BF80T2E230

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC/DC COIL, 230VAC/DC, 2NO AND 2NC

Product designation			Power contactor
Product type designation			BF80
Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	115
Operational current Ie			
	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)			
	Ith	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	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	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	13429
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 contats according to IEC/EN 609474-4-1				YES
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	100
		max	V	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	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	100
			max	V	250
DC operating voltage					
	pick-up				
			min	%Us	80 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					

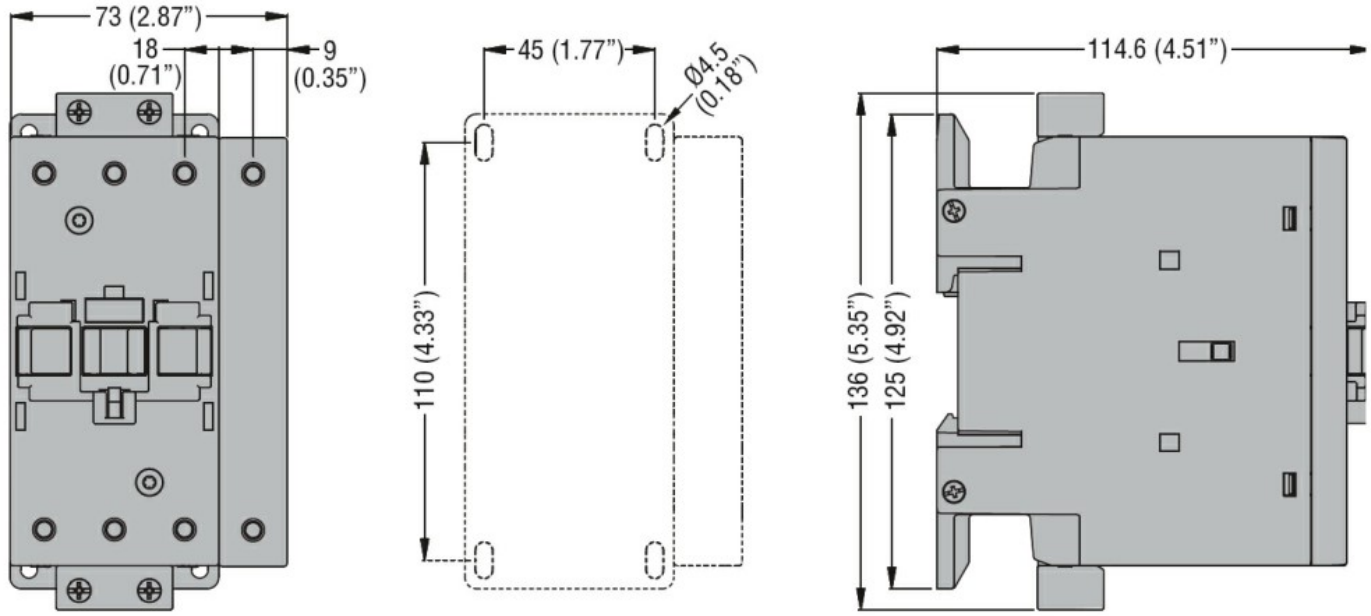
Temperature

Operating temperature			
	min	°C	-40
	max	°C	70
Storage temperature			
	min	°C	-50
	max	°C	80
Max altitude		m	3000

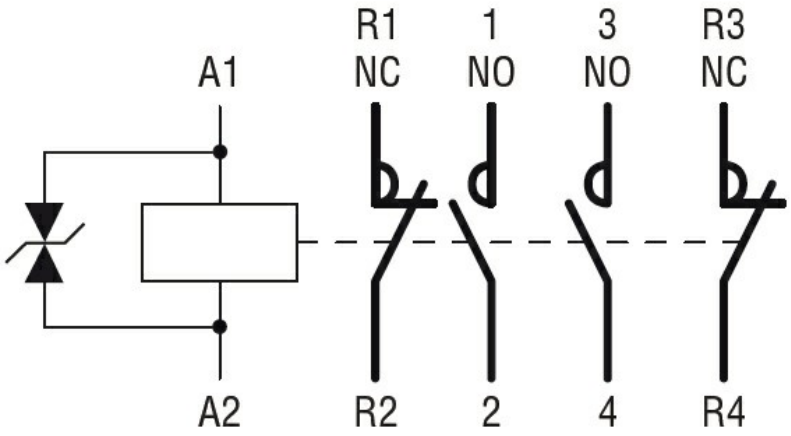
Resistance & Protection

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/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