



Product designation

Power contactor

Product type designation

BF80

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}	A	115
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 115
	AC-1 ($\leq 55^\circ\text{C}$)	A 95
	AC-1 ($\leq 70^\circ\text{C}$)	A 80
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 80
	AC-4 (400V)	A 38
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	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)	m Ω	0.6
Power dissipation per pole (average value)	I_{th}	W 7.9
	AC3	W 3.8
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 0.8
	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
Conductor section			
AWG/kcmil conductor section		max	2
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
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	230
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up		min	%Us 80
		max	%Us 110
drop-out		min	%Us 20
		max	%Us 55
of 50/60Hz coil powered at 60Hz			
pick-up		min	%Us 85
		max	%Us 110
drop-out		min	%Us 40
		max	%Us 55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
		in-rush	VA 210
		holding	VA 15
of 50/60Hz coil powered at 60Hz			
		in-rush	VA 195
		holding	VA 13

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
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	12
max	ms	28

Opening NO

min	ms	8
max	ms	22

Closing NC

min	ms	11
max	ms	29

Opening NC

min	ms	6
max	ms	14

in DC

Closing NO

min	ms	40
max	ms	85

Opening NO

min	ms	20
max	ms	55

UL technical data

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
220/230V	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

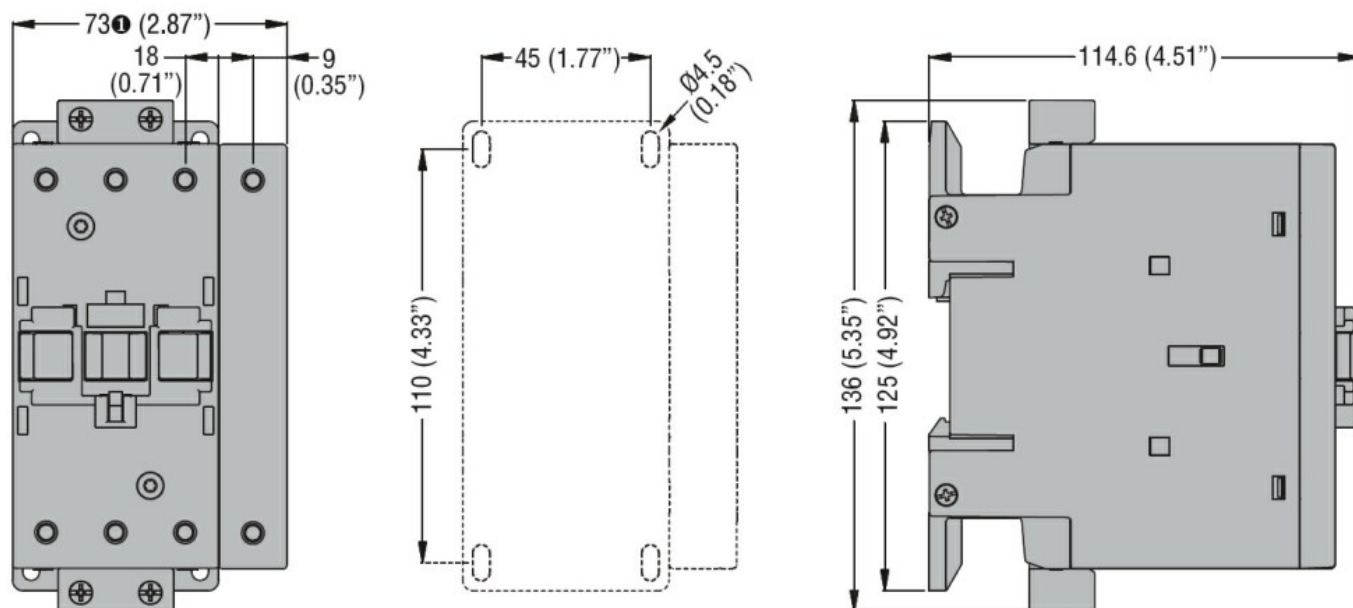
m	3000
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Resistance & Protection

Pollution degree

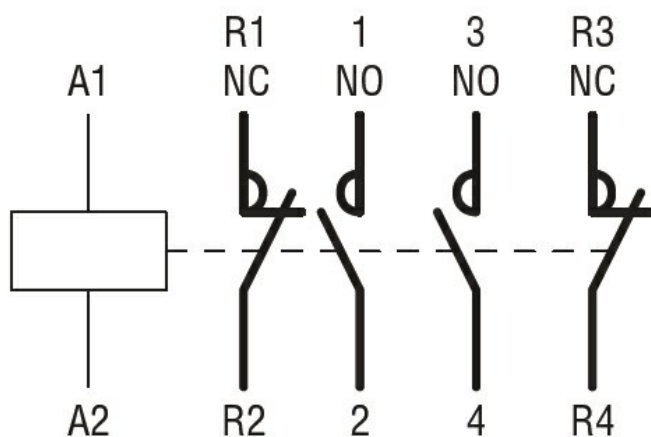
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Dimensions



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 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching