ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ, 230VAC



Product designation			Power contactor
Product type designation			BF65
Contact characteristics			DI 00
		n.	1
Number of poles		nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
•	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-1 (<u>≤</u> 70 C) AC-3 (≤440V ≤55°C)	A	65
	,		
Detail and a first and a second AQ A (TatAQQQ)	AC-4 (400V)	Α	31
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	50
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
120 max out of the mar bot with bit = 1mo with 2 poles in scries	≤24V	Α	70
	48V	A	70 70
	75V	A	70
	110V	A	60
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	70
	48V	Α	70
	75V	A	70
	110V	A	70
	220V	A	110
	220 V	^	110



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IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	Α	25
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
poiss in	≤24V	Α	45
	48V	A	40
	75V	A	40
	110V	A	30
	220V	A	5
IEC may current to in DC2 DC5 with L/D < 15mg with 2 notes in parion	220 V	^	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	204) /	۸	
	≤24V	A	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	Α	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	Α	65
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	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)	0001	mΩ	0.8
Power dissipation per pole (average value)		11122	0.0
Tower dissipation per pole (average value)	Ith	W	8
	AC3	W	3.4
Tightoning targue for terminals	ACS	VV	3.4
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	lbft	0.8
	max	lbft	0.74
		nr.	2
Max number of wires simultaneously connectable			
Max number of wires simultaneously connectable Conductor section			
Conductor section			
•	min		1.5
Conductor section	min max	mm² mm²	1.5 35



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ,

Power terminal protection according to IEC/EN 60529 P20 front			min	mm²	1.5
Mechanical features Operating position allowable states Vertical plan states Fixing Screw / DIN rail states 35 mm Weight g 1240 1240 Operations Vertical plan states 15000000 Blectrical life cycles 1000000 1600000 Electrical life cycles 1000000 1400000 Seftey related data rated load mechanical load load states in the properties of 5000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 10000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 1000000 10000000 1000000000 10000000000 10000000		U . 150/5N 0050	max	mm²	
Operating position Negretary position Vertical plan state pl	· ·	tion according to IEC/EN 60529			IP20 front
Priving Pri					
Fixing Server DIN rail 30° 1240 35mm 1240	Operating position		•		
Fixing Screw / DIN rail 35mm Weight g 1240					
Fixing			allowable		
Operations Cycles 15000000 Electrical life cycles 1400000 Safery related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1400000 cycles 15000000 Mirror contats according to IEC/EN 609474-4-1 yes 150000000 EMC compatibility yes 2 AC coll operating yes 2 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up max %Us 110 AC operating voltage max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 55 accompatition with the coil powered at 60Hz pick-up min %Us 55 AC operating voltage at 20°C min %Us 110 drop-out min %Us 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz in-rush voltage value fof 50/60Hz coil powered at 60Hz in-rush voltage value 15 of 50/60Hz coil powered at 60Hz in-rush voltage value 15	Fixing				
Mechanical life	Weight			g	1240
Electrical life Safety rolated data Performance level B10d according to EN/ISO 13489-1					
Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load voycles 1400000 150000000 150000000 150000000 150000000 15000000000 150000000 150000000 150000000 150000000 150000000 1500000000 1500000000 150000000000	Mechanical life			cycles	15000000
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1400000 mechanical load cycles 150000000 1500000000000000000000000	Electrical life			cycles	1400000
Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes yes yes EMC compatibility yes	Safety related data				
Mirror contats according to IEC/EN 609474-4-1 yes	Performance level B10	Od according to EN/ISO 13489-1			
Mirror contats according to IEC/EN 609474-4-1 yes			rated load	cycles	1400000
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz coil powered at 50Hz pick-up max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min min %Us 85 max %Us 110 drop-out min will 84 55 of 50/60Hz coil powered at 60Hz pick-up min will 84 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz and yill 84 60 max will 85 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz and yill 84 60 holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12			mechanical load	cycles	15000000
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz coil powered at 50Hz pick-up max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min min %Us 85 max %Us 110 drop-out min will 84 55 of 50/60Hz coil powered at 60Hz pick-up min will 84 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz and yill 84 60 max will 85 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz and yill 84 60 holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 of 60Hz coil powered at 60Hz in-rush holding VA 15 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12	Mirror contats according	ng to IEC/EN 609474-4-1			yes
AC coil operating Rated AC voltage at 50/60Hz V 230 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up max %Us 110 drop-out min %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max min pick-up %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 of 60Hz coil powered at 60Hz in-rush VA 195 holding VA 13 VA 10 holding VA 15 VA					
Rated AC voltage at 50/60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 AC operating voltage at 20°C min %Us 40 max %Us 55 AC operating voltage at 20°C in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 15 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 13 Dissipation at holding ≤20°C 50Hz W 5 Max cycles frequency W 5 Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC min ms 12					,
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up 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 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz in-rush VA 210 holding VA 15 of 60Hz coil powered at 60Hz in-rush VA 195 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 Dissipation at holding ≤20°C 50Hz Max cycles frequency Max cycles frequ		0/60Hz		V	230
of 50/60Hz coil powered at 50Hz pick-up max		.,		<u> </u>	
Pick-up max %Us 110	rie speramig remage	of 50/60Hz coil powered at 50Hz			
Max Mus 110 Min Mus 20 Min Mus 20 Min Mus 55 Min Mus 55 Min Mus 55 Min Mus Mus 55 Min Mus		•			
drop-out min %Us 20 max %Us 55		ριοίτ αρ	max	%Us	110
min Mus 20 55 of 50/60Hz coil powered at 60Hz pick-up min Mus 85 max Mus 110 drop-out min Mus 40 max Mus 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 13 of 60Hz coil powered at 60Hz in-rush vA 210 holding VA 15 Dissipation at holding ≤20°C 50Hz W 5 Max cycles frequency		dron-out	max	7000	110
Max Mus 55		diop out	min	%Us	20
of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 195 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 195 holding VA 15 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 control in AC Closing NO min ms 12					
Pick-up min %Us 85 max %Us 110 Morp-out min %Us 40 max %Us 55 Max Morp-out min %Us 55 Morp-out min %Us 55 Morp-out max %Us 55 Morp-out morp-o		of 50/60Hz coil powered at 60Hz	Пих	7000	
Max cycles frequency Mechanical operating times Max cycles frequency Max cycles fr		·			
Max Mus		ριοκ-αρ	min	%Hc	95
AC operating voltage at 20°C Of 50/60Hz coil powered at 50Hz In-rush VA 210 holding VA 15 Nolding VA 15 Nolding VA 13 Nolding VA 15 Nolding VA Nolding					
Min Mus 40 Mus 55		dron-out	IIIax	/003	110
Max Mus 55		diop-out	min	%Hc	40
AC operating voltage at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210 holding VA 15 of 50/60Hz coil powered at 60Hz in-rush VA 195 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 Dissipation at holding ≤20°C 50Hz W 5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12					
of 50/60Hz coil powered at 50Hz in-rush	AC aparating valtage	at 20°C	IIIdX	70US	33
in-rush VA 210 holding VA 15	AC operating voltage a				
holding		of 50/60Hz coil powered at 50Hz	:	١/٨	040
of 50/60Hz coil powered at 60Hz in-rush VA 195 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 Dissipation at holding ≤20°C 50Hz W 5 Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 12					
in-rush VA 195 holding VA 13 of 60Hz coil powered at 60Hz in-rush VA 210 holding VA 15 Dissipation at holding ≤20°C 50Hz W 5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12		of FO/COLL= only =	noiding	VA	10
holding VA 13		oi 50/60Hz coii powered at 60Hz	*	١/٨	105
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 control in AC Closing NO min ms 12					
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 control in AC Closing NO min ms 12		. (0011	holding	VA	13
boldingVA15Dissipation at holding ≤20°C 50HzW5Max cycles frequencyMechanical operationcycles/h3600Operating timesAverage time for Us control in ACClosing NOmin ms12		or bultz coil powered at 60Hz		١/٨	040
Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 12					
Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12	Disabate Children	40000 FOLL	holding		
Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 12		≤20°C 50HZ		VV	5
Operating times Average time for Us control in AC Closing NO min ms 12	•			. "	0000
Average time for Us control in AC Closing NO min ms 12				cycles/h	3600
in AC Closing NO min ms 12					
Closing NO min ms 12	Average time for Us co				
min ms 12					
		Closing NO			
max ms 28					
			max	ms	28

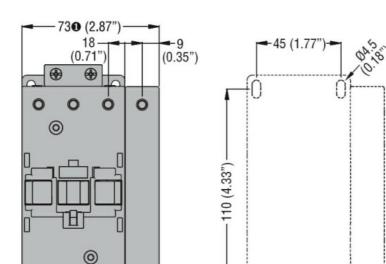


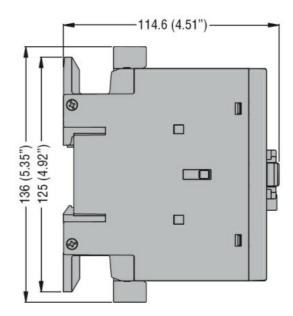
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ, 230VAC

		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 mot	or				
			at 480V	Α	65	
	_		at 600V	Α	62	
Yielded mechanical performance						
	for three-phase AC mo	otor				
			200/208V	HP	20	
			220/230V	HP	25	
			460/480V	HP	50	
0			575/600V	HP	60	
General USE	0					
	Contactor		A O	^	400	
Ambient conditions			AC current	Α	100	
Ambient conditions						
Temperature	On a ratio a tamen a rationa					
	Operating temperature			°C	-50	
			min	°C	-50 70	
	Ctorogo tomporaturo		max	<u> </u>	70	
	Storage temperature		min	°C	-60	
			min max	°C	-60 80	
Max altitude			IIIdX		3000	
Resistance & Protection	n			m	3000	
Pollution degree	·····				3	
Dimensions					J	
Dimensions						

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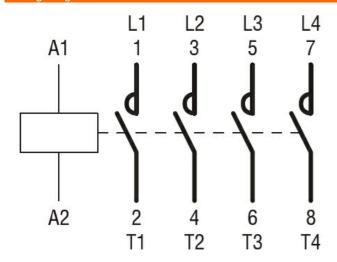
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ, 230VAC





● BF80T2 82mm/3.23"

Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching