



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	120
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**

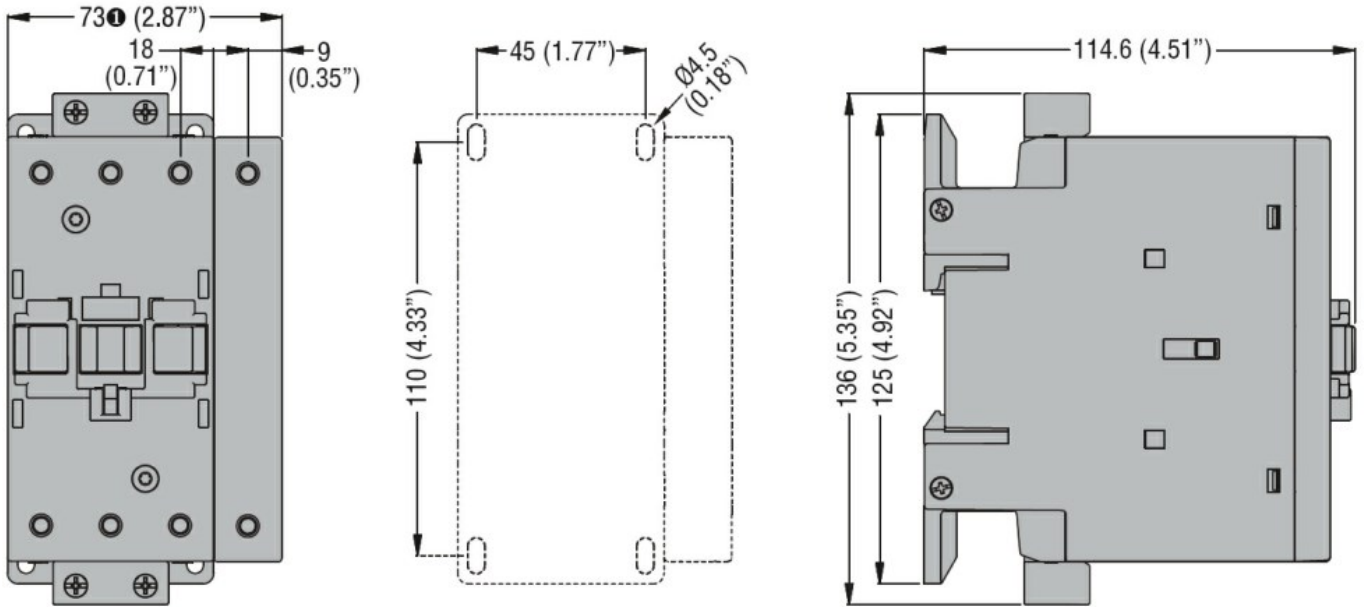
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	<hr/> Storage temperature			
		min	°C	-60
		max	°C	80

Max altitude		m	3000
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**Resistance & Protection**

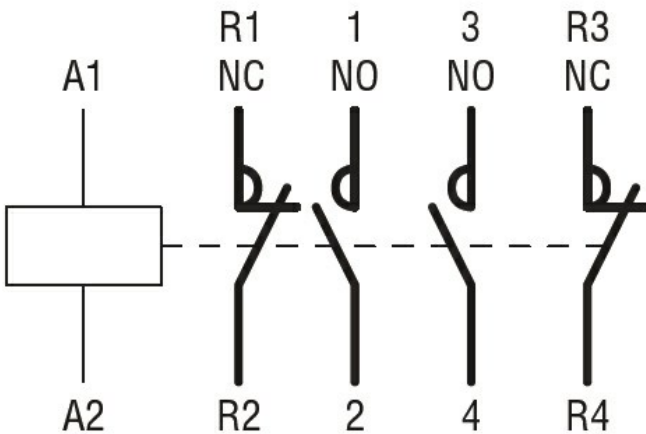
Pollution degree		3
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**Dimensions**



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