



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 current AC-3 ($T \leq 55^\circ\text{C}$)		
	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 ($T \leq 40^\circ\text{C}$)		
	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
	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
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.8
	max	I _{bin}	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
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
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 60Hz		V	48
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min	%U _s	80
	max	%U _s	110
drop-out	min	%U _s	20
	max	%U _s	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
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for U _s 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

Rated operational voltage AC (UL)	V	600
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

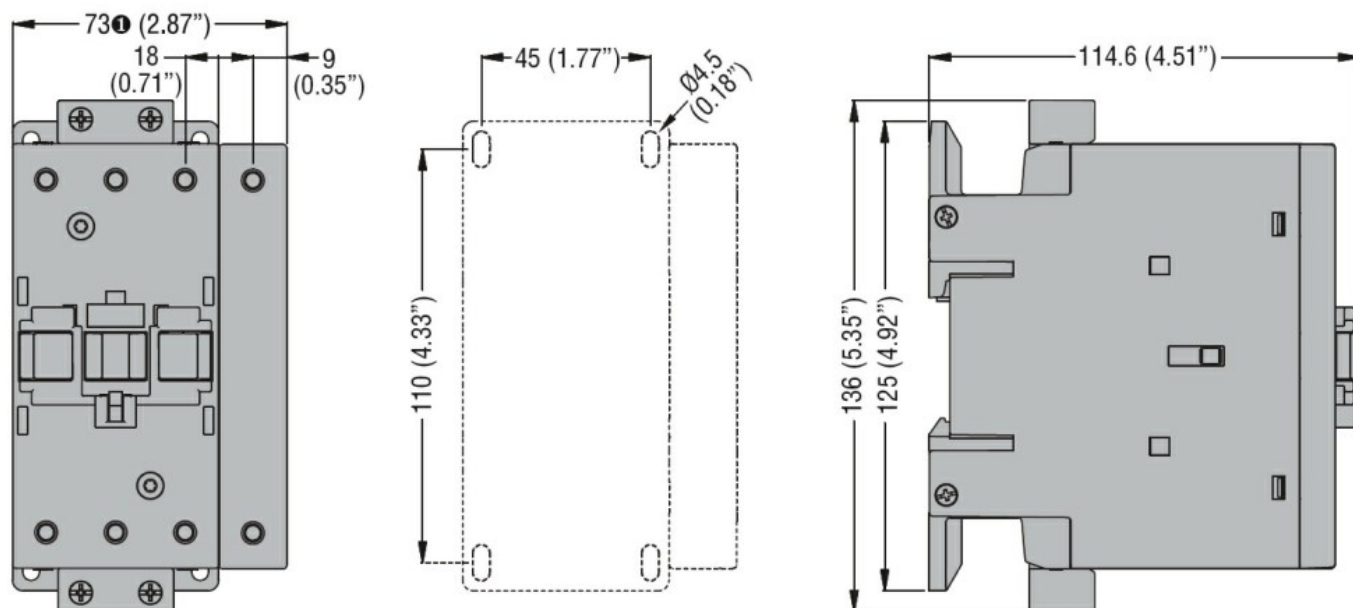
Ambient conditions

Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude	m	3000	

Resistance & Protection

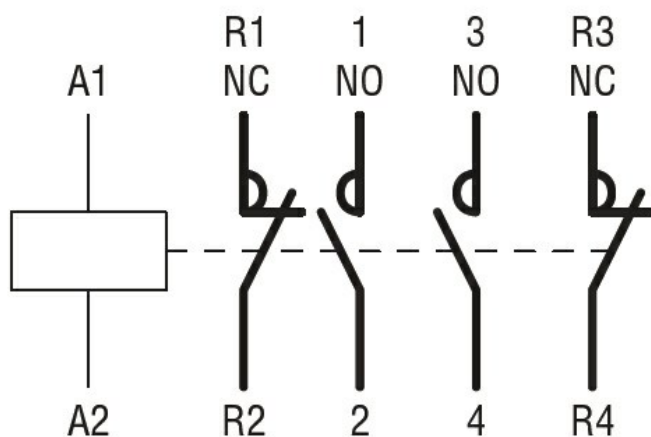
Pollution degree	3
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Dimensions



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