



Contact characteristics

Number of poles	Nr.	4	
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 $I_{th} \leq 40^{\circ}\text{C}$	A	165	
Operational current I_e	AC-1 ($\leq 40^{\circ}\text{C}$)	A	165
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	135
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	118
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	150
	AC-4 (400V)	A	70
Rated operational current AC-3 ($T \leq 55^{\circ}\text{C}$)	230V	A	150
	400V	A	150
	415V	A	150
	440V	A	150
	500V	A	128
	690V	A	113
	1000V	A	51
Rated operational power AC-1 ($T \leq 40^{\circ}\text{C}$)	230V	kW	62
	400V	kW	110
	500V	kW	136
	690V	kW	187
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	150
	110V	A	10
	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	165
	48V	A	165
	75V	A	165
	110V	A	150
	220V	A	14
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	165
	110V	A	160
	220V	A	150

IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series

$\leq 24\text{V}$	A	165
48V	A	165
75V	A	165
110V	A	165
220V	A	165

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series

$\leq 24\text{V}$	A	165
48V	A	60
75V	A	44
110V	A	6
220V	A	—

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series

$\leq 24\text{V}$	A	165
48V	A	82
75V	A	70
110V	A	80
220V	A	7

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series

$\leq 24\text{V}$	A	165
48V	A	195
75V	A	110
110V	A	120
220V	A	120

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series

$\leq 24\text{V}$	A	165
48V	A	130
75V	A	130
110V	A	150
220V	A	150

Short-time allowable current for 10s (IEC/EN60947-1)

A	1200
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Protection fuse

gG (IEC)	A	250
aM (IEC)	A	160

Making capacity (RMS value)

A	1500
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Breaking capacity at voltage

440V	A	1200
500V	A	1025
690V	A	905

Resistance per pole (average value)

mΩ	0.45
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Power dissipation per pole (average value)

Ith	W	12
AC-3	W	10.1

Tightening torque for terminals

min	Nm	6
max	Nm	7
min	Ibin	35.4
max	Ibin	44.3

Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	Ibin	0.59
max	Ibin	0.74

Max number of wires simultaneously connectable			Nr.	2
Conductor section				
AWG/Kcmil				
		max	2/0	
Flexible w/o lug conductor section				
		min	mm ²	1.5
		max	mm ²	70
Flexible c/w lug conductor section				
		min	mm ²	1.5
		max	mm ²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal allowable	Vertical plan ±30°	
Fixing				Screw / DIN rail 35mm
Weight			g	2460
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	800000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	800000
		mechanical load	cycles	15000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	20
		max	V	48
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up		min	%Us	85 Us min
		max	%Us	110 Us max
drop-out		max	%Us	≤70 Us min
of 50/60Hz coil powered at 60Hz				
pick-up		min	%Us	85 Us min
		max	%Us	110 Us max
drop-out		max	%Us	≤70 Us min
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz		in-rush	VA	130
		holding	VA	3.5
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	130
		holding	VA	3.5
of 60Hz coil powered at 60Hz				
		in-rush	VA	130
		holding	VA	3.5

Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	1.3...1.5
DC coil operating			
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 $\leq 20^{\circ}\text{C}$			
		in-rush	W 76
		holding	W 1.7
Max cycles frequency			
Mechanical operation		cycles/h	2000
Operating times			
Average time for Us control			
in AC			
Closing NO		min	ms 45
		max	ms 90
Opening NO		min	ms 24
		max	ms 60
in DC			
Closing NO		min	ms 45
		max	ms 90
Opening NO		min	ms 24
		max	ms 60
UL technical data			
Rated operational voltage AC (UL)		V	600
Yielded mechanical performance			
for three-phase AC motor			
200/208V		HP	50
220/240V		HP	50
460/480V		HP	100
575/600V		HP	125
General USE			
Contactor		AC current	A 165
Short-circuit protection fuse, 600V			
High fault			
Short circuit current		kA	100
Fuse rating		A	200
Fuse class			J
Standard fault			
Short circuit current		kA	10
Fuse rating		A	250
Fuse class			RK5
Ambient conditions			

Temperature

Operating temperature

min	°C	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

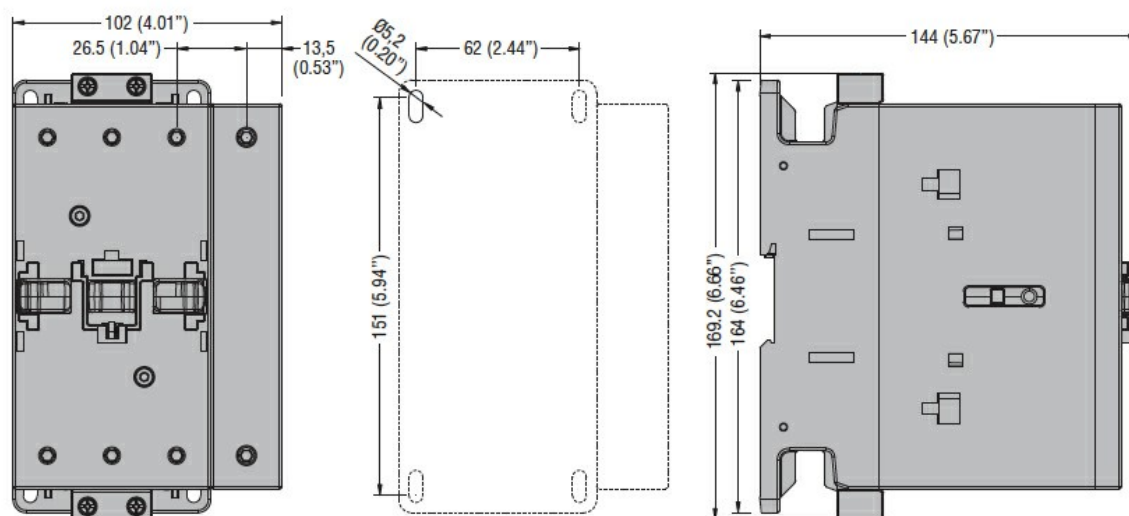
m	3000
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Resistance & Protection

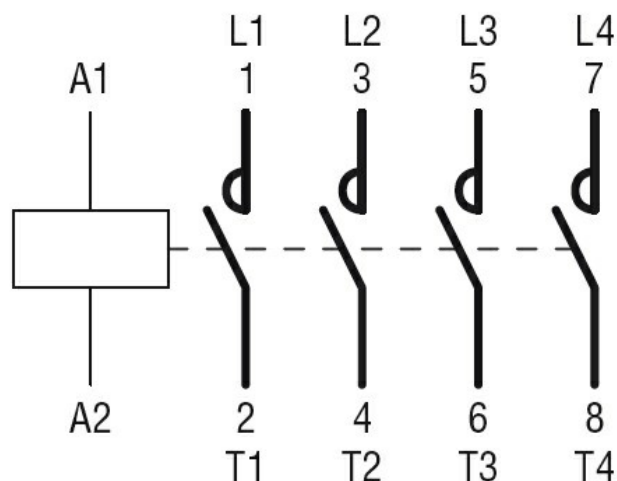
Pollution degree

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

EAC

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching