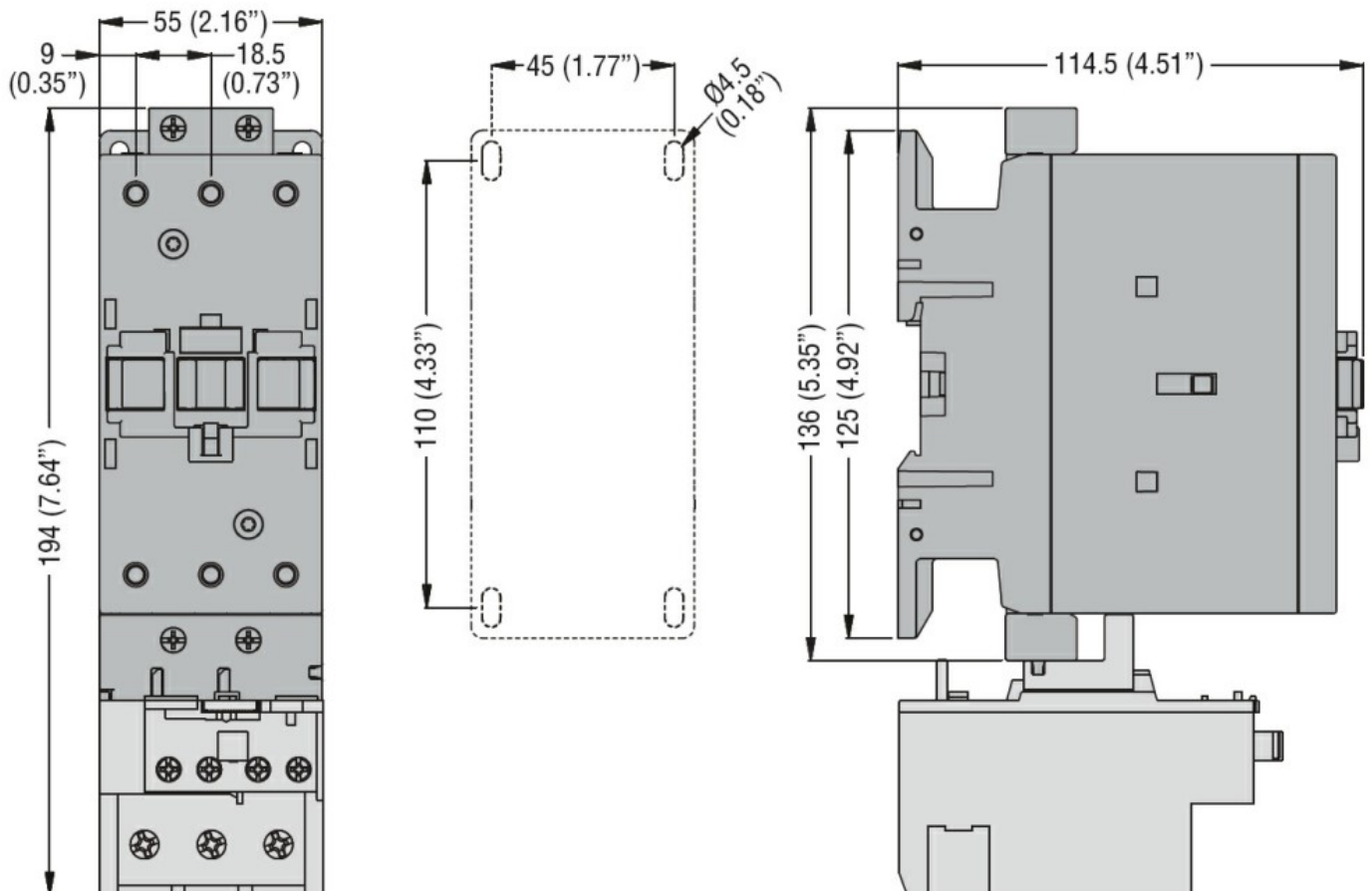
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Resistance & Protection

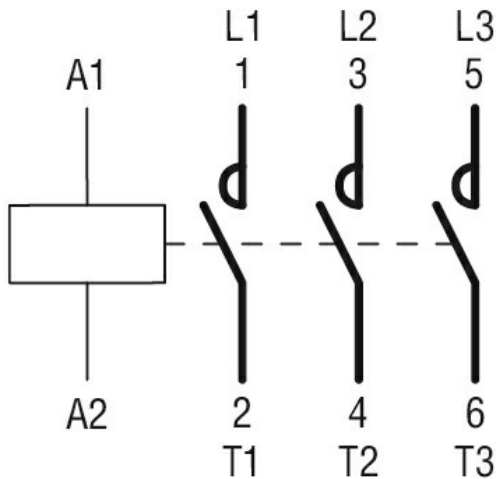
Pollution degree

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/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