

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ, 48VAC



Product designation			Power contactor
Product type designation			BF80
Contact characteristics			
Number of poles		Nr.	3
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		Α	115
Operational current le			
·	AC-1 (≤40°C)	Α	115
	AC-1 (≤55°C)	Α	95
	AC-1 (≤70°C)	Α	80
	AC-3 (≤440V ≤55°C)	Α	80
	AC-4 (400V)	Α	38
Rated operational power AC-3 (T≤55°C)	,		
	230V	kW	22
	400V	kW	45
	415V	kW	45
	440V	kW	45
	500V	kW	55
	690V	kW	55
	1000V	kW	37
Rated operational current AC-3 (T≤55°C)			
	230V	Α	80
	400V	Α	80
	415V	Α	80
	440V	Α	80
	500V	Α	78
	690V	Α	57
	1000V	Α	28
Rated operational power AC-1 (T≤40°C)			
	230V	kW	43
	400V	kW	76
	500V	kW	95
	690V	kW	120
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	70
	48V	Α	60
	75V	Α	60
	110V	Α	8
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	100



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	48V	Α	100
	75V	Α	100
	110V	Α	80
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	100
	48V	Α	100
	75V	Α	100
	110V	Α	85
	220V	Α	95
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	100
	48V	Α	100
	75V	Α	100
	110V	Α	100
	220V	Α	115
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
120 max cancill to in 200 200 mai 211 - Tome mai i poloc in conce	≤24V	Α	40
	48V	A	30
	75V	A	30
	110V	A	3
	220V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
TEO THAN GUITCH TO HE DOO DOO WILL ETY = TOTAL WILL 2 POICS HE SCHOOL	≤24V	Α	60
	48V	A	50
	75V	A	50
	110V	A	40
	220V	A	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		
TEC max current le in DC3-DC3 with L/N = 13ms with 3 poles in series	≤24V	۸	00
	≥24 V 48 V	A	80
	46 V 75 V	A	70 70
		A	70
	110V 220V	A	60
IFC may current to in DC2 DC5 with L/D < 15 mg with 4 pales in series	2201	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	2041 /	۸	00
	≤24V	A	90
	48V	A	90
	75V	A	90
	110V	A	75
01 4 (40 (50 (51 (60 4 7 4)	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse	0 (150)	_	
	gG (IEC)	A	125
	aM (IEC)	Α .	80
Making capacity (RMS value)		A	800
Breaking capacity at voltage			
	440V	Α	640
	500V	Α	625
·	690V	Α	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			



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		min	Nm	4
		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section	<u> </u>			
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
	rickiele w/o lag conductor coolen	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	Παλ	111111	
	r lexible c/w rug corrudctor section	min	mm²	1.5
				35
Dawer tarminal protect	tion according to IEC/EN COESO	max	mm²	
	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	1020
^ 1 (()				
Conductor section				
Conductor section	AWG/kcmil conductor section			
Conductor section	AWG/kcmil conductor section	max		2
Operations	AWG/kcmil conductor section	max		2
	AWG/kcmil conductor section	max	cycles	15000000
Operations	AWG/kcmil conductor section	max	-	
Operations Mechanical life Electrical life	AWG/kcmil conductor section	max	cycles cycles	15000000
Operations Mechanical life Electrical life Safety related data		max	-	15000000
Operations Mechanical life Electrical life Safety related data	AWG/kcmil conductor section Od according to EN/ISO 13489-1		cycles	15000000 1300000
Operations Mechanical life Electrical life Safety related data		rated load	cycles	15000000 1300000 1300000
Operations Mechanical life Electrical life Safety related data Performance level B10	0d according to EN/ISO 13489-1		cycles	15000000 1300000 1300000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B1		rated load	cycles	15000000 1300000 1300000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility	0d according to EN/ISO 13489-1	rated load	cycles	15000000 1300000 1300000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles	15000000 1300000 1300000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	rated load	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	rated load mechanical load min	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	rated load mechanical load min max	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load min	cycles cycles cycles V %Us %Us %Us	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load min max	cycles cycles cycles	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load min max min	cycles cycles cycles V %Us %Us %Us	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	rated load mechanical load min max min	cycles cycles cycles V %Us %Us %Us	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	rated load mechanical load min max min	cycles cycles cycles V %Us %Us %Us	15000000 1300000 1300000 15000000 yes yes 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	rated load mechanical load min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	15000000 1300000 1300000 15000000 yes yes 48



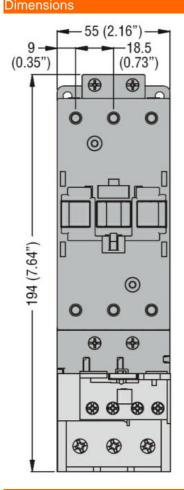
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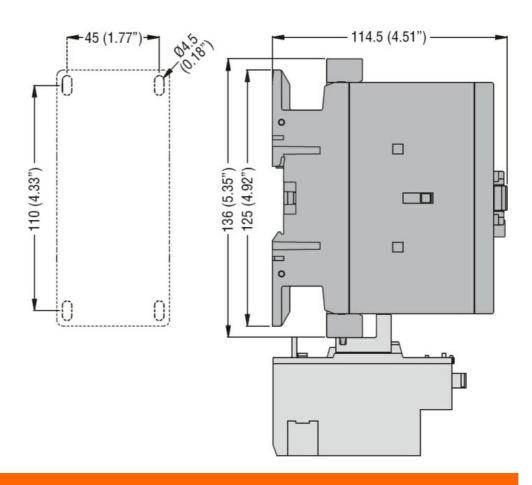
	drop-out			
	·	min	%Us	40
		max	%Us	55
AC average coil consu	umption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	VA	15
Dissipation at holding	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us of	ontrol			
	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	Α	77
		at 600V	Α	77
Yielded mechanical pe	erformance			
	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	Α	115
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ,

Ambient conditions	l			
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				

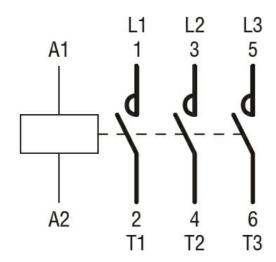




Wiring diagrams

ENERGY AND AUTOMATION

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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