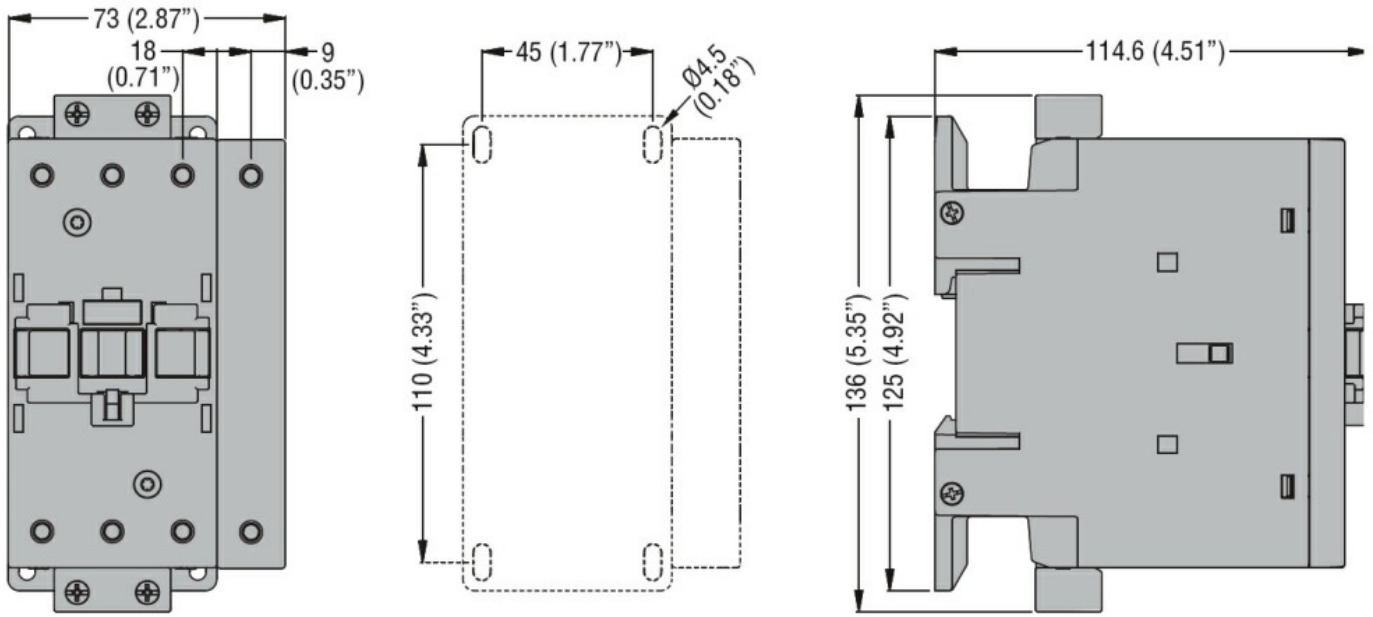




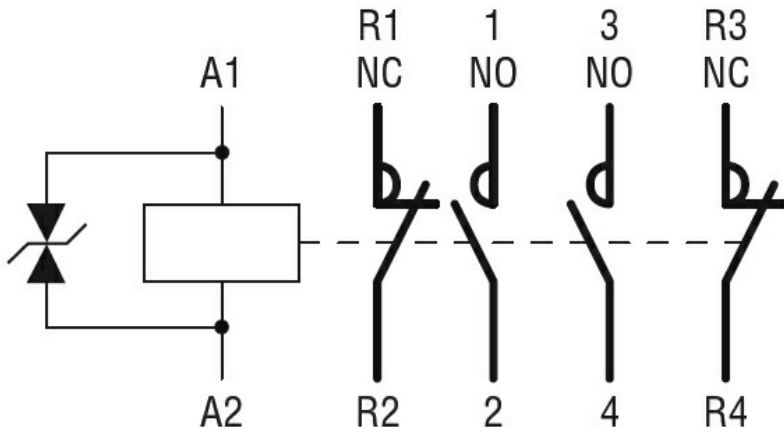
Product designation				Power contactor
Product type designation				BF80
<b>Contact characteristics</b>				
Number of poles	nr.			4
Rated insulation voltage U <sub>i</sub>	V			1000
Rated impulse withstand voltage U <sub>imp</sub>	kV			8
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
	Conventional free air thermal current I <sub>th</sub>	A	115	
Operating current	Operational current AC1 (≤40°C)	A	115	
	Operational current AC3 (≤440V ≤55°C)	A	80	
	Operational current AC4 (400V)	A	38	
Rated operational power AC1 (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	Breaking capacity 440V	A	640	
	Breaking capacity 500V	A	625	
	Breaking capacity 690V	A	456	
Resistance per pole (average value)	mΩ			0.6
Power dissipation per pole (average value)	Power dissipation pole (average value) I <sub>th</sub>	W	7.9	
	AC3	W	3.8	
Tightening torque for terminals	min	Nm	4	
	max	Nm	5	
	min	lbft	2.95	
	max	lbft	3.69	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	lbft	0.8	
	max	lbft	0.74	
max number of wires simultaneously connectable	nr.			2
Conductor section	AWG			

	min		14
	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>Auxiliary contact characteristics</b>			
Operational current AC1 (≤40°C)		A	115
Operating current DC13			
	110V	A	Screw / DIN rail 35mm
<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
Operating position			
	normal allowable		Vertical plan ±30°
Mounting			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	Cicli Cicli	1300000 15000000
EMC compatibility			yes
<b>AC coil operating</b>			
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	pick-up		
	min	%Us	0.8
	max	%Us	1.1
	drop-out		
	max	%Us	≤0.75 Us min
of 50/60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	0.8
	max	%Us	1.1
	drop-out		
	max	%Us	0.75
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	40...130

	holding	VA	1.3...4.4
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	40...130
	holding	VA	1.3...4.4
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	1...2.5
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	20
DC operating voltage			
pick-up			
	min	%Us	0.8
	max	%Us	1.10
drop-out			
	min	%Us	0.2
	max	%Us	0.55
Average coil consumption $\leq 20^{\circ}\text{C}$			
	in-rush	W	60...125
	holding	W	1.7...2.3
<b>Max cycles frequency</b>			
Mechanical operations		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>			
Full-load current (FLA) for three-phase AC motor			
	at 480V	A	77
	at 600V	A	77
General USE			
Contactor			
	AC current	A	32
<b>Other features</b>			
Pollution degree			3
<b>Dimensions</b>			



### Wiring diagrams



### Certifications and compliance

#### Certifications

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

#### Compliance

CCC  
cULus

### ETIM 6 classification

EC000066 - Power contactor, AC switching