



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	Ibin	2.95	
		max	Ibin	3.69	
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Tightening torque for coil terminal					
		min	Nm	0.8	
		max	Nm	1	
		min	Ibin	0.8	
		max	Ibin	0.74	
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Max number of wires simultaneously connectable				Nr.	2
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Conductor section					
	AWG/Kcmil				
		max		2	
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Flexible w/o lug conductor section					
		min	mm ²	1.5	
		max	mm ²	35	
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Flexible c/w lug conductor section					
		min	mm ²	1.5	
		max	mm ²	35	
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Power terminal protection according to IEC/EN 60529				IP20 front	
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Mechanical features					
Operating position					
		normal allowable		Vertical plan ±30°	
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Fixing				Screw / DIN rail 35mm	
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Weight				g	1360
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Conductor section					
	AWG/kcmil conductor section				
		max		2	
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Operations					
Mechanical life				cycles	15000000
Electrical life				cycles	1300000
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Safety related data					
Performance level B10d according to EN/ISO 13489-1					
		rated load	cycles	1300000	
		mechanical load	cycles	15000000	
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Mirror contacts according to IEC/EN 60947-4-1				YES	
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EMC compatibility				yes	
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AC coil operating					
Rated AC voltage at 60Hz				V	460
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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	
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AC average coil consumption at 20°C					
	of 60Hz coil powered at 60Hz				
		in-rush	VA	210	
		holding	VA	15	
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Dissipation at holding ≤20°C 50Hz				W	5
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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	
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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

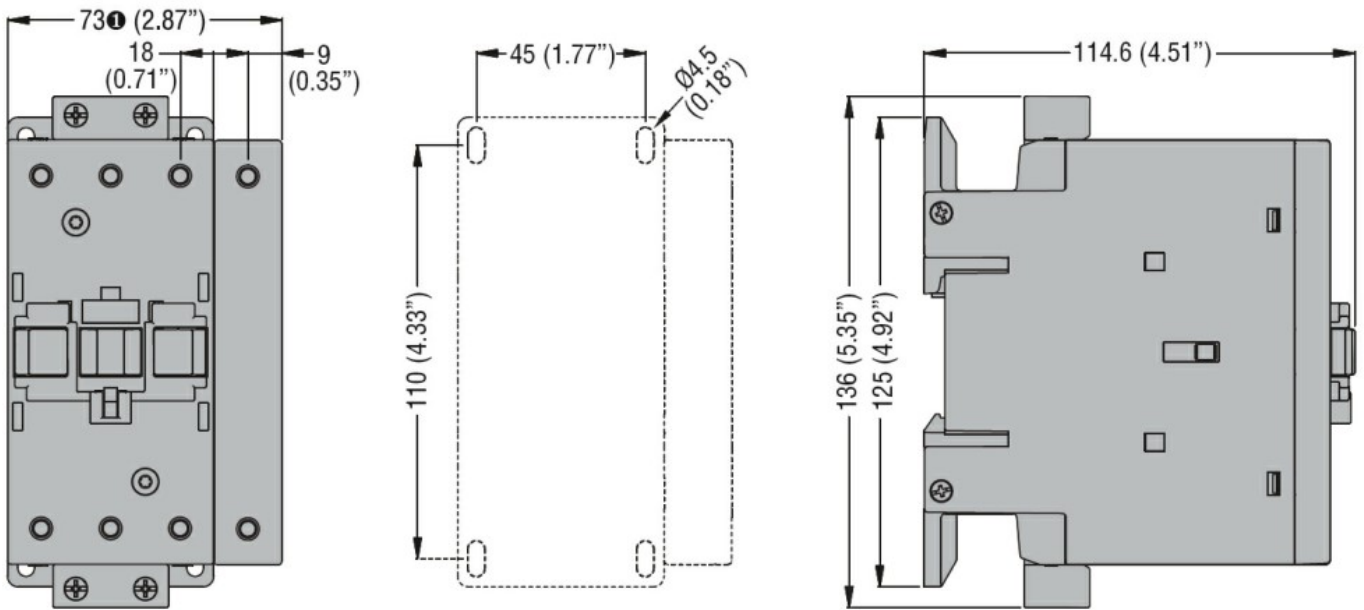
Temperature				
	Operating temperature			
	min	°C		-50
	max	°C		70
	Storage temperature			
	min	°C		-60
	max	°C		80

Max altitude		m		3000
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Resistance & Protection

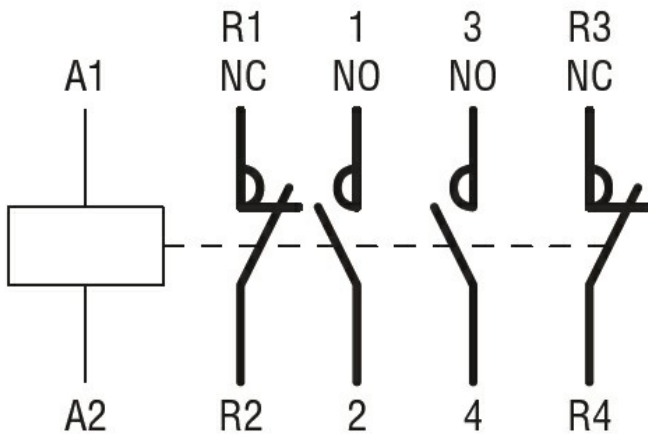
Pollution degree				3
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Dimensions



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