



Contact characteristics

Number of poles	Nr.	4
Rated insulation voltage Ui IEC/EN	V	1000
Rated impulse withstand voltage Uimp	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current Ith ≤ 40°C	A	115
Operational current Ie	AC-1 (≤40°C)	A 115
	AC-1 (≤55°C)	A 95
	AC-1 (≤70°C)	A 80
	AC-3 (≤440V ≤55°C)	A 80
	AC-4 (400V)	A 38
Rated operational current AC-3 (T≤55°C)	230V	A 80
	400V	A 80
	415V	A 80
	440V	A 80
	500V	A 78
	690V	A 57
	1000V	A 28
Rated operational power AC-1 (T≤40°C)	230V	kW 43
	400V	kW 76
	500V	kW 95
	690V	kW 120
Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse	gG (IEC)	A 125
	aM (IEC)	A 80
Making capacity (RMS value)	A	800
Breaking capacity at voltage	440V	A 640
	500V	A 625
	690V	A 456
Resistance per pole (average value)	mΩ	0.6
Power dissipation per pole (average value)	Ith	W 7.9
	AC-3	W 3.8
Tightening torque for terminals	min	Nm 4
	max	Nm 5
	min	Ibin 2.95
	max	Ibin 3.69

Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	lbin	0.8
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°

Fixing

Screw / DIN rail
35mm

Weight

g 1360

Operations

Mechanical life

cycles 15000000

Electrical life

cycles 1300000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	1300000
mechanical load	cycles	15000000

EMC compatibility

yes

AC coil operating

Rated AC voltage at 60Hz

V 230

AC operating voltage

of 60Hz coil powered at 60Hz
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	55

AC average coil consumption at 20°C

of 60Hz coil powered at 60Hz

in-rush	VA	210
holding	VA	15

Dissipation at holding ≤20°C 50Hz

W 5

Max cycles frequency

Mechanical operation

cycles/h 3600

Operating times

Average time for Us control

in AC

Closing NO

min ms 12

in DC	Opening NO	max	ms	28
		min	ms	8
	Closing NC	max	ms	22
		min	ms	11
	Opening NC	max	ms	29
		min	ms	6
	Closing NO	max	ms	14
		min	ms	40
	Opening NO	max	ms	85
		min	ms	20
		max	ms	55
		min	ms	20

UL technical data

Rated operational voltage AC (UL)	V	600
Full-load current (FLA) for three-phase AC motor		
at 480V	A	77
at 600V	A	77

Yielded mechanical performance

for three-phase AC motor

200/208V	HP	25
220/240V	HP	30
460/480V	HP	60
575/600V	HP	75

General USE

Contactor

AC current	A	115
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Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

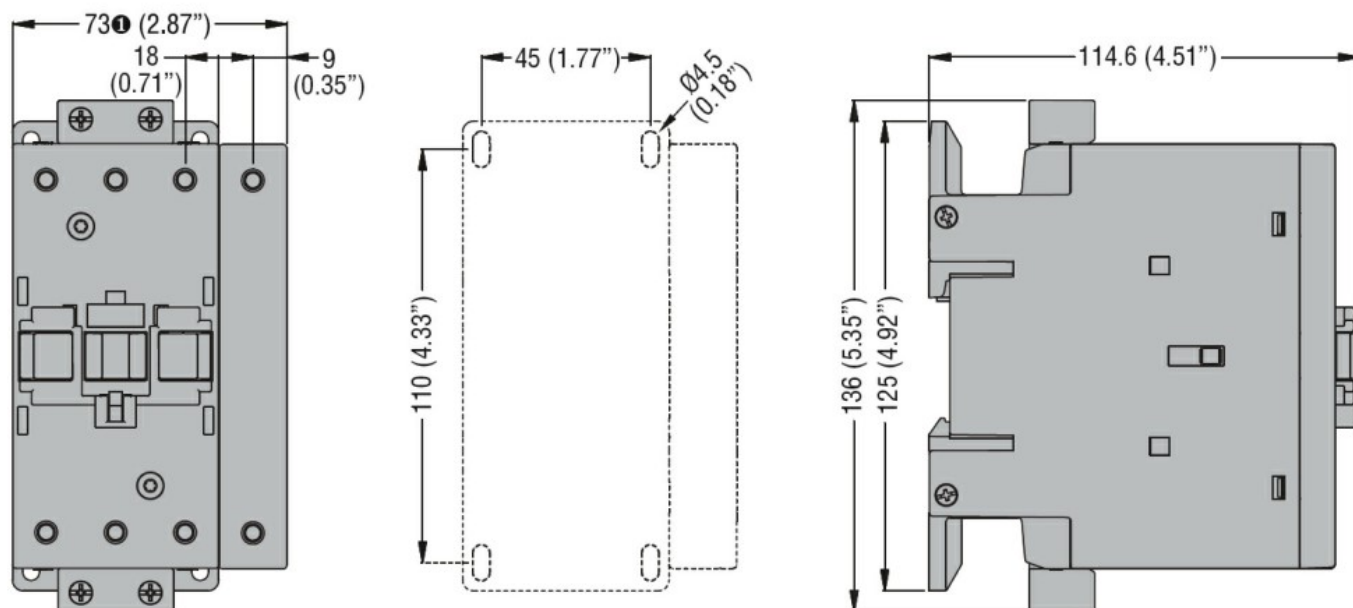
min	°C	-60
max	°C	80

Max altitude	m	3000
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Resistance & Protection

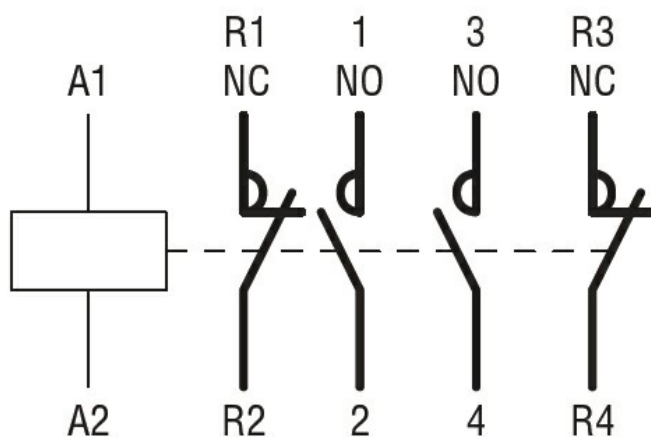
Pollution degree	3
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Dimensions



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 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