



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)

I_{th}	W	12
AC-3	W	10.1

Tightening torque for terminals

min	Nm	6
max	Nm	7
min	I_{bin}	35.4
max	I_{bin}	44.3

Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	I_{bin}	0.59
max	I_{bin}	0.74

Max number of wires simultaneously connectable			Nr.	2
Conductor section				
AWG/Kcmil		max		2/0
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	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 mechanical load	cycles 800000 cycles 15000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
			min	V 100
			max	V 250
AC operating voltage				
of 50/60Hz coil powered at 50Hz pick-up			min	%Us 80 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 80 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 holding	VA 130 3.5
of 50/60Hz coil powered at 60Hz				
			in-rush holding	VA 130 3.5
of 60Hz coil powered at 60Hz				
			in-rush holding	VA 130 3.5

Dissipation at holding ≤20°C 50Hz		W	1.3...1.5
DC coil operating			
DC rated control voltage		min	V 100
		max	V 250
max		V	250
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 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

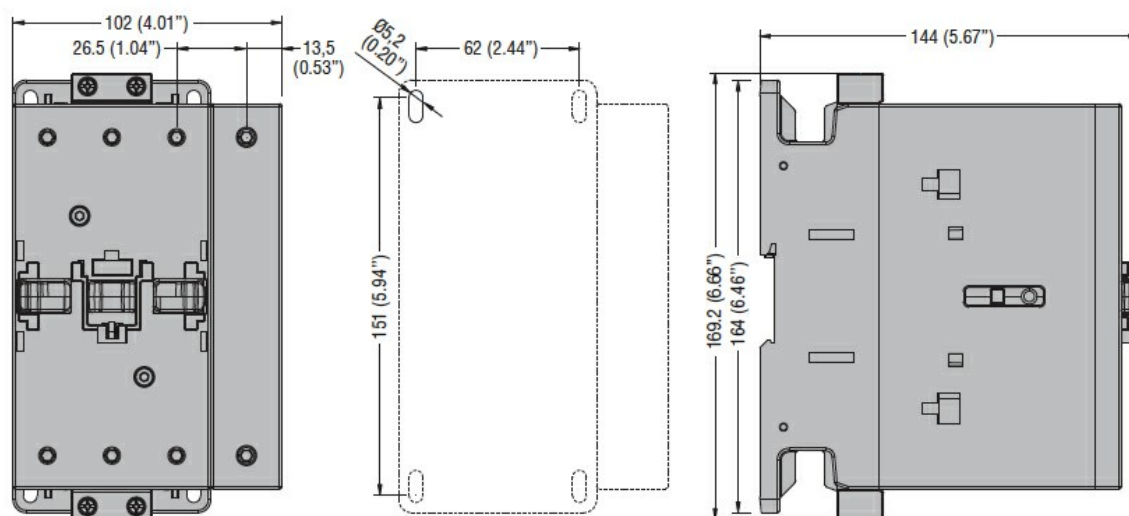
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Resistance & Protection

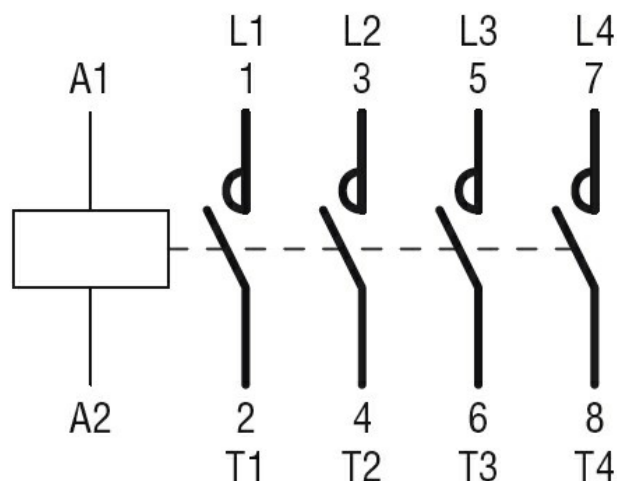
Pollution degree

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