



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	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
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load mechanical load	cycles	1300000
			cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1				YES
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	20
		max	V	48
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	85 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	85 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
<hr/>				
of 50/60Hz coil powered at 60Hz		in-rush	VA	35...120
		holding	VA	1.5...3.7
<hr/>				
Dissipation at holding ≤20°C 50Hz			W	1...2.5
DC coil operating				
DC rated control voltage				
		min	V	20
		max	V	48
<hr/>				
DC operating voltage				
pick-up		min	%Us	80 Us min
		max	%Us	110 Us max
<hr/>				
drop-out		max	%Us	≤70 Us min
<hr/>				
Average coil consumption ≤20°C				
		in-rush	W	23...68
		holding	W	1.2...1,9
<hr/>				
Max cycles frequency				
Mechanical operation			cycles/h	1500
<hr/>				
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
<hr/>				
in DC				
Closing NO		min	ms	40
		max	ms	85
Opening NO		min	ms	20
		max	ms	55
<hr/>				
UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	77
		at 600V	A	77
<hr/>				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	25
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75
<hr/>				
General USE				
Contactor				
		AC current	A	115

Ambient conditions

Temperature

Operating temperature

min	°C	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

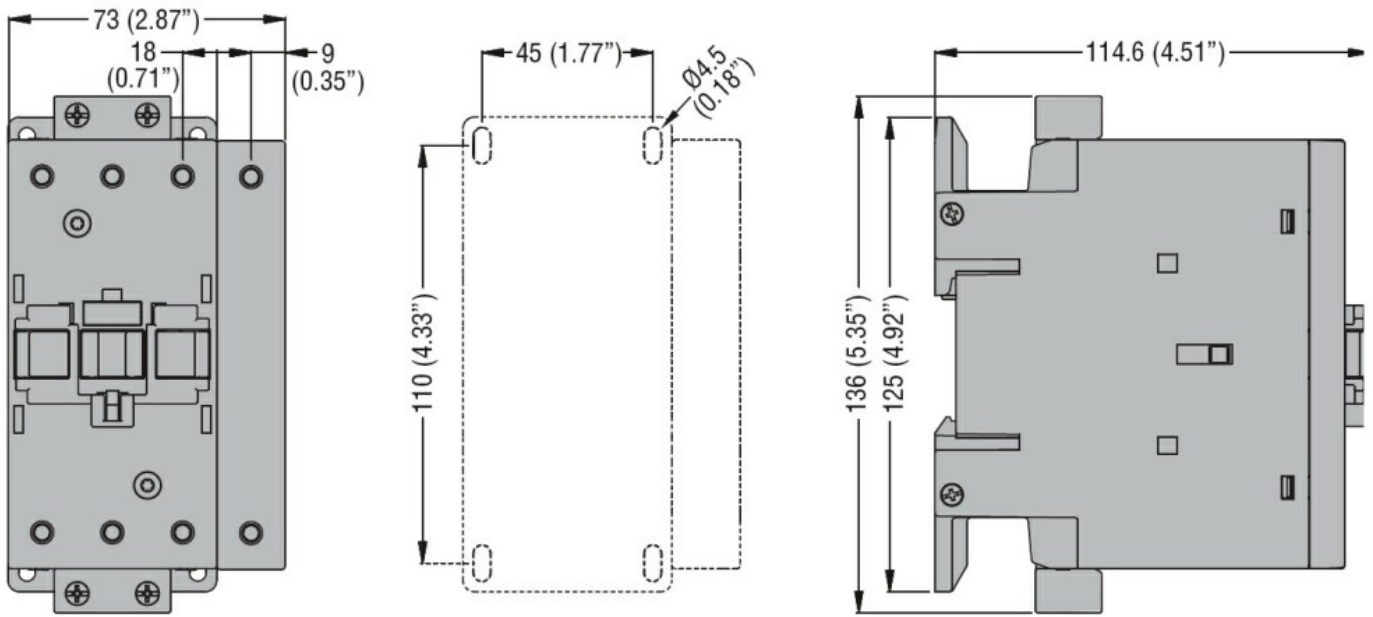
m	3000
---	------

Resistance & Protection

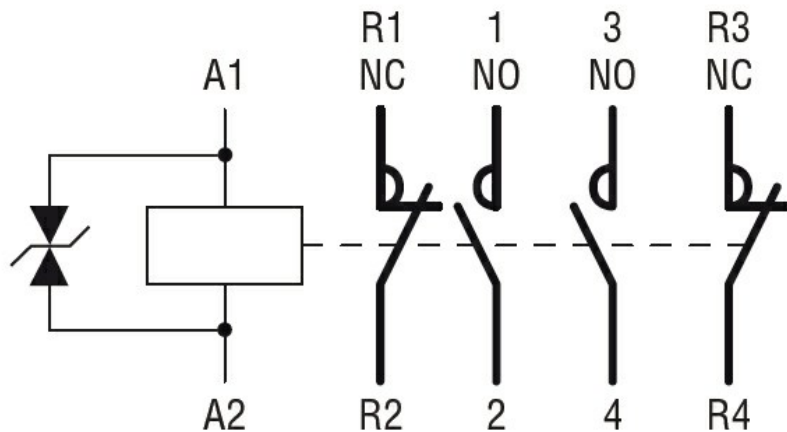
Pollution degree

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