



Product designation	Power contactor		
Product type designation	BF80		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	115	
Operational current Ie			
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 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?	0.6	
Power dissipation per pole (average value)			
Ith	W	7.9	
AC3	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 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	Vertical plan
allowable	±30°

Fixing

Screw / DIN rail
35mm

Weight

g 1360

Conductor section

AWG/kcmil conductor section	max	2
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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

Mirror contacts according to IEC/EN 609474-4-1

YES

EMC compatibility

yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

min	V	20
max	V	48

Rated AC voltage at 50/60Hz

V 24

AC operating voltage

of 50/60Hz coil powered at 50Hz		
pick-up	min	%Us 80 Us min
	max	%Us 110 Us max
drop-out	max	%Us ≤70 Us min

of 50/60Hz coil powered at 60Hz		
pick-up	min	%Us 80 Us min
	max	%Us 110 Us max
drop-out	max	%Us ≤70 Us min

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz	in-rush	VA 35...120
	holding	VA 1.5...3.7
of 50/60Hz coil powered at 60Hz	in-rush	VA 35...120

	holding	VA	1.5...3.7
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	1...2.5
DC coil operating			
DC rated control voltage		min V	20
		max V	48
DC rated control voltage		V	24
DC operating voltage			
pick-up		min %Us	85 Us min
		max %Us	110 Us max
drop-out		max %Us	≤ 70 Us min
Average coil consumption $\leq 20^{\circ}\text{C}$		in-rush W	23...68
		holding W	1.2...1.9
Max cycles frequency			
Mechanical operation		cycles/h	1500
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
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 $^{\circ}\text{C}$	-40
		max $^{\circ}\text{C}$	70
Storage temperature		min $^{\circ}\text{C}$	-50

Max altitude

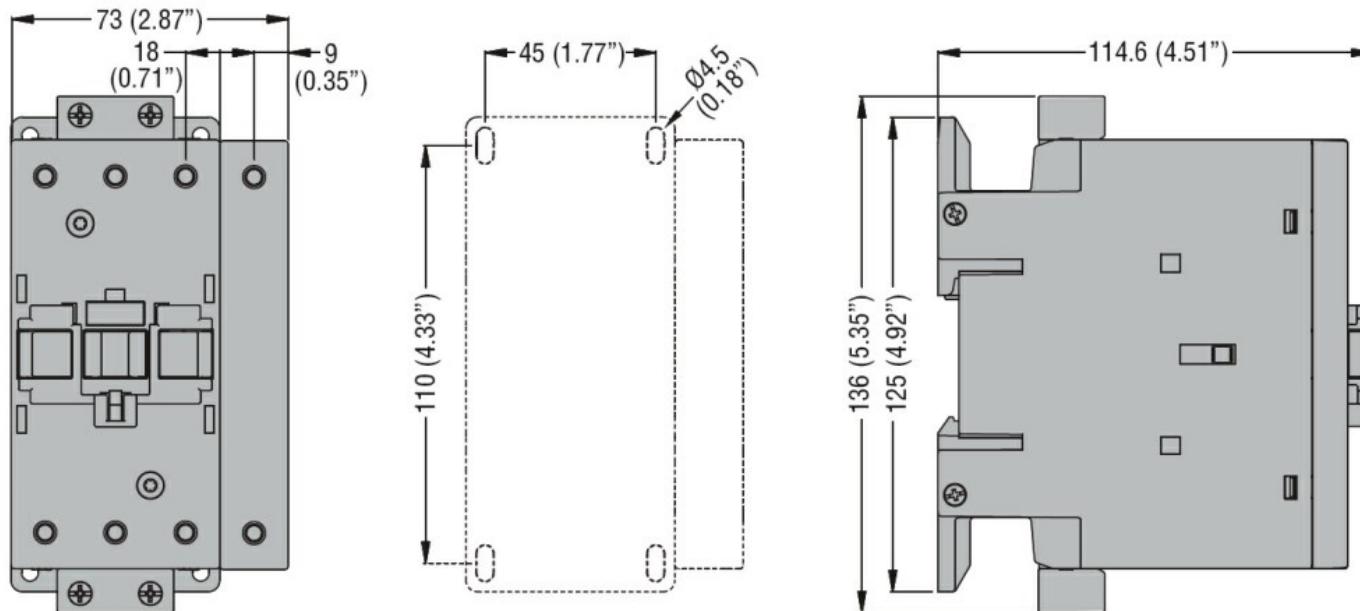
max °C 80
m 3000

Resistance & Protection

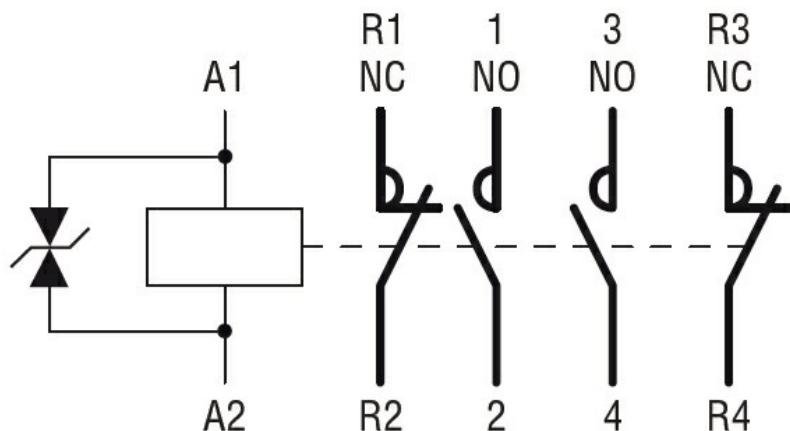
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Pollution degree

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching