



Product designation	Power contactor		
Product type designation	BF80		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage U <sub>i</sub> IEC/EN	V	1000	
Rated impulse withstand voltage U <sub>imp</sub>	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I <sub>th</sub>	A	115	
Operational current I <sub>e</sub>	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 <sub>th</sub>	W	7.9
	AC-3	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 <sup>2</sup>	1.5
		max	mm <sup>2</sup>	35
Flexible c/w lug conductor section				
		min	mm <sup>2</sup>	1.5
		max	mm <sup>2</sup>	35
Power terminal protection according to IEC/EN 60529				IP20 front
<b>Mechanical features</b>				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	1360
Conductor section				
	AWG/kcmil conductor section			
		max		2
<b>Operations</b>				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
<b>Safety related data</b>				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contats according to IEC/EN 609474-4-1				YES
EMC compatibility				yes
<b>AC coil operating</b>				
Rated AC voltage at 60Hz			V	575
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
<b>Max cycles frequency</b>				

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
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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**

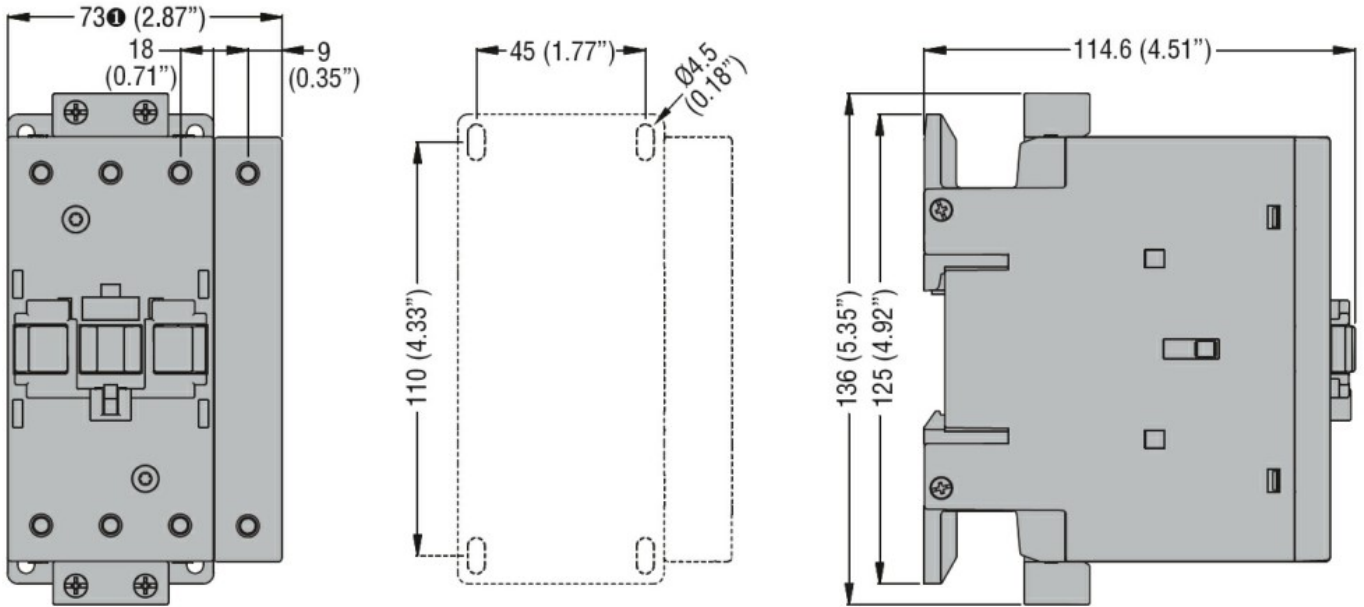
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
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Storage temperature			
	min	°C	-60
	max	°C	80

Max altitude	m	3000
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**Resistance & Protection**

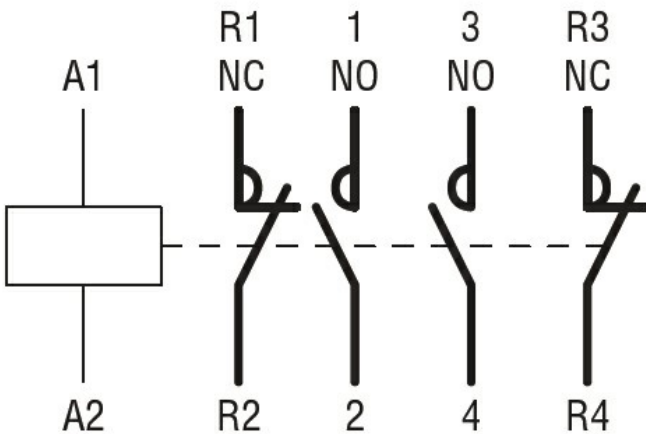
Pollution degree	3
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**Dimensions**



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/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