



Product designation	Power contactor		
Product type designation	BF80		
<b>Contact characteristics</b>			
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)			
	$\text{m}\Omega$	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	Ibin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	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		13429
<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 mechanical load	cycles	1300000 15000000
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz	min max	V	100 250
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 holding	VA	35...120
		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
<b>DC coil operating</b>			
DC rated control voltage	min	V	100
	max	V	250
<b>DC operating voltage</b>			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	$\leq 70$ Us min
Average coil consumption $\leq 20^{\circ}\text{C}$	in-rush	W	23...68
	holding	W	1.2...1.9
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	1500
<b>Operating times</b>			
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
<b>UL technical data</b>			
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
<b>General USE</b>			
Contactor	AC current	A	115
<b>Ambient conditions</b>			
Temperature			
Operating temperature	min	°C	-40
	max	°C	70

Storage temperature

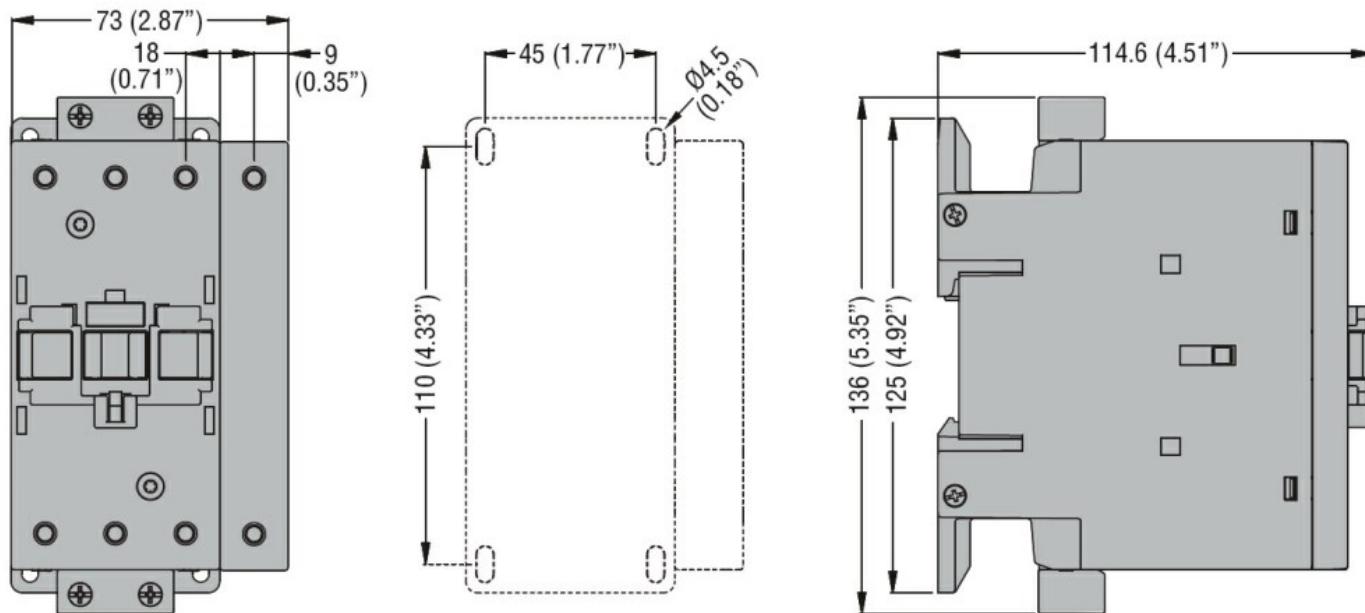
min	°C	-50
max	°C	80

Max altitude m 3000

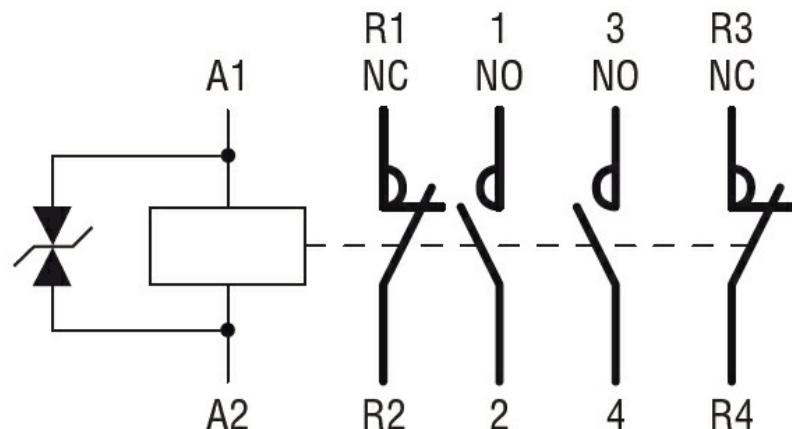
Resistance & Protection

Pollution degree 3

Dimensions



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