



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 ($\leq 40^\circ C$) A 115 AC-1 ($\leq 55^\circ C$) A 95 AC-1 ($\leq 70^\circ C$) A 80 AC-3 ($\leq 440V \leq 55^\circ C$) A 80 AC-4 (400V) A 38		
Rated operational power AC-1 ($T \leq 40^\circ C$)	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)	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	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	V	48
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AC operating voltage

of 50/60Hz coil powered at 50Hz		
pick-up	min	%Us 80
	max	%Us 110
drop-out	min	%Us 20
	max	%Us 55

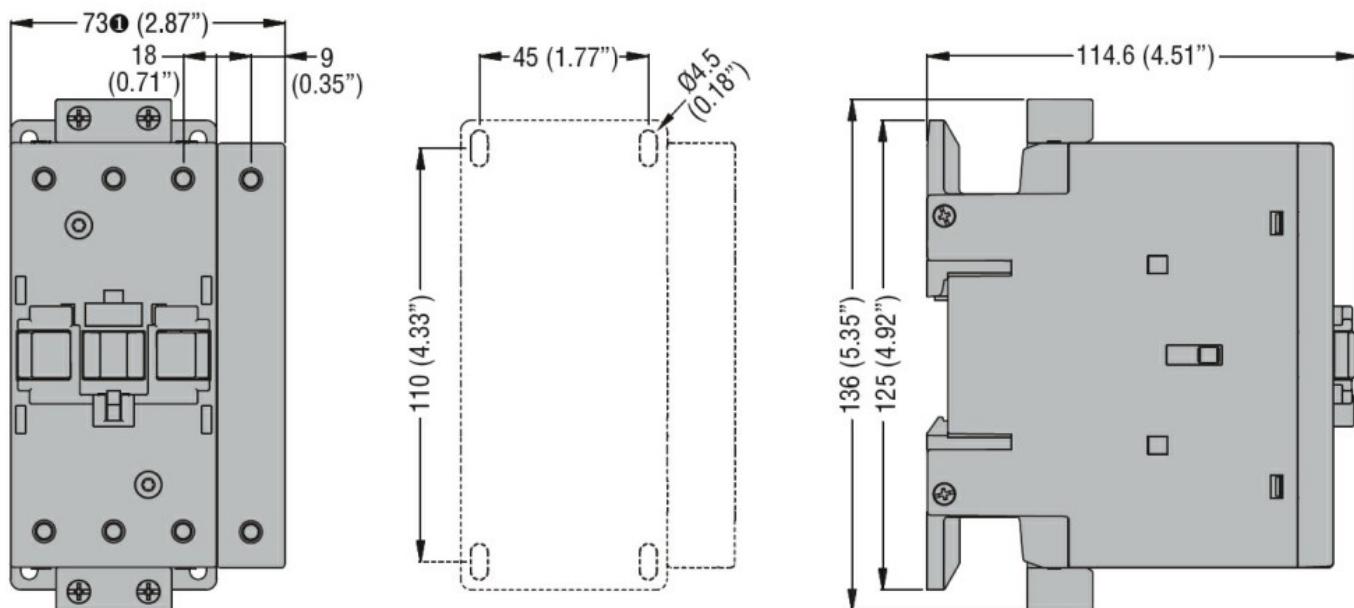
of 50/60Hz coil powered at 60Hz

pick-up	min	%Us 85
	max	%Us 110
drop-out	min	%Us 40
	max	%Us 55

AC average coil consumption at 20°C

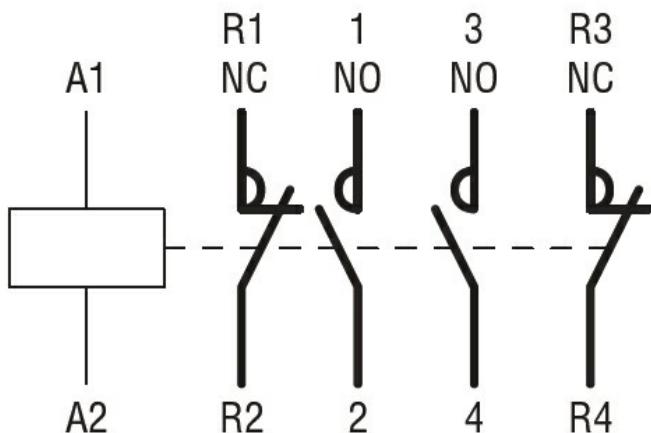
of 50/60Hz coil powered at 50Hz	in-rush	VA 210
	holding	VA 15
of 50/60Hz coil powered at 60Hz	in-rush	VA 195
	holding	VA 13

of 60Hz coil powered at 60Hz	in-rush	VA	210
	holding	VA	15
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	5
Max cycles frequency			
Mechanical operation		cycles/h	3600
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
Closing NC	min	ms	11
	max	ms	29
Opening NC	min	ms	6
	max	ms	14
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	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	70
Storage temperature	min	$^{\circ}\text{C}$	-60
	max	$^{\circ}\text{C}$	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



① BF80T2 82mm/3.23"

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