



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 $I_{th} \leq 40^\circ\text{C}$	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 power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 45
	400V	kW 75
	415V	kW 75
	440V	kW 75
	500V	kW 90
	690V	kW 110
	1000V	kW 55
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 Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	160
	220V	A	150
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	165
	220V	A	165
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	165
	48V	A	60
	75V	A	44
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	165
	48V	A	82
	75V	A	70
	110V	A	80
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	165
	48V	A	195
	75V	A	110
	110V	A	120
	220V	A	120
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	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
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	1025
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
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
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	2060
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

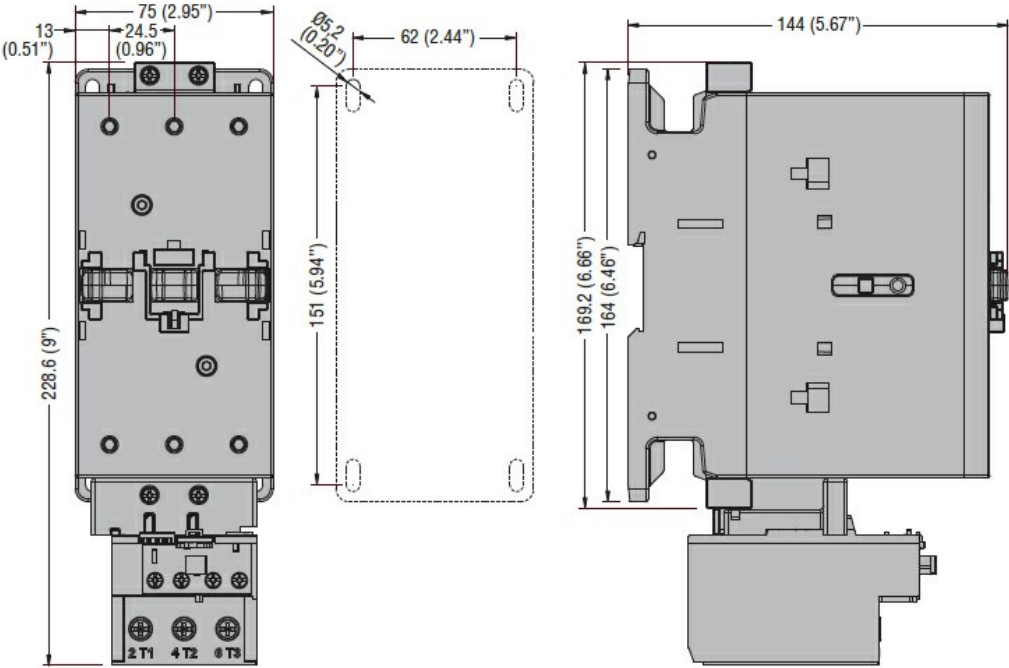
m	3000
---	------

Resistance & Protection

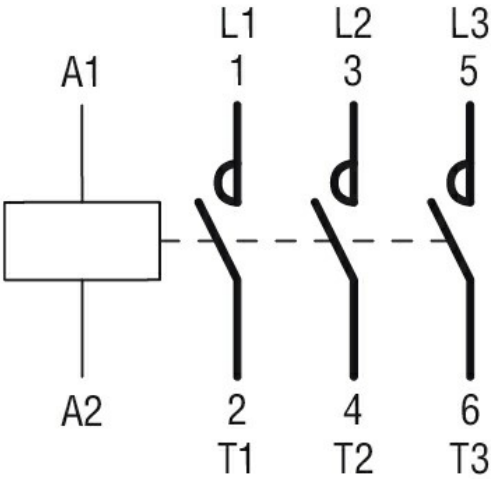
Pollution degree

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