



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 (≤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)	I _{th}	W	7.9
	AC-3	W	3.8
Tightening torque for terminals	min	Nm	4
	max	Nm	5

	min	I _{bin}	2.95
	max	I _{bin}	3.69
<hr/>			
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.8
	max	I _{bin}	0.74
<hr/>			
Max number of wires simultaneously connectable		Nr.	2
<hr/>			
Conductor section			
AWG/Kcmil			
	max		2
<hr/>			
Flexible w/o lug conductor section	min	mm ²	1.5
	max	mm ²	35
<hr/>			
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	35
<hr/>			
Power terminal protection according to IEC/EN 60529			IP20 front
<hr/>			
Mechanical features			
Operating position		normal allowable	Vertical plan ±30°
<hr/>			
Fixing			Screw / DIN rail 35mm
<hr/>			
Weight		g	1360
<hr/>			
Conductor section			
AWG/kcmil conductor section			
	max		2
<hr/>			
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1300000
<hr/>			
Safety related data			
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles 1300000 cycles 15000000
<hr/>			
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			yes
<hr/>			
AC coil operating			
Rated AC voltage at 50/60Hz		V	110
<hr/>			
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
<hr/>			
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
----------	------

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
------------	---	-----

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

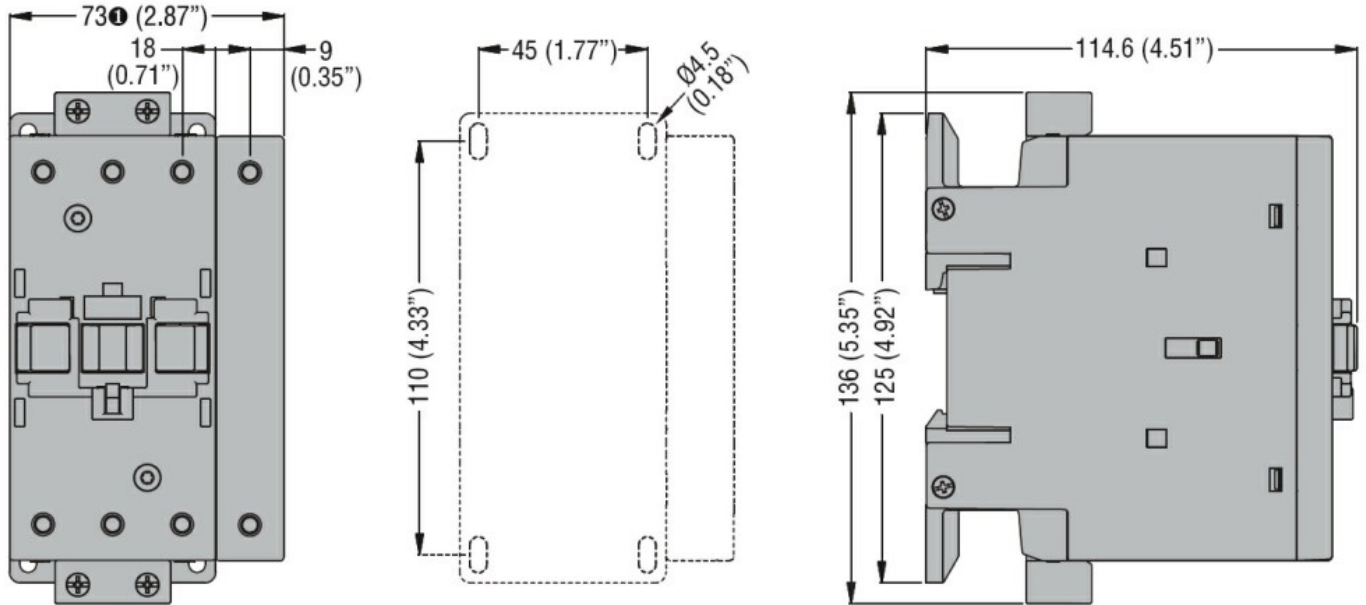
min	°C	-60
max	°C	80
Max altitude		m 3000

Resistance & Protection

Pollution degree

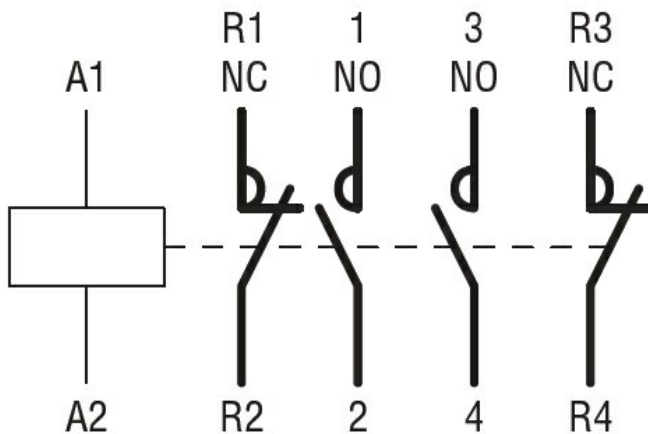
3

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

- CCC
- cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching