



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	115
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	400V	A 115
	600V	A 100
	800V	A 90
	1000V	A 80
Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse	gG (IEC)	A 125
	aM (IEC)	A 80
Resistance per pole (average value)	mΩ	0.6
Power dissipation per pole (average value)	I_{th}	W 7.9
Tightening torque for terminals	min	Nm 4
	max	Nm 5
	min	lbin 2.95
	max	lbin 3.69
Tightening torque for coil terminal	min	Nm 0.8
	max	Nm 1
	min	lbin 0.59
	max	lbin 0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section	AWG/Kcmil	
	max	2
Flexible w/o lug conductor section	min	mm ² 1.5
	max	mm ² 35
Flexible c/w lug conductor section	min	mm ² 1.5
	max	mm ² 35
Power terminal protection according to IEC/EN 60529		IP20 front

Mechanical features

Operating position	normal allowable	Vertical plan ±30°
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Fixing	Screw / DIN rail 35mm		
Weight	g	1280	
Operations			
Mechanical life	cycles	15000000	
Safety related data			
Performance level B10d according to EN/ISO 13489-1	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	min	%Us	80 Us min
pick-up	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
of 50/60Hz coil powered at 60Hz	min	%Us	80 Us min
pick-up	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	90
	holding	VA	2.7
of 50/60Hz coil powered at 60Hz	in-rush	VA	90
	holding	VA	2.7
of 60Hz coil powered at 60Hz	in-rush	VA	90
	holding	VA	2.7
Dissipation at holding ≤20°C 50Hz	W	1...2.5	
DC coil operating			
DC rated control voltage	min	V	20
	max	V	48
max		V	48
DC operating voltage			
pick-up	min	%Us	85 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
Average coil consumption ≤20°C	in-rush	W	67
	holding	W	1.3
Max cycles frequency			
Mechanical operation	cycles/h	1500	
Operating times			

Average time for Us control
in AC

Closing NO

min	ms	40
max	ms	85

Opening NO

min	ms	20
max	ms	55

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
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General USE

Contactor

AC current	A	115
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4 poles in series DC1

600V	A	100
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Ambient conditions

Temperature

Operating temperature

min	°C	-40
max	°C	70

Storage temperature

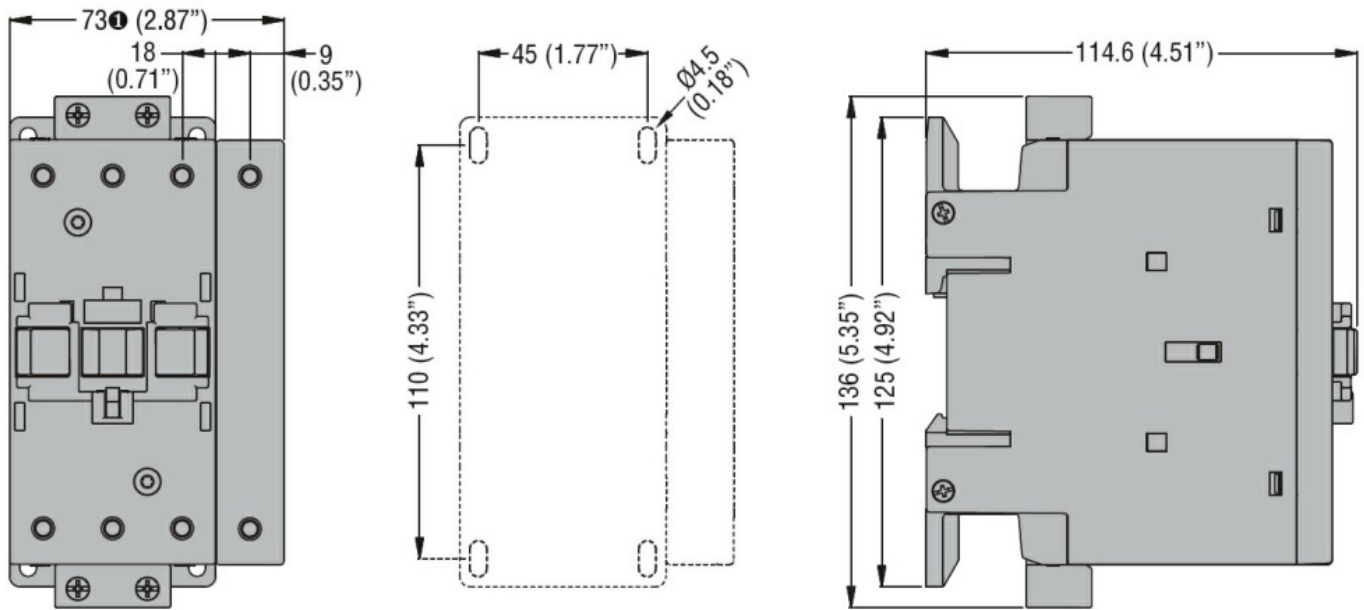
min	°C	-50
max	°C	80

Max altitude	m	3000
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Resistance & Protection

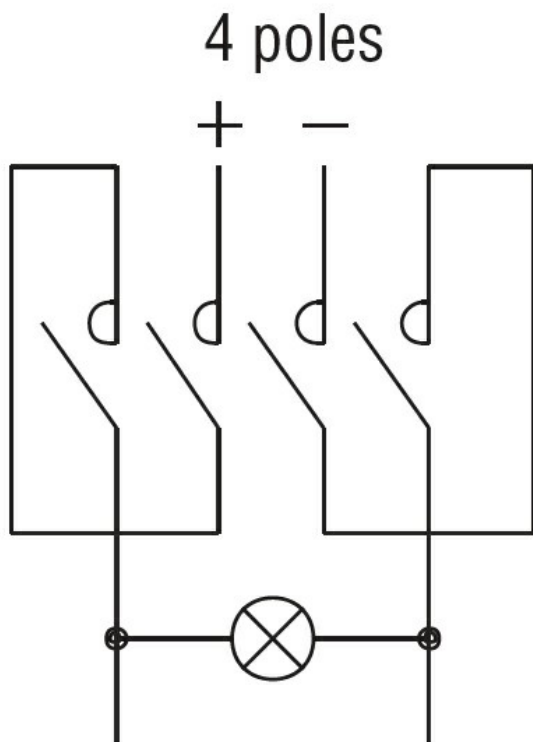
Pollution degree	3
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Dimensions



① BF80T2 82mm/3.23"

Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

cULus

ETIM classification

ETIM 8.0

EC002552 -
Power contactor,
DC switching