



Product designation

Power contactor

Product type designation

BF80

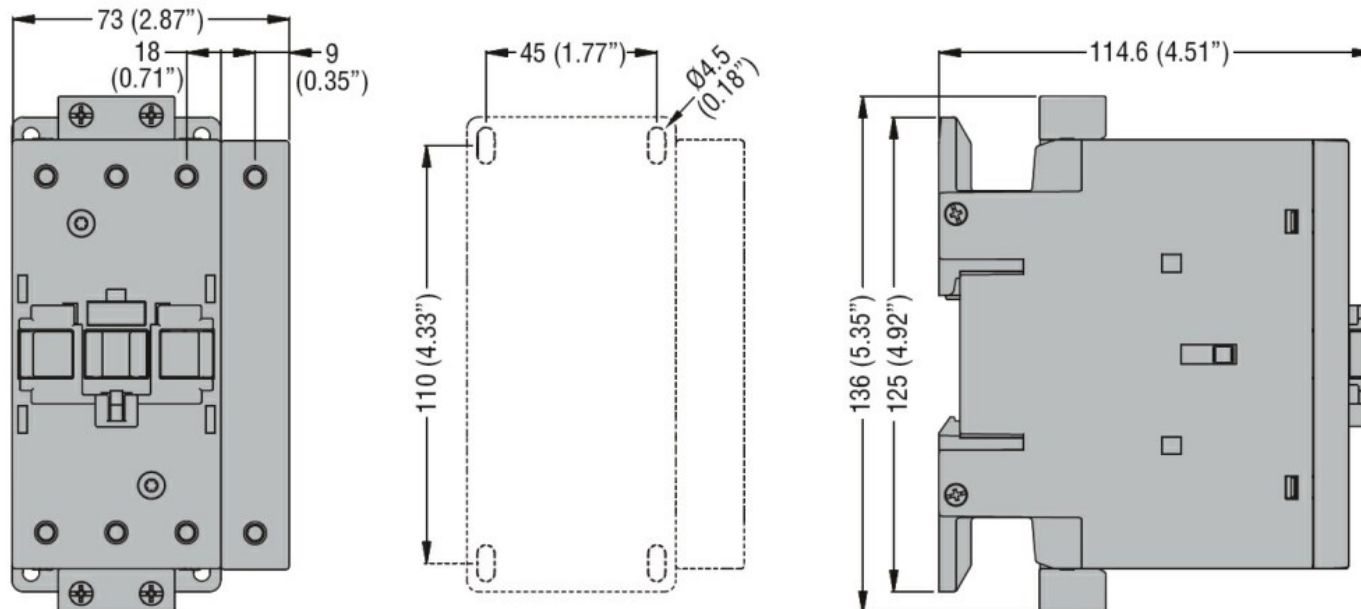
Contact characteristics

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 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
	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

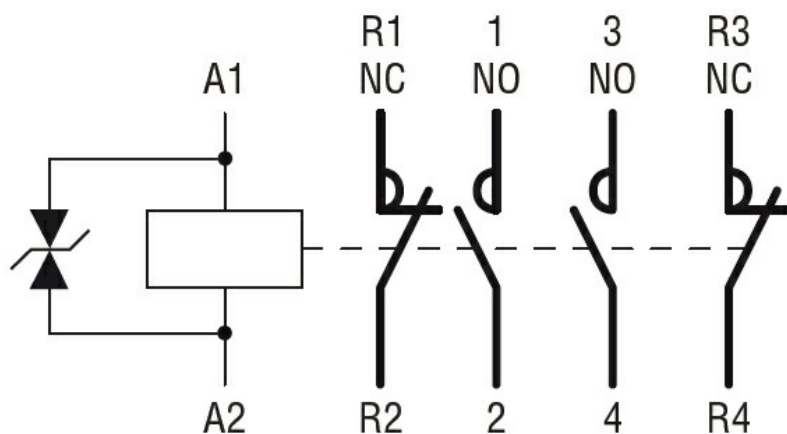
Conductor section			
AWG/Kcmil		max	2
Flexible w/o lug conductor section			
		min	mm ² 1.5
		max	mm ² 35
Flexible c/w lug conductor section			
		min	mm ² 1.5
		max	mm ² 35
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position			
		normal allowable	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	cycles 1300000
		mechanical load	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
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 ≤20°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 ≤20°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	°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 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