



			30 10 10
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 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
	48V	Α	100
	75V	A	100
	110V	Α	80
IFO	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			100
	≤24V	Α	100
	48V	A	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
		A	040
Protection fuse	O (IEO)	۸	405
	gG (IEC)	A	125
Maties and (DMO all a)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.401.4		0.40
	440V	A	640
	500V	Α	625
· 	690V	A	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



Operating position normal Vertical plan allowable ±30° Fixing Screw / DIN rail 35mm Weight Gonductor section AWG/kcmil conductor section max 2 Operations						
Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 2 Flexible w/o lug conductor section min mm² 1.5 Flexible c/w lug conductor section min mm² 1.5 Flexible c/w lug conductor section min mm² 1.5 Power terminal protection according to IEC/EN 60529 mm² 1.5 Mechanical features mm² 1.5 Operating position normal allowable 4.30° Fixing Screw / DIN rail 35mm Weight g 10.20 Conductor section max 2 AWG/kcmil conductor section max 2 Mechanical life cycles 15000000 Electrical life cycles 15000000 Safety related data performance level B10d according to EN/ISO 13489-1 rated load cycles 15000000 Mirror contats according to IEC/EN 609474-4-1 yes yes EMC compatibility yes yes AC operating voltage min %Us<			min	lbin		
AWG/Kcmil			max			
AWG/Kcmil Piexible w/o lug conductor section min max max max 1.5 max max max 3.5 max		simultaneously connectable		Nr.	2	
Plexible w/o lug conductor section	Conductor section					
Flexible w/o lug conductor section		AWG/Kcmil				
Please P		Florible/a live and divide a costinu	max		2	
Place President Presiden		Flexible w/o lug conductor section	min	mm²	1 5	
Flexible c/w lug conductor section						
Minitary Minitary		Flexible c/w lug conductor section	Παλ	111111	33	
Max		r lexible 6, w lag conductor section	min	mm²	1.5	
Power terminal protection according to IEC/EN 60529						
Mechanical features Private Pr	Power terminal protect	tion according to IEC/EN 60529				
Normal allowable Series	Mechanical features					
Normal allowable Series	Operating position					
Fixing Screw / DIN rail Sc			normal		Vertical plan	
Same			allowable			
Weight g 1020 Conductor section max z 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 cycles Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating V 24 Rated AC voltage at 50/60Hz V 24 AC operating voltage min %Us 80 Max %Us 110 drop-out min %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 drop-out min %Us 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush	Fixing					
AWG/kcmil conductor section max 2	Weight			g	1020	
Max 2 2 2 2 2 2 2 2 2	Conductor section					
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 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 50/60Hz V 24 AC operating voltage min %Us 80 min %Us 80 max %Us 110 drop-out min %Us 20 min %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 min %Us 85 max %Us 110 drop-out min %Us 40 min %Us 40 max %Us 55 <th col<="" td=""><td></td><td>AWG/kcmil conductor section</td><td></td><td></td><td></td></th>	<td></td> <td>AWG/kcmil conductor section</td> <td></td> <td></td> <td></td>		AWG/kcmil conductor section			
Mechanical life cycles 15000000			max		2	
Electrical life	Operations					
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1300000 mechanical load cycles 15000000 cycles 150000000 cycles 150000000 cycles 150000000 cycles 15000000000000 cycles 150000000000000 cycles 15000000000000 cycles 1500000000000000000000 cycles	Mechanical life			cycles		
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1300000 mechanical load cycles 15000000 cycles 150000000 cycles 150000000 cycles 150000000 cycles 1500000000 cycles 1500000000 cycles 150000000000000 cycles 1500000000000000000000000000000000000				cycles	1300000	
Rated load Rochanical load	•					
Mirror contats according to IEC/EN 609474-4-1 yes	Performance level B1	0d according to EN/ISO 13489-1				
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility AC coil operating Rated AC voltage at 50/60Hz 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 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210				-		
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz 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 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210	Minnen contate consuli		mechanical load	cycles		
Rated AC voltage at 50/60Hz V 24		ng to IEC/EN 609474-4-1			_ •	
Rated AC voltage at 50/60Hz V 24					yes	
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 85 max %Us 110 drop-out 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	·	50/60Hz		\/	24	
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 85 max %Us 110 drop-out 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		0/00112		V	24	
Pick-up min %Us 80 max %Us 110 Mus 60 max 60	Ao operating voltage	of 50/60Hz coil powered at 50Hz				
Min WUS 80 max WUS 110		-				
Max %Us 110		F 1531 4F	min	%Us	80	
drop-out min %Us 20 max %Us 55						
max		drop-out				
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			min	%Us	20	
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			max	%Us	55	
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		of 50/60Hz coil powered at 60Hz				
max %Us 110		pick-up				
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			min			
min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210			max	%Us	110	
Max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		drop-out		0/17	40	
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210						
of 50/60Hz coil powered at 50Hz in-rush VA 210	AC average ===:1 =====	resultion at 20°C	max	%US	55	
in-rush VA 210	AC average coll const	•				
		oi 50/60mz coii powered at 50mz	in ruch	١/٨	210	
Tioluling VA 15						
			noluling	٧٨	13	



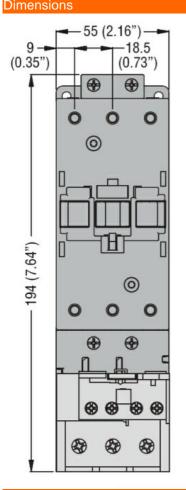


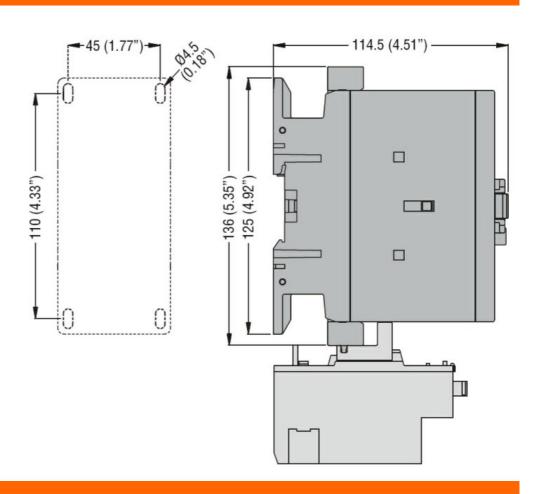
	of 50/60Hz coil power	ared at 60Hz			
	or 50/00112 con powe	sied at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	1 at 60Hz	rioiding	V/\	10
	or doriz con powered	1 at 00112	in-rush	VA	210
			holding	VA VA	15
Discipation at holding	<20°C E0∐-		riolaling	W	5
Dissipation at holding	≥20 C 30⊓Z			VV	5
Max cycles frequency				ovoleo/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Ola aire a NO			
		Closing NO			40
			min	ms	12
		0 1 110	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 m	otor			
			at 480V	Α	77
-			at 600V	Α	77
Yielded mechanical pe	erformance				
	for three-phase AC r	notor			
			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	fuse, 600V				_
•	High fault				
	U		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	3.0		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 450 01455		
Temperature					
romporaturo	Operating temperatu	rο			
	Operating temperatu	10	min	°C	-50
				°C	70
	Storage temperature		max	U	10
	Storage temperature	;	min	°C	-60
			min		-00

ENERGY AND AUTOMATION

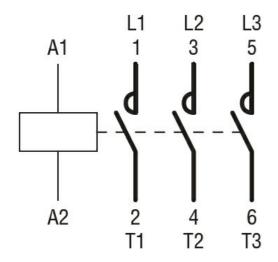
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Disconsises			





Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1



BF8000A024

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

	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



			30 30 10
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 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
	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
		A	040
Protection fuse	O (IEO)	۸	405
	gG (IEC)	A	125
Maties and (DMO all a)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.401.4		0.40
	440V	A	640
	500V	Α	625
· 	690V	A	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	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
	simultaneously connectable		Nr.	2
Conductor section	AMO // 'I			
	AWG/Kcmil			2
	Florible w/o lug conductor coction	max		2
	Flexible w/o lug conductor section	min	mm²	1.5
			mm²	35
	Flexible c/w lug conductor section	max	111111	30
	r lexible c/w lug corrudctor section	min	mm²	1.5
		max	mm²	35
Power terminal protec	ction according to IEC/EN 60529	тих		IP20 front
Mechanical features	Stierr descraing to 120/214 00023			11 20 110111
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
				Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contata cocard				
wirror contais accord	ing to IEC/EN 609474-4-1			yes
	ing to IEC/EN 609474-4-1			yes yes
EMC compatibility AC coil operating	ing to IEC/EN 609474-4-1			-
EMC compatibility			V	-
EMC compatibility AC coil operating			V	yes
EMC compatibility AC coil operating Rated AC voltage at 5			V	yes
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz		V	yes
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	min	%Us	yes 48 80
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	min max		yes 48
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz	max	%Us %Us	yes 48 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	max min	%Us %Us %Us	yes 48 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	max	%Us %Us	yes 48 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min	%Us %Us %Us	yes 48 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	max min max	%Us %Us %Us %Us	yes 48 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max min	%Us %Us %Us %Us	yes 48 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	max min max	%Us %Us %Us %Us	yes 48 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max min max	%Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	max min max min max min max min	%Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110 40
EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max	%Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110
EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max min max min	%Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110 40
EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max min max	%Us %Us %Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110 40 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max min max min	%Us %Us %Us %Us %Us	yes 48 80 110 20 55 85 110 40





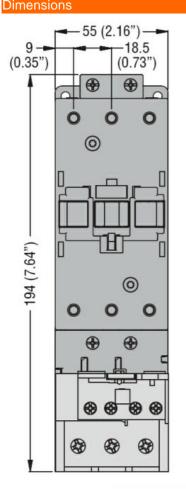
	of 50/60Hz coil power	ared at 60Hz			
	or 50/00112 con powe	sied at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	1 at 60Hz	Holding	V/\	10
	or doriz con powered	1 at 00112	in-rush	VA	210
			holding	VA VA	15
Discipation at holding	<20°C E0∐-		riolaling	W	5
Dissipation at holding	≥20 C 30⊓Z			VV	5
Max cycles frequency				ovoleo/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Ola aire a NO			
		Closing NO			40
			min	ms	12
		0 1 110	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 m	otor			
			at 480V	Α	77
-			at 600V	Α	77
Yielded mechanical pe	erformance				
	for three-phase AC r	notor			
			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	fuse, 600V				_
•	High fault				
	U		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	3.0		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 450 01455		
Temperature					
romporaturo	Operating temperatu	rο			
	Operating temperatu	10	min	°C	-50
				°C	70
	Storage temperature		max	U	10
	Storage temperature	;	min	°C	-60
			min		-00

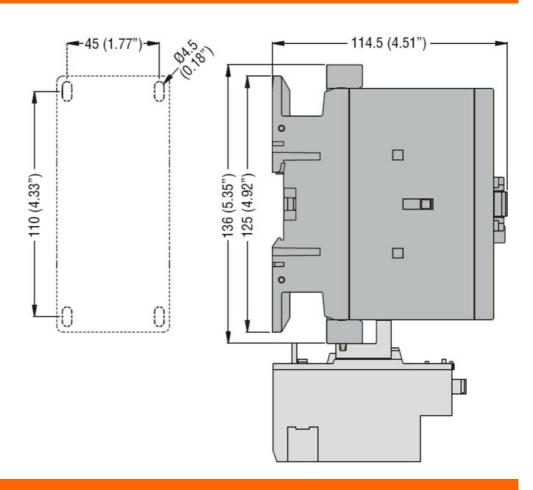
5/6

ENERGY AND AUTOMATION

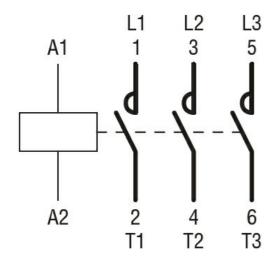
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			





Wiring diagrams



Certifications and compliance

Compliance

BF8000A048

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1



BF8000A048

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

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
FTIM classification	

ETIM classificatior

ETIM 8.0

EC000066 -Power contactor, AC switching



230V kW 22 400V kW 45 415V kW 45 445V kW 45 446V kW 45 446V kW 45 500V kW 55 690V kW 55 690V kW 37			30 30 10
Product type designation Signature	Product designation		Power contactor
Namber of poles			
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 IEC Conventional free air thermal current lth A 115 Operational current le AC-1 (≤40°C) A 115 AC-1 (≤55°C) with 16mm² wire and fork end lugA 80 AC-1 (≤70°C) A 80 AC-3 (≤4400 v55°C) A 80 AC-3 (≤4400 v55°C) A 80 AC-3 (≤4400 v55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 45 415V kW 45 415V kW 45 415V kW 45 415V kW 45 440V kW 45 416V kW 45 400V kW 45 400V kW 45 400V kW 45 400V kW 48 400V kW 75 690V kW 75 40V 40V </td <td></td> <td></td> <td></td>			
Rated impulse withstand voltage Uimp	Number of poles	Nr.	3
Operational frequency min max brack Hz max Hz max Hz hz Hz Hz 400 IEC Conventional free air thermal current lth A 115 Operational current le AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤55°C) A 95 AC-1 (≤55°C) With 16mm² wire and fork end lugA 80 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 22 400V kW 45 A15V	Rated insulation voltage Ui IEC/EN	V	1000
Min	Rated impulse withstand voltage Uimp	kV	8
EC Conventional free air thermal current lth	Operational frequency		
EC Conventional free air thermal current Ith Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤55°C) Mith 16mm² wire and fork end lugA 80 AC-1 (≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 AC-4 (400V) AV AV AC-4 (400V) AV AV AV AV AV AV AV	min	Hz	25
Operational current le AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤55°C) A 95 AC-1 (≤55°C) with 16mm² wire and fork end lugA 80 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 AC-4 (400V) A 45 AC-4 (400V) A 45 AC-4 (400V) AC-4 (max	Hz	400
AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤55°C) with 16mm² wire and fork end lugA AC-1 (≤70°C) A 80 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 22 400V kW 45 415V kW 45 415V kW 45 500V kW 55 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 76 500V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 48V A 100 75V A 100 110V A 8 220V A 7 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	IEC Conventional free air thermal current Ith	Α	115
AC-1 (≤55°C) with 16mm² wire and fork end lugA AC-1 (≤55°C) with 16mm² wire and fork end lugA AC-1 (≤70°C) A BC AC-1 (≤70°C) A BC AC-1 (≤70°C) A BC AC-1 (≤70°C) A BC AC-2 (≤4400 ≤55°C) A BC AC-4 (4000 A BC	Operational current le		
AC-1 (≤55°C) with 16mm² wire and fork end lugA	AC-1 (≤40°C)	Α	115
AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 22 400V kW 45 415V kW 45 415V kW 45 500V kW 55 6890V kW 55 6890V kW 55 690V kW 76 500V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 48V A 100 75V A 100 48V A 100 75V A 100 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9	AC-1 (≤55°C)	Α	95
AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 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 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 A 70 48V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 100V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100	AC-1 (≤55°C) with 16mm² wire and fork end	l lugA	80
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 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 A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	AC-1 (≤70°C)	Α	80
Rated operational power AC-3 (T≤55°C) 230V kW 22 440V kW 45 415V kW 45 440V kW 45 500V kW 55 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 76 500V kW 76 500V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	AC-3 (≤440V ≤55°C)	Α	80
230V kW 22 400V kW 45 415V kW 45 415V kW 45 440V kW 45 500V kW 55 500V kW 55 500V kW 37	AC-4 (400V)	Α	38
400V kW 45 415V kW 45 440V kW 45 440V kW 45 500V kW 55 690V kW 55 690V kW 37	Rated operational power AC-3 (T≤55°C)		
415V kW 45 440V kW 45 500V kW 55 500V kW 55 500V kW 55 500V kW 37	230V	kW	22
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	400V	kW	45
Soov kW 55 690V kW 55 1000V kW 37	415V	kW	45
690V kW 37	440V	kW	45
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120	500V	kW	55
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 A 70 48V A 60 75V A 60 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 110V A 80 220V A 9	690V	kW	55
	1000V	kW	37
400V kW 76 500V kW 95 690V kW 120	Rated operational power AC-1 (T≤40°C)		
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 70	230V	kW	43
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V	400V	kW	76
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100	500V	kW	95
≤24V	690V	kW	120
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		
T5V A 60 110V A 8 220V A −	≤24V	Α	70
110V A 8 220V A -	48V	Α	60
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $\leq 24V$ A 100 48V A 100 75V A 100 110V A 80 220V A 9	75V	Α	60
IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series	110V	Α	8
	220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		
	≤24V	Α	100
	48V	Α	100
220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $ ≤ 24V A 100$	75V	Α	100
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100	110V	Α	80
≤24V A 100	220V	Α	9
	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
48V A 100	≤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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	A	3
	220V	A	- -
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
TEC max current le in DC3-DC3 with L/N = 13ms with 2 poles in series	<241/	۸	60
	≤24V	A	60
	48V	A	50
	75V	A	50
	110V	A	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	90
	48V	Α	90
	75V	Α	90
	110V	Α	75
	220V	Α	80
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	(/	Α	800
Breaking capacity at voltage			
5 1 7 5 -	440V	Α	640
	500V	A	625
	690V	A	456
Resistance per pole (average value)	300 1	mΩ	0.6
Power dissipation per pole (average value)		11132	0.0
. o alcolpation poi polo (avolago valuo)	Ith	W	7.9
	AC3	W	3.8
Tightening torque for terminals	A03	v v	<u> </u>
righterning torque for terminals	min	Nm	4
	max	Nm	5
	min	lbin	2.95
Tightoning torque for coil to main al	max	lbin	3.69
Tightening torque for coil terminal		N I.a.:	0.0
	min	Nm	0.8



		max	Nm	1
		min	lbin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A)A(O/I/C : 1			
	AWG/Kcmil			0
	Fig. 71. A. L. Commission of the Commission of t	max		2
	Flexible w/o lug conductor section			4.5
		min max	mm² mm²	1.5 35
	Flexible c/w lug conductor section	IIIdA	111111	33
	Flexible C/W lug Colluctor Section	min	mm²	1.5
		max	mm²	35
Power terminal prote	ction according to IEC/EN 60529	тих		IP20 front
Mechanical features	ction according to 120/214 00025			11 20 110111
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
Finder at				Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B	10d according to EN/ISO 13489-1			
		rated load	cycles	1300000
		mechanical load	cycles	15000000
	ling to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at			V	110
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/11-	0.0
		min	%Us	80
	at	max	%Us	110
	drop-out		0/110	20
		min	%Us %Us	20 55
	of E0/60Hz goil powered at C0Hz	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
			%Us %Us	110
	drop-out	max	/0US	110
	αιορ-οαι	min	%Us	40
		max	%Us	55
AC average coil cons	sumption at 20°C	IIIdA	/003	
AC average con cons	of 50/60Hz coil powered at 50Hz			
	or 50/00112 con powered at 50H2	in-rush	VA	210
		holding	VA VA	15
		notality	v / 1	10



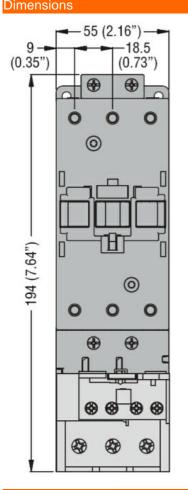


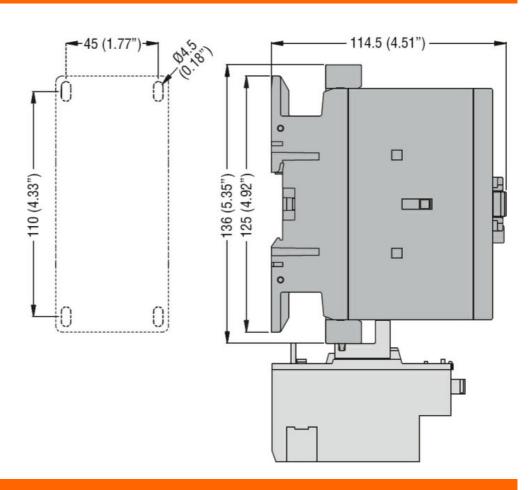
	of 50/60Hz coil power	red at 60Hz			
	01 30/00112 coil power	red at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	ot 60∐-z	riolaling	٧٨	13
	or ounz con powered	al OUTZ	in-rush	١/٨	210
				VA	
D'a de d'acceptant de la l'estate	40000 FOLL		holding	VA	15
Dissipation at holding	≤20°C 50HZ			W	5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co					
	in AC				
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
		Ü	min	ms	40
			max	ms	85
		Opening NO			-
		- p	min	ms	20
			max	ms	55
UL technical data			тик	1110	
	for three-phase AC mo	otor			
r dir lodd darrollt (r Ez t)	nor unoo phaco no me	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	at 480V	Α	77
			at 600V	A	77
Yielded mechanical pe	rformanco		at 000 v		
rielded mechanical pe		otor			
	for three-phase AC m	lotor	000/000/	LID	0.5
			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	A	200
			Fuse class		RK5
Ambient conditions			. 400 01400		
Temperature					
Tomporature	Operating temperatur	·o			
	Operating temperatur	C	ma:.a	°C	50
			min		-50 -70
	0(max	°C	70
	Storage temperature			2.2	00
			min	°C	-60

ENERGY AND AUTOMATION

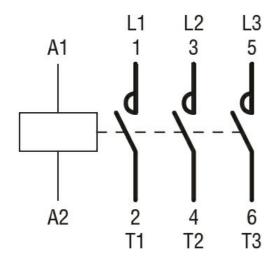
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Discount of the control of the contr			





Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1



BF8000A110

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

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
FTIM classification	

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF80** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Ηъ 25 max Hz 400 IEC Conventional free air thermal current Ith 115 Α 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) 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 power AC-1 (T≤40°C) 230V kW 43 76 400V kW 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 60 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 100 48V Α 100 75V Α 100 110V Α 80 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 100 48V Α 100 75V 100 Α



	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
		A	040
Protection fuse	O (IEO)	۸	405
	gG (IEC)	A	125
Maties and (DMO all a)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.401.4		0.40
	440V	A	640
	500V	Α	625
· 	690V	A	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



	min	lbin	0.8
	max		0.74
multaneously connectable		Nr.	2
A)A(Q/I/C :I			
AWG/Kcmil			0
Florible w/o lug conductor costion	max		2
riexible w/o lug conductor section	min	mm²	1.5
			35
Flexible c/w lug conductor section	IIIdA	111111	33
Tickibic 0/W lag conductor section	min	mm²	1.5
			35
on according to IEC/EN 60529			IP20 front
J.			
	normal		Vertical plan
	allowable		±30°
			Screw / DIN rail
			35mm
		g	1020
AWG/kcmil conductor section			
	max		2
			45000000
			15000000
		cycles	1300000
d according to EN/ISO 12490 1			
d according to EN/150 15469-1	rated load	cycles	1300000
		•	1500000
a to IEC/EN 609474-4-1	THEOHAITICAL IOAG	Cycles	yes
g to 120/214 000 1/ 1 1 1			yes
			yes
/60Hz		V	230
of 50/60Hz coil powered at 50Hz			
·	min	%Us	80
	max	%Us	110
drop-out			
	min		20
	max	%Us	55
•			
pick-up		0/11	
			85
dran aut	max	%US	110
arop-out	min	0/110	40
			55
motion at 20°C	IIIdX	/005	55
or 50/001 12 con powered at 501 12	in-ruch	\ /Δ	210
	holding	VA	15
		v / \	
	AWG/Kcmil Flexible w/o lug conductor section Flexible c/w lug conductor section on according to IEC/EN 60529 AWG/kcmil conductor section d according to EN/ISO 13489-1 g to IEC/EN 609474-4-1 y/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out mption at 20°C of 50/60Hz coil powered at 50Hz	multaneously connectable AWG/Kcmil Flexible w/o lug conductor section Flexible c/w lug conductor section min max Flexible c/w lug conductor section min max on according to IEC/EN 60529 AWG/kcmil conductor section max d according to EN/ISO 13489-1 rated load mechanical load g to IEC/EN 609474-4-1 //60Hz of 50/60Hz coil powered at 50Hz pick-up min max of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max mption at 20°C of 50/60Hz coil powered at 50Hz in-rush	Max Ibin Nr.

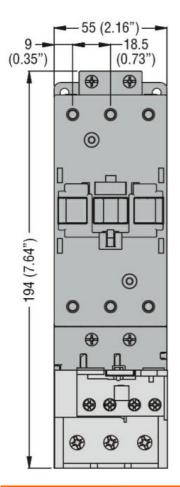


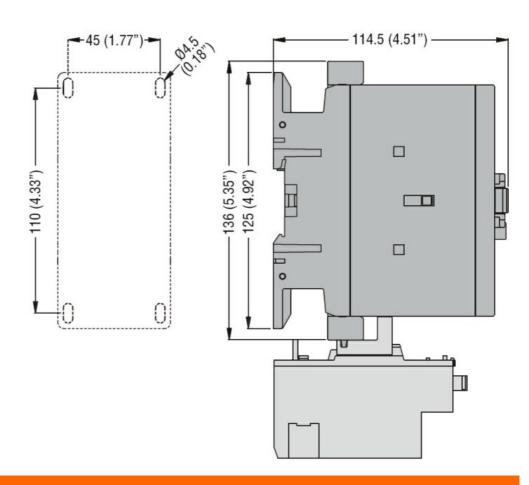


	of 50/60Hz coil powered at 60Hz			
	01 00/00112 0011 powered at 00112	in-rush	VA	195
		holding	VA	13
	of COLL= and managed at COLL=	Holding	VA	13
	of 60Hz coil powered at 60Hz	•	١./٨	040
		in-rush	VA	210
		holding	VA	15
Dissipation at holding:	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
	in AC			
	Closing NO			
	3 - 3	min	ms	12
		max	ms	28
	Opening NO	max	1110	
	Opening NO	min	me	8
			ms	
III to obvioul data		max	ms	22
UL technical data				
rull-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		0.0,000		
Ocheral COL	Contactor			
	Contactor	AC current	۸	115
Chart sire it protection	fue C001/	AC current	Α	113
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
Ambient conditions				
Temperature				
· Jimporataro	Operating temperature			
	Operating temperature	min	°C	-50
		min		
	21	max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

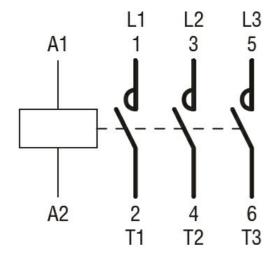


ENERGY AND AUTOMATION





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



BF8000A230

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product type designation	Product designation			Power contactor
Number of poles	Product type designation			BF80
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 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 power AC-3 (T≤55°C) 230V kW 42 40V kW 45 440V kW 45 44V kW 45 44V kW 45 440V kW 45 500V kW 45 44V kW 45 500V kW 37 70 48 40V kW 100 100V kW 43 40V kW 120 100 100 100 100 100 100 100 100 100 100				
Rated impulse withstand voltage Ulimp	•			
Department Frequency Min Hz Z5 Max Hz A00 EC Conventional free air thermal current lth				
Fig. 25			kV	8
IEC Conventional free air thermal current Ith	Operational frequency			
EC Conventional free air thermal current Ith		min		
Operational current le AC-1 (≤45°C) A 95 AC-1 (≤55°C) A 95 AC-1 (≤70°C) A 80 AC-3 (5440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 45 415V kW 45 45 440V kW 45 440V kW 55 690V kW 55 690V kW 55 1000V kW 37 80 Rated operational power AC-1 (T≤40°C) 230V kW 45 43 400V kW 76 500V kW 95 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 100 48V A 100 75V A 100 48V A 100 75V A 100 48V A 100 80 220V A 9 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 48V A 100 48V A 100		max		
AC-1 (≤40°C)			Α	115
AC-1 (S55°C) A 95 AC-1 (S70°C) A 80 AC-3 (S440V ≤55°C) A 80 AC-3 (S440V ≤55°C) A 80 AC-4 (400V) A 38 AC-4 (400V) AC-4	Operational current le			
AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 22 400V kW 45 415V kW 45 415V kW 45 500V kW 55 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 440V kW 45 500V kW 55 690V kW 95 690V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 75V A 100 75V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				
AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-3 (T≤55°C) 230V kW 22 400V kW 45 415V kW 45 415V kW 45 500V kW 55 690V kW 55 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 440V kW 76 500V kW 95 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		•		
AC-4 (400V)		` ,		
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 power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		,		
230V kW 22 400V kW 45 415V kW 45 415V kW 45 446V kW 45 446V kW 45 446V kW 45 500V kW 55 500V kW 55 500V kW 55 1000V kW 37 76 500V kW 95 690V kW 95 690V kW 120	D. J.	AC-4 (400V)	A	38
A00V kW 45 415V kW 45 440V kW 45 440V kW 55 500V kW 55 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 100 48V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 48V A 100	Rated operational power AC-3 (1≤55°C)	0001/		
415V kW 45				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
Soov kW 55 690V kW 55 1000V kW 37				
Rated operational power AC-1 (T≤40°C) Rated operational power AC-1 (T≤40°C) 230V kW 43 kW 76 500V kW 95 690V kW 120				
Rated operational power AC-1 (T≤40°C)				
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 A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 48V A 9				
	Pated aparational power AC 1 (T<10°C)	1000 V	KVV	31
A00V kW 76 500V kW 95 690V kW 120	Nated operational power AC-1 (1540 C)	2201/	L\\/	12
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 70				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series SE24V				
	IFC may current le in DC1 with L/R < 1ms with 1 noles in series	030 V	IXVV	120
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TEO THAN OUTFOIL TO IT BOT WILL ETC = THIS WILL T POICS IT SCHOO	<24\/	Δ	70
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
110V A 8 220V A -				
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 100 48V A 100 75V A 100 110V A 80 220V A 9				
IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 100 48V A 100 75V A 100 110V A 80 220V A 9				_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<u> </u>		
		≤24V	Α	100
≤24V A 100 48V A 100			Α	
≤24V A 100 48V A 100	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			_
48V A 100	·	≤24V	Α	100
75V A 100		48V		
		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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	A	50
	110V	A	40
150 DOS DOS 111 L/D 4.45 111 0 1 1 1	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-04) /		0.0
	≤24V	A	80
	48V	A	70 70
	75V	A	70
	110V 220V	A A	60 64
IEC may current to in DC2 DC5 with L/D < 15mg with 4 malog in parion	2200	A	04
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<24)/	٨	00
	≤24V 48V	A A	90 90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			0.10
1 Total and Trade	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	airi (izo)	A	800
Breaking capacity at voltage			
Distanting supusity 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
	AC3	W	3.8
Tightening torque for terminals	,		
5 5 11 11 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1





BF8000A400

Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 2 Flexible w/o lug conductor section min mm² 1,5 Flexible c/w lug conductor section min mm² 1,5 Flexible c/w lug conductor section min mm² 1,5 max mm² 1,5 mm² 1,5 max mm² 1,5 mm² 2,0 1,0			min	Ibin	
Conductor section AWG/Kcmil max 2 Flexible w/o lug conductor section min mm² 1.5 Flexible c/w lug conductor section min mm² 3.5 Power terminal protection according to IEC/EN 60529 min mm² 1.5 Mechanical features mormal allowable ±30° \$30° Prixing mormal allowable ±30° \$50° Fixing mormal allowable ±30° \$50° Fixing g 1020 \$50° Conductor section max 2 2 Weight g 1020 \$50° Conductor section max 2 2 Operations max 2 2 Mechanical life cycles 15000000 Safety related data cycles 15000000 Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 15000000 Mirror contats according to IEC/EN 609474-4-1 yes yes EMC compatibility yes 5			max		
AWG/Kcmil Plexible w/o lug conductor section min mm		simultaneously connectable		Nr.	2
Plexible w/o lug conductor section	Conductor section	ANA/O/I/C 11			
Flexible w/o lug conductor section		AWG/Kcmil			2
Plexible c/w lug conductor section		Clavible w/e lug conductor coetion	max		
Max		Flexible w/o lug conductor section	min	mm²	1.5
Flexible c/w lug conductor section					
Province		Flexible c/w lug conductor section	IIIAX	111111	- 55
Prower terminal protection according to IEC/EN 60529 P20 front Max Mm² 35		Tiexible 6, wildy definately section	min	mm²	1.5
Power terminal protection according to IEC/EN 60529 IP20 front Mechanical features					
Mechanical features Poperating position Poperating Poperatin	Power terminal protec	tion according to IEC/EN 60529			
Normal allowable Seriew / DIN rail allowable Seriew / DIN rail allowable Seriew / DIN rail 36mm	Mechanical features	ÿ			
Screw DIN rail DIN rai	Operating position				
Screw / DIN rail 35mm 35			normal		Vertical plan
Meight			allowable		±30°
Weight	Fixing				
AWG/kcmil conductor section max 2					
AWG/kcmil conductor section max				g	1020
Max 2 2 2 2 2 2 2 2 2	Conductor section				
Operations Mechanical life cycles 15000000 Electrical life cycles 1300000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1300000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 50/60Hz V 400 AC operating voltage min %Us 80 Miror coil powered at 50Hz min %Us 80 min %Us 20 min %Us 20 min %Us 25 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 min %Us 85 max %Us 110 drop-out min %Us 40 min %Us 55 AC average coil consumptio		AWG/kcmil conductor section			
Mechanical life Cycles 15000000			max		2
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 EMC compatibility yes EMC coil operating Rated AC voltage at 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 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					4.5000000
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1300000 mechanical load cycles 15000000 mechanical load cycles 150000000 mechanical load cycles 150000000000 cycles 150000000 cycles 150000000 cycles 1500000000000 cycles 1500000000000000000000000000000000000					
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 EMC compatibility AC coil operating Rated AC voltage at 50/60Hz For Solon English Eng				cycles	1300000
Rated load Rochanical load	•	0d according to FN/ICO 42400.4			
Mirror contats according to IEC/EN 609474-4-1 yes	Performance level B1	od according to EN/ISO 13489-1	roted load	ovoloo	1200000
Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 50/60Hz 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 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210				•	
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz 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 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	Mirror contate accordi	ng to IEC/EN 609474-4-1	medianical load	Cycles	
AC coil operating Rated AC voltage at 50/60Hz AC operating voltage		119 10 12 0/214 000 4/4 4 1			
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 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					yes
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 85 max %Us 110 drop-out 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	· · · · · · · · · · · · · · · · · · ·	0/60Hz		V	400
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 85 max %Us 110 drop-out 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		o, oo: .=		<u> </u>	
Pick-up min %Us 80 max %Us 110 Moreored min %Us 20 max %Us 55 Moreored min %Us 55 Moreored min %Us 55 Moreored min %Us 85 max %Us 110 Moreored min %Us 85 max %Us 110 Moreored min %Us 40 max %Us 55 Moreored Moreored min %Us 40 max %Us 55 Moreored M	r re speramig remage	of 50/60Hz coil powered at 50Hz			
Min MUs 80 max MUs 110 Mus 20 max MUs 55 Mus 55 Mus Mu		-			
Min WUs 20 max WUs 55		·	min	%Us	80
min %Us 20 max %Us 55			max	%Us	110
max %Us 55		drop-out			
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			min		
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			max	%Us	55
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		•			
max %Us 110		pick-up			
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					
min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210			max	%Us	110
max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		drop-out		0/11-	40
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					
of 50/60Hz coil powered at 50Hz in-rush VA 210	A.C. avenue ''	wention of 20°C	max	%US	55
in-rush VA 210	AC average coll const				
		oi 50/60Hz coil powered at 50Hz	امنیت مدا	١/٨	210
nolaing VA 15					
			nolaing	VA	10



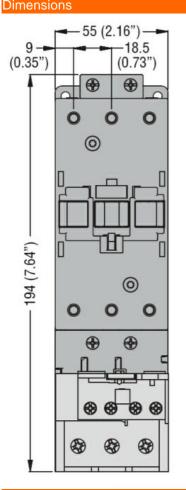


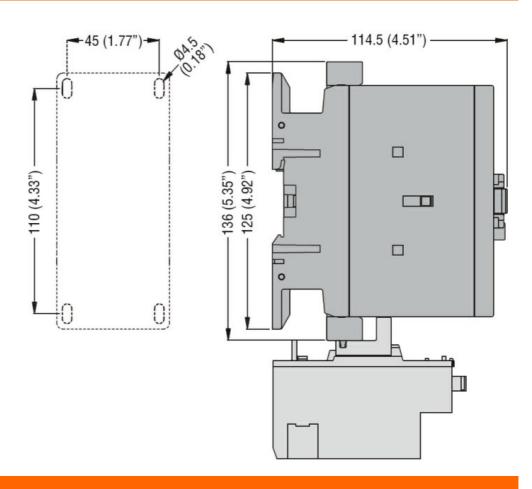
	of 50/60Hz coil powe	red at 60Hz			
	or 30/00112 con powe	ied at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	at 60Hz	riolaling	V/\	
	or ouriz con powered	at 00HZ	in-rush	VA	210
			holding	VA VA	15
Dissipation at holding	<20°C 50∐-z		Holding	W	5
Max cycles frequency	≥20 C 30HZ			VV	3
				ovoloo/b	2600
Mechanical operation Operating times				cycles/h	3600
	ontrol				
Average time for Us co					
	in AC	Clasina NO			
		Closing NO	min		10
			min	ms	12
		On anina NO	max	ms	28
		Opening NO	ma:.a	mc	0
			min	ms	8
	in DC		max	ms	22
	in DC	Clasica NC			
		Closing NO	!		40
			min	ms	40
		Opening NO	max	ms	85
		Opening NO	i-		20
			min	ms	20
III. ta abulaal data			max	ms	55
UL technical data	for three whose AC was	- to #			
Full-load current (FLA)	for three-phase AC mo	otor	-+ 400\/	۸	77
			at 480V	A	77
70.11.1.1.1.1.1.1	,		at 600V	Α	77
Yielded mechanical pe					
	for three-phase AC m	notor	000/000:		0.5
			200/208V	HP	25
			220/230V	HP	30
			460/480V	HP	60
0			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
Ambient conditions					
Temperature					
	Operating temperatur	·e			
			min	°C	-50
			max	°C	70
	Storage temperature				_
			min	°C	-60

ENERGY AND AUTOMATION

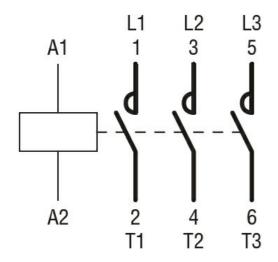
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ, 400VAC

	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



BF8000A400

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ, 400VAC

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
FTIM classification	

ETIM classificatior

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF80** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Ηъ 25 max Hz 400 IEC Conventional free air thermal current Ith 115 Α 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) 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 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 60 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 100 48V Α 100 75V Α 100 110V Α 80 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 100 48V Α 100 75V 100 Α



	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	A	50
	110V	A	40
150 DOO DOO 111 L/D 4.45 111 0 1 1 1	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	40 AV		0.0
	≤24V	A	80
	48V	A	70 70
	75V	A	70
	110V 220V	A A	60 64
IFC may current to in DC2 DC5 with L/D < 15 mg with 4 malos in series	2200	A	04
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<24)/	۸	00
	≤24V 48V	A A	90 90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse		- ' '	0.10
1 Total and Trade	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	aivi (i20)	A	800
Breaking capacity at voltage			
Distanting supusity 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)			
1 1 (**********************************	lth	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	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug conductor section			4.5
		min	mm²	1.5
	=	max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Weight			~	1020
			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
	Od according to EN/ISO 13489-1			
	3	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contate accordin	ng to IEC/EN 609474-4-1	THEOHAINEAN IOAU	Cyclos	
	ig to IEC/EIN 009474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	UHz		V	24
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		-	
	22p 2 2	min	%Us	20
		max	%Us	55
AC average coil consu	umption at 20°C	IIIdA	/003	
AC average coll corist				
	of 60Hz coil powered at 60Hz		1/4	040
		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 co	ontrol			
11.5.5.5.5.5.6.10.00.00	in AC			

in AC

Closing NO



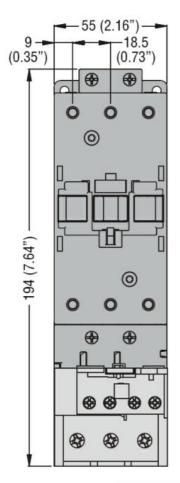


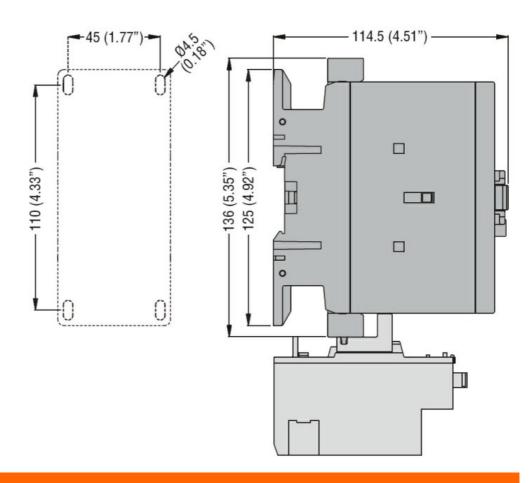
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			22
		min	ms	20
III taabalaalalata		max	ms	55
UL technical data	A for three mhose AC motor			
ruii-ioad current (FLA)	for three-phase AC motor	at 400V	Λ	77
		at 480V at 600V	A	77 77
Violded machanical pe	arforman an	at 600 v	A	11
Yielded mechanical pe	for three-phase AC motor			
	for three-phase AC motor	200/208V	HP	25
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75
General USE		010,000		
000.0.	Contactor			
		AC current	Α	115
Short-circuit protection	n fuse, 600V			
·	High fault			
	3	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
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
	<u> </u>	max	°C	70
	Storage temperature	,	0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude			m	3000
Resistance & Protection	n			2
Pollution degree Dimensions				3
Difficusions				



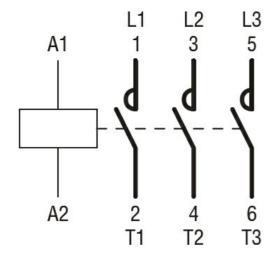
ENERGY AND AUTOMATION

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





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



BF8000A02460

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 60HZ, 24VAC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching **ENERGY AND AUTOMATION**

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



Product designation Power contactor Product type designation BF80

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 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
	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
	- <u>-</u> - 1 V		
	48V	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	A	50
	110V	A	40
150 DOS DOS 111 L/D 4.45 111 0 1 1 1	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-04) /		0.0
	≤24V	A	80
	48V	A	70 70
	75V	A	70
	110V 220V	A A	60 64
IEC may current to in DC2 DC5 with L/D < 15mg with 4 malog in parion	2200	A	04
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<24)/	٨	00
	≤24V 48V	A A	90 90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			0.10
1 Total and Trade	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	airi (izo)	A	800
Breaking capacity at voltage			
Distanting supusity 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
	AC3	W	3.8
Tightening torque for terminals	,		
5 5 11 11 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	Ibin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	max		
	r lexible w/o lug corluctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		anomabio		Screw / DIN rail
Fixing				35mm
Weight			α	1020
Conductor section			g	1020
Conductor section	ANA/O/I			
	AWG/kcmil conductor section			_
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	· ·	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contats according	ng to IEC/EN 609474-4-1		-,	yes
EMC compatibility	19 10 12 07 21 4 000 17 1 1 1			
AC coil operating				yes
			\ /	4.0
Rated AC voltage at 60	JIIZ		V	48
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
	·	min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			
	of 60Hz coil powered at 60Hz			
	5. 501 12 5011 powerou at 501 12	in-rush	VA	210
District Control of the	400°C FOLL-	holding	VA	15
Dissipation at holding :	SZU U 5UHZ		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
-	in AC			

in AC

Closing NO

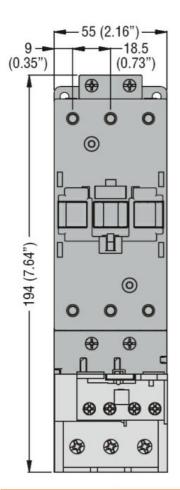


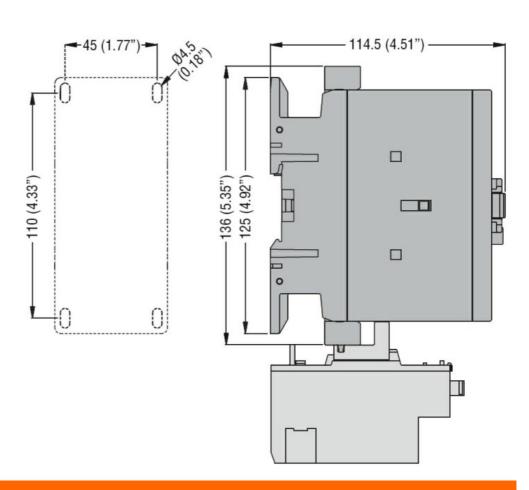


		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	63
	Opening NO	min	ms	20
		max	ms	55
UL technical data		Пах	1110	
	for three-phase AC motor			
	- F	at 480V	Α	77
		at 600V	Α	77
Yielded mechanical per	rformance	-		
·	for three-phase 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
	Standard fault	Fuse class		J
	Standard radit	Short circuit current	kA	10
		Fuse rating	KA A	200
		Fuse class	^	RK5
Ambient conditions		1 030 01033		1110
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
	-	min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protectio	n			
Pollution degree				3
Dimensions				

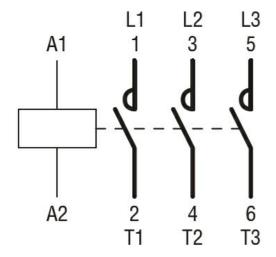


ENERGY AND AUTOMATION





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



BF8000A04860

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



Product designation Power contactor Product type designation RF80 Contact characteristics Nit. 3 Rated insulation voltage Ui IEC/EN V 1000 Rated insulation voltage Uimp kV 8 Operational frequency min Hz 20 IEC Conventional free air thermal current Ith Ac 115 Ac 115 Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤155°C) A 80 AC 36440V ≤55°C) A 80 AC-1 (≤155°C) A 80 AC 36440V ≤55°C) A 80 AC-2 (≤440V ≤55°C) A 80 AC 36440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC 36440V ≤50°C) A 80 AC-4 (400V ≤ MW 400 WW 42 AC-4 (400V ≤ MW 400 WW 45 AC-5 (500V ≤ MW 45 400 WW 45				20
Product type designation Series	Product designation			Power contactor
Number of poles				BF80
Rated insulation voltage Ui IEC/EN				
Rated insulation voltage UirpEC/EN V 1000 Rated impulse withstand voltage Uirip kV 8 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤70°C) A 80 AC-3 (≤4400 ≤55°C) A 80 AC-3 (≤4400 ≤55°C) A 80 AC-4 (4000°V) A 38 Rated operational power AC-3 (T≤55°C) 230°V kW 42 400°V kW 45 415°V kW 45 415°V kW 45 410°V kW 45 690°V kW 45 500°V kW 55 690°V kW 45 40°V kW 48 400°V kW 48 40°V kW 48 400°V kW 48 40°V kW 48 500°V kW 48	Number of poles		Nr.	3
Rated impulse withstand voltage Ulimp	Rated insulation voltage Ui IEC/EN		V	1000
Fig. 25			kV	8
Fig. 25	Operational frequency			
EC Conventional free air thermal current lth		min	Hz	25
Operational current le 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 power AC-3 (T≤55°C) 230V kW 22 400V kW 45 415V kW 45 440V kW 45 500V kW 55 690V kW 55 690V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 40V kW 43 40V kW 76 690V kW 120 EC max current le in DC1 with L/R ≤ 1ms with 2 poles in s		max	Hz	400
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	115
AC-1 (≤55°C) A 95 AC-3 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 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 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 524V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 100 75V A 60 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 48V A 100 48V A 100 48V A 100	Operational current le			
AC-1 (≤70°C)		AC-1 (≤40°C)	Α	115
AC-3 (≤440V ≤55°C)		•	Α	95
AC-3 (≤440V ≤55°C)		• • • • • • • • • • • • • • • • • • • •	Α	80
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 690V kW 55 1000V kW 37 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 95 690V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 75V A 100 75V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 75V A 100			Α	80
230V kW 22 400V kW 45 415V kW 45 415V kW 45 415V kW 45 415V kW 45 416V kW 45 500V kW 55 690V kW 55 690V kW 37 8 7 7 7 7 7 7 7 7		•	Α	38
230V kW 22 400V kW 45 415V kW 45 415V kW 45 415V kW 45 415V kW 45 416V kW 45 500V kW 55 690V kW 55 690V kW 37 8 7 7 7 7 7 7 7 7	Rated operational power AC-3 (T≤55°C)	,		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$,	230V	kW	22
A440V KW 45		400V	kW	45
Soov kW 55 690V kW 55 1000V kW 37		415V	kW	45
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120		440V	kW	45
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120		500V	kW	55
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 A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100		690V	kW	55
		1000V	kW	37
A00V kW 76 500V kW 95 690V kW 120	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 70 48V A 60 75V A 60 110V A 8 220V A 7 7 7 7 7 7 7 7 7		230V	kW	43
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V		400V	kW	76
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V		500V	kW	95
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		690V	kW	120
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		≤24V	Α	70
110V A 8 220V A -		48V	Α	60
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 100 48V A 100 75V A 100 110V A 80 220V A 9		75V	Α	60
IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 100 48V A 100 75V A 100 110V A 80 220V A 9		110V	Α	8
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	100
		48V	Α	100
		75V	Α	100
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100		110V	Α	80
≤24V A 100 48V A 100		220V	Α	9
48V A 100	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
		≤24V	Α	100
75V A 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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	A	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		<u> </u>
TEO THAX CUITER REPOSED OF WILL ETC 2 TOTAL WILL O POLES IN Series	≤24V	Α	80
	48V	A	70
	75V	A	70 70
	110V	A	60
	220V		64
IFC many asymptotic in DC2 DC5 with L/D < 45 man with 4 males in acrise	220 V	A	04
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
Object ("consultant language for AO (15 O /5 NO O A7 A)	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse	a (1= a)	_	
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)		Α	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
	AC3	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	lbin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	7.00 671.611	max		2
	Flexible w/o lug conductor section	Παλ		
	r lexible w/o lug corludctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		ano mable		Screw / DIN rail
Fixing				35mm
Weight			α	1020
Conductor section			g	1020
Conductor section	ANA(O/I) 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	· ·	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contats according	ng to IEC/EN 609474-4-1		-,	yes
EMC compatibility	19 10 12 07 21 4 000 17 1 1 1			
AC coil operating				yes
	01.1-		\ /	400
Rated AC voltage at 60	J□2		V	120
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
	•	min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			
	of 60Hz coil powered at 60Hz			
	5. 55. 12 56.1 powered at 56.12	in-rush	VA	210
		holding	VA VA	15
Discipation of the U.S.	<20°C FOLL-	riolaing		
Dissipation at holding:	≥∠U ∪ DU⊓∠		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
	in AC			

in AC

Closing NO



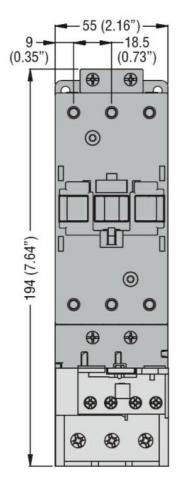


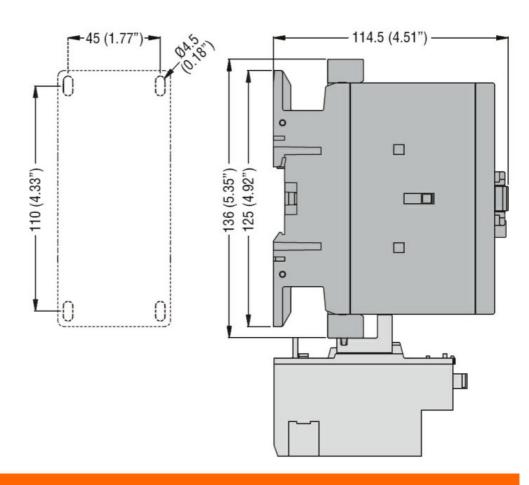
		_		
		min	ms	12
	0 : 110	max	ms	28
	Opening NO			0
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	65
	Opening NO	min	ms	20
		max	ms	55
UL technical data		IIIdA	1113	33
	for three-phase AC motor			
T dil load carrett (i EA)	Tor timee phase Ao motor	at 480V	Α	77
		at 600V	A	77
Yielded mechanical pe	rformance	at 000 v		
riolada modilamdal pe	for three-phase AC motor			
	Tor arrow pridoc 7to 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	fuse, 600V			
	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
Ambient conditions				
Temperature	-			
	Operating temperature			
		min	°C	-50
	0	max	°C	70
	Storage temperature		0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude	2		m	3000
Resistance & Protectio	II			3
Pollution degree				J
Dimensions				



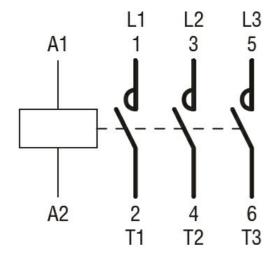
ENERGY AND AUTOMATION

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





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



BF8000A12060

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



Product designation

Product type designation

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



Power contactor

BF80

Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Η 25 max Hz 400 IEC Conventional free air thermal current Ith 115 Α 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) 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 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 60 Α 110V Α 8 220V Α

≤24V

48V

75V

110V

220V

≤24V

48V

75V

Α

Α

Α

Α

Α

Α

Α

100

100

100

100

100

100

80

9

IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series

IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series



	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
		A	040
Protection fuse	O (IEO)	۸	405
	gG (IEC)	A	125
Maties and (DMO all a)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.401.4		0.40
	440V	A	640
	500V	Α	625
· 	690V	A	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	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 s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug conductor section			4.5
		min	mm²	1.5
	- 	max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
-		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
1 01		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Fixing				35mm
Woight			~	
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data			•	
	Od according to EN/ISO 13489-1			
		rated load	cycles	1300000
		mechanical load	cycles	1500000
Mirror contate coordin	og to IEC/EN 600474 4 1	The chanical load	Cycles	
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	0Hz		V	220
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
	1 1	min	%Us	80
		max	%Us	110
	drop-out	max	,000	
	diop out	min	%Us	20
			%Us	55
AC 0.40ra== ==!! ===	umption at 20°C	max	/005	JJ
AC average coil consu				
	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 co	ontrol			
Avorage unite for 03 60	in AC			

in AC

Closing NO

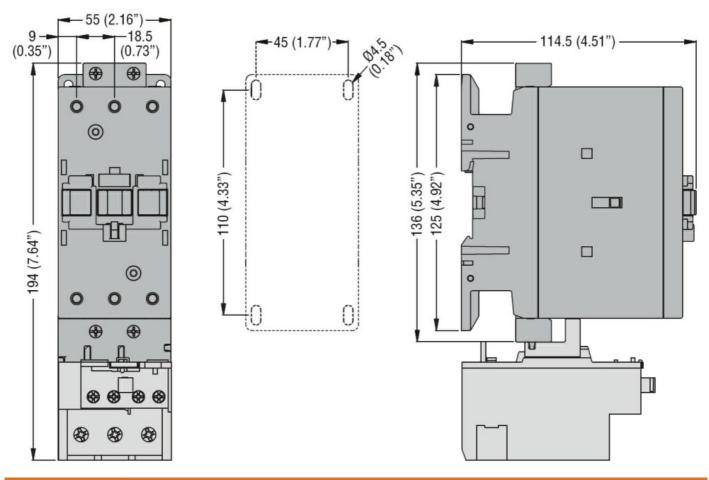




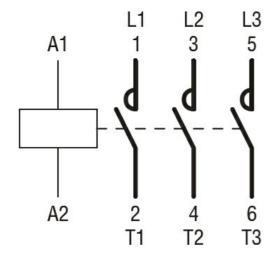
		_		
		min	ms	12
	0 : 110	max	ms	28
	Opening NO			0
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	65
	Opening NO	min	ms	20
		max	ms	55
UL technical data		IIIdA	1113	33
	for three-phase AC motor			
T dil load carrett (i EA)	Tor timee phase Ao motor	at 480V	Α	77
		at 600V	A	77
Yielded mechanical pe	rformance	at 000 v		
riolada modilamdal pe	for three-phase AC motor			
	Tor arrow pridoc 7to 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	fuse, 600V			
	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
Ambient conditions				
Temperature	-			
	Operating temperature			
		min	°C	-50
	0	max	°C	70
	Storage temperature		0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude	2		m	3000
Resistance & Protectio	II			3
Pollution degree				J
Dimensions				



ENERGY AND AUTOMATION



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



BF8000A22060

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF80** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Η 25 max Hz 400 IEC Conventional free air thermal current Ith 115 Α 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) 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 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 60 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 100 48V Α 100 75V Α 100 110V Α 80 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 100

48V

75V

Α

Α

100

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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	A	50
	110V	A	40
150 DOS DOS 111 L/D 4.45 111 0 1 1 1	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-04) /		0.0
	≤24V	A	80
	48V	A	70 70
	75V	A	70
	110V 220V	A A	60 64
IEC may current to in DC2 DC5 with L/D < 15mg with 4 malog in parion	2200	A	04
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<24)/	٨	00
	≤24V 48V	A A	90 90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			0.10
1 Total and Trade	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	airi (izo)	A	800
Breaking capacity at voltage			
Distanting supusity 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
	AC3	W	3.8
Tightening torque for terminals	,		
5 5 11 11 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	min	Nm	4
	max	Nm	5
	min	lbin	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 s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// G// III	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug conductor section			4.5
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Woight			α	1020
Weight			g	1020
Conductor section	A)A/Q/I			
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
	Od according to EN/ISO 13489-1			
	S .	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contate according	ng to IEC/EN 609474-4-1	Theorianical load	Cyclos	
	ig to IEC/EIN 009474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	0Hz		V	230
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		-	
		min	%Us	20
		max	%Us	55
AC average coil consu	umption at 20°C	max	,000	
AC average con consu				
	of 60Hz coil powered at 60Hz		١/٨	040
		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 co	ontrol			
	in AC			

in AC

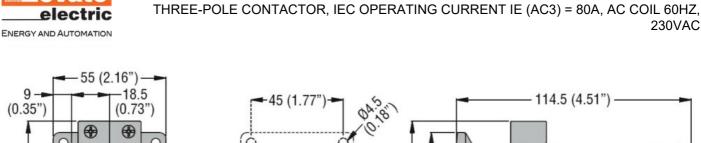
Closing NO

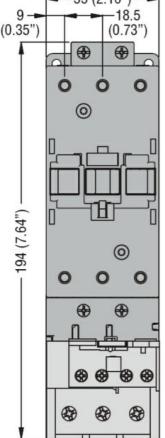


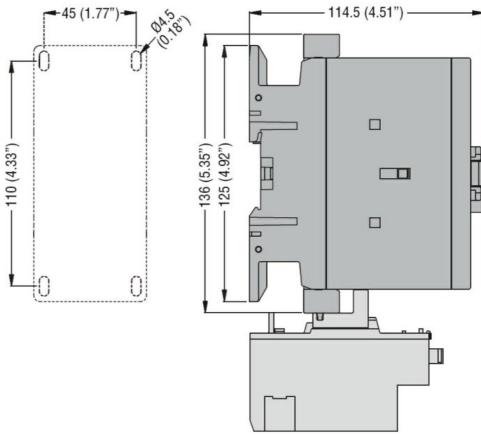


		_		
		min	ms	12
	0 : 110	max	ms	28
	Opening NO			0
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	65
	Opening NO	min	ms	20
		max	ms	55
UL technical data		IIIdA	1113	33
	for three-phase AC motor			
T dil load carrett (i EA)	Tor timee phase Ao motor	at 480V	Α	77
		at 600V	A	77
Yielded mechanical pe	rformance	at 000 v		
riolada modilamdal pe	for three-phase AC motor			
	Tor arrow pridoc 7to 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	fuse, 600V			
	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
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
	0	max	°C	70
	Storage temperature		0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude	2		m	3000
Resistance & Protectio	II			2
Pollution degree				3
Dimensions				

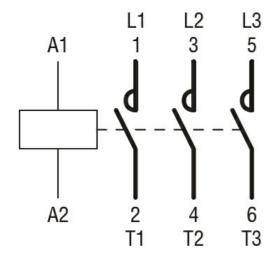








Wiring diagrams



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



BF8000A23060

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF80** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Η 25 max Hz 400 IEC Conventional free air thermal current Ith 115 Α 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) 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 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 60 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 100 48V Α 100 75V Α 100 110V Α 80 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 100 48V Α 100 75V 100 Α





	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	Α	70
	110V	Α	60
150	220V	Α	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	-0.43.4		
	≤24V	A	90
	48V	A	90
	75V	A	90
	110V	A	75
Chart time allowable augreent for 10e (IEC/ENGO047.1)	220V	A A	80
Short-time allowable current for 10s (IEC/EN60947-1)		A	640
Protection fuse	~C (IEC)	۸	105
	gG (IEC)	A	125 80
Making consoity (DMC value)	aM (IEC)	A A	800
Making capacity (RMS value)		A	800
Breaking capacity at voltage	440V	۸	640
	500V	A A	640 625
	690V	A	456
Resistance per pole (average value)	090 v	mΩ	0.6
Power dissipation per pole (average value)		11122	0.0
r ower dissipation per pole (average value)	Ith	W	7.9
	AC3	W	7.9 3.8
Tightening torque for terminals	AUS	٧٧	ა.0
rightening torque for terminals	min	Nlm	1
	min	Nm Nm	4 5
	max min	Nm Ibin	5 2.95
		Ibin	2.95 3.69
Tightening torque for coil terminal	max	ווטוו	J.U3
rightening torque for contentinal	min	Nm	0.8
	min max	Nm	0.8 1
	Παλ	INIII	1



		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug colluctor section		2	4.5
		min	mm²	1.5
	=	max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Woight			α	1020
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data			·	
	Od according to EN/ISO 13489-1			
	3	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contate according	ng to IEC/EN 609474-4-1	THEOHAITICAI TOAG	Cyclos	
	ig to IEC/EIN 009474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	0Hz		V	460
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out	max		- -
	a.op	min	%Us	20
		max	%Us	55
AC average sell core:	umption at 20°C	IIIdX	/003	00
AC average coil consu				
	of 60Hz coil powered at 60Hz			0.4.0
		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 co	ontrol			
, Jiago anto tot 03 00	in AC			

Closing NO

in AC

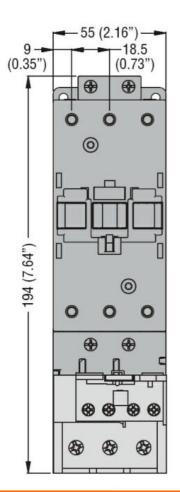


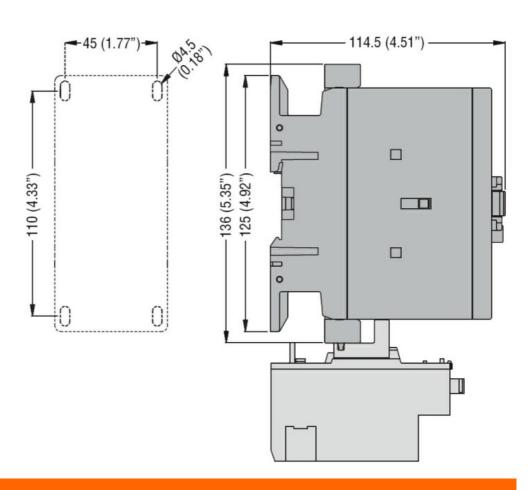


		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	77
		at 600V	Α	77
Yielded mechanical pe	erformance			
	for three-phase 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	fuse, 600V			
	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
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

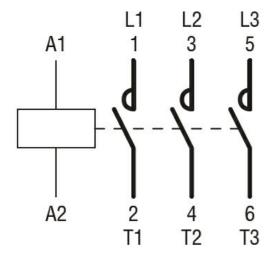


ENERGY AND AUTOMATION





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



BF8000A46060

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





			10 10 10
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 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
	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	A	100
	. 3 v	, ,	



	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			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	A	50
	110V	A	40
150 DOS DOS 111 L/D 4.45 111 0 1 1 1	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-04) /		0.0
	≤24V	A	80
	48V	A	70
	75V	A	70
	110V 220V	A A	60
IEC may current to in DC2 DC5 with L/D < 15mg with 4 poles in series	220 V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	٨	90
	≥24 V 48 V	A A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			0.10
1 Total and Trade	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	airi (izo)	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
	AC3	W	3.8
Tightening torque for terminals	,,,,,		3.0
2 2 1m	min	Nm	4
	max	Nm	5
	min	lbin	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 s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	IIIAX		
	r lexible w/o lug corluctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		4.10114010		Screw / DIN rail
Fixing				35mm
Weight			α	1020
Conductor section			g	1020
Conductor section	ANA/O/learnillands Indianas i			
	AWG/kcmil conductor section			_
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	· ·	rated load	cycles	1300000
		mechanical load	cycles	15000000
Mirror contats according	ng to IEC/EN 609474-4-1		-,	yes
EMC compatibility	19 10 12 07 21 4 000 17 1 1 1			
AC coil operating				yes
	01.1-		\/	F7F
Rated AC voltage at 60	JIIZ		V	575
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
	·	min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			<u> </u>
	of 60Hz coil powered at 60Hz			
	5. 501 12 5011 powerou at 501 12	in-rush	VA	210
District Control of the	400°C FOLL-	holding	VA	15
Dissipation at holding :	SZU U 5UHZ		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
-	in AC			

in AC

Closing NO



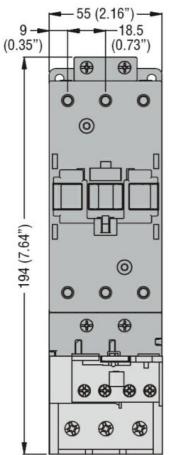


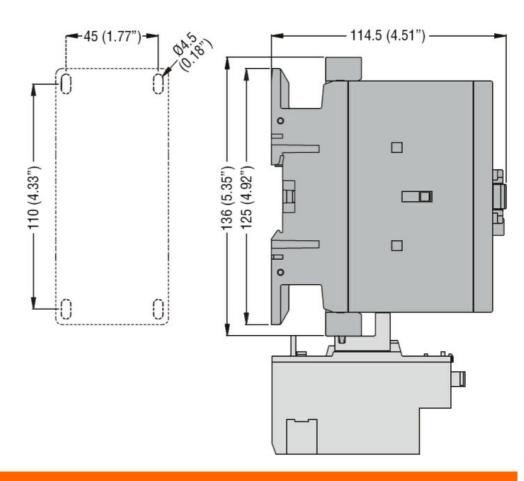
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
	_	min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
	for three-phase AC motor			
	,	at 480V	Α	77
		at 600V	Α	77
Yielded mechanical p	erformance	a. 555 v		
o.aca moonamou p	for three-phase AC motor			
	for three phase No motor	200/208V	HP	25
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75
General USE		37 3/000 V	111	73
General USL	Contactor			
	Contactor	AC current	۸	115
Chart aircuit protectio	n funo (COO)/	AC current	Α	110
Short-circuit protectio				
	High fault			400
		Short circuit current	kA	100
		Fuse rating	Α	200
	0	Fuse class		
	Standard fault	01		4.0
		Short circuit current	kA	10
		Fuse rating	Α	200
A 11 (1991		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ion			
Pollution degree				3
Dimensions				



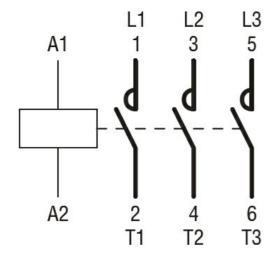
ENERGY AND AUTOMATION

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





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



BF8000A57560

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching