

## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,



			30
Product designation			Power contactor
Product type designation			BF65
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	100
Operational current le			
·	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)	,		
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational current AC-3 (T≤55°C)			
	230V	Α	65
	400V	Α	65
	415V	Α	65
	440V	Α	65
	500V	Α	53
	690V	Α	47
	1000V	Α	25
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			
	≤24V	Α	70





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	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	A	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	220 V		
TEC max current le in DCT with L/N = This with 5 poles in series	<04)/	^	70
	≤24V	A	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	Α	110
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	2201	- , ,	
TEO THAN GUITORE TO HE DOO DOO WILL E/TY = TOTHO WILL 2 POICE IT SOLLED	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	30
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	A	52
IFC many assument to in DC2 DC5 with 1/D < 45mm with 4 males in posice	220 V	Α	32
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	40 AV /		00
	≤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)	A	80
Making capacity (RMS value)	aivi (ILO)	A	650
			000
Breaking capacity at voltage	4.401.4	Δ.	F00
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC-3	W	3.4
Tightening torque for terminals			





# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ, 24VAC

Operations         Cycles         15000000           Electrical life         cycles         15000000           Safety related data           Performance level B10d according to EN/ISO 13489-1         rated load cycles         1400000 cycles         15000000           EMC compatibility         yes         AC coil operating         yes         AC coil operating voltage at 60Hz         y         24         AC operating voltage         yes         AC operating voltage         min         %Us         80         80         Moderate with the control of t					
Min			min	Nm	4
Tightening torque for coil terminal Tightening torque for coil terminal Tightening torque for coil terminal    min   Nm   0.8   max   Nm   1   10.8			max	Nm	5
Tightening torque for coil terminal   min   Nm   0.8   max   Nm   1   min   Nm   Nm   1   min   Nm   Nm   1   min   Nm   Nm   1   min   Nm   Nm   Nm   Nm   Nm   Nm   Nm   N			min	lbin	2.95
Max number of wires simultaneously connectable   Max   Ma			max	lbin	3.69
Max number of wires simultaneously connectable   Max   Ma	Tightening torque for	coil terminal			
Max number of wires simultaneously connectable   Max number of wires simultaneously conductor section   Max number of Plexible w/o lug conductor section   Max number of Nu			min	Nm	0.8
Max number of wires simultaneously connectable   Niz   2					
Max number of wires simultaneously connectable   Nic 2					
Max number of wires simultaneously connectable         Nr.         2           Conductor section         aWG/Kcmil         max         2           Flexible w/o lug conductor section         min max         mm²         1.5 max           Flexible c/w lug conductor section         min max         mm²         3.5           Flexible c/w lug conductor section         min mm²         1.5 max         mm²         3.5           Power terminal protection according to IEC/EN 60529         iP20 front         iP20 f					
Conductor section         max         z           Flexible w/o lug conductor section         min         mm²         1.5           Flexible c/w lug conductor section         min         mm²         1.5           Mochanical features           Operating position         normal allowable         Vertical plan ±30°           Fixing         Screw / DIN rail 35mm           Weight         g         1020           Operations           Weight         g         1020           Operations           Weight         g         1020           Operations           Tated load base of the colling of EN/ISO 13489-1         Tated load colload cording to EN/ISO 13489-1         Tated load colload cording to EN/ISO 13489-1         Tated load colload	Max number of wires	simultaneously connectable			
Flexible w/o lug conductor section		omakanosasiy sormoskasis			
Persible w/o lug conductor section   min max   1.5 max   mm²   1.5 max   mm²   3.5 max	Conductor Scotlon	AMG/Kemil			
Flexible w/o lug conductor section		AWG/Remii	may		2
Piexible c/w lug conductor section   min mex max max max max max max max max max ma		Florible w/o lug conductor coction	IIIax		
Flexible c/w lug conductor section   Flexible c/w lug conductor   Flexible c/w lug conductor section   Flexible c/w lug conductor section   Flexible c/w lug conductor section   Flexible c/w lug		Flexible w/o lug conductor section			4 5
Flexible c/w lug conductor section					
Minimax		Elegation of the state of the s	max	mm²	<b>35</b>
Power terminal protection according to IEC/EN 60529         max         mm²         35           Mechanical features         Operating position         IP20 front           Fixing         Screw / DIN rail allowable         5 Screw / DIN rail allowable		Flexible c/w lug conductor section			4 =
Power terminal protection according to IEC/EN 60529         IP20 front           Mechanical features         Vertical plan ±30°           Corew / DIN rail allowable         ±30°         Vertical plan ±30°         Screw / DIN rail allowable         ±30°         Vertical plan ±30°         DIN rail allowable         ±30°         DIN DOO         DIN D					
Mechanical features         Vertical plan allowable         430°           Fixing         Screw / DIN rail 35mm           Weight         g 1020           Operations         y 1020           Mechanical life         cycles 15000000           Electrical life         cycles 1400000           Safety related data         rated load performance level B10d according to EN/ISO 13489-1         rated load performance level B10d according to EN/ISO 13489-1           EMC compatibility         rated load performance level B10d according to EN/ISO 13489-1         y 24           EMC compatibility         y 24           AC coil operating         y 24           Rated AC voltage at 60Hz         y 24           AC operating voltage         min min yells sold sold powered at 60Hz pick-up         y 30         110           drop-out         min yells sold sold sold sold sold sold sold s			max	mm²	
Operating position         normal allowable         Vertical plan 430°           Fixing         Screw / DIN rail 35mm           Weight         g         1020           Operations         vcles         15000000           Electrical life         cycles         15000000           Electrical life         cycles         1400000           Safety related data         rated load         cycles         15000000           EPerformance level B10d according to EN/ISO 13489-1         rated load         cycles         15000000           EMC compatibility         yes         15000000           EMC compatibility         yes         15000000           EAct AC voltage at 60Hz         yes         15000000           EAct AC voltage at 60Hz coil powered at 60Hz pick-up         min         %Us         80           AC operating voltage         min         %Us         80           drop-out         min         %Us         80           AC average coil consumption at 20°C         in-rush         %Us         50           AC average coil consumption at 20°C         in-rush holding         VA         210           in-rush holding < VA		ction according to IEC/EN 60529			IP20 front
Normal allowable   Section   Sect					
Fixing Screw / DIN rail 35mm Weight g 1020 Operations  Mechanical life cycles 15000000 Electrical life cycles 1400000 Safety related data Performance level B10d according to EN/ISO 13489-1  Frated load cycles 1400000 EMC compatibility rated load cycles 15000000 EMC compatibility yes  AC coil operating Rated AC voltage at 60Hz AC operating voltage  of 60Hz coil powered at 60Hz pick-up  min  %Us 80 max  %Us 110  drop-out  min  %Us 80 max  %Us 110  drop-out  min  %Us 80 max  %Us 55  AC average coil consumption at 20°C of 60Hz coil powered at 60Hz	Operating position				
Fixing         Screw / DIN rail 35mm           Weight         g 1020           Operations         ————————————————————————————————————			normal		Vertical plan
Pixing   9   1020			allowable		±30°
Veright   Samm   Sam	Eiving				Screw / DIN rail
Operations         Cycles         15000000           Electrical life         cycles         15000000           Safety related data           Performance level B10d according to EN/ISO 13489-1         rated load cycles         1400000 cycles         15000000           EMC compatibility         yes         AC coil operating         yes         AC coil operating voltage at 60Hz         y         24         AC operating voltage         yes         AC operating voltage         min         %Us         80         80         Moderate with the control of t	rixing				35mm
Mechanical life         cycles         15000000           Electrical life         cycles         1400000           Safety related data           rated load mechanical load cycles         1400000 mechanical load cycles         15000000           EMC compatibility         yes           AC coil operating         V         24           AC operating voltage         with max max mechanical load mechanical pick-up min min max max mechanical mechanical pick-up min min max mechanical mechanic	Weight			g	1020
Electrical life cycles 1400000 Safety related data  Performance level B10d according to EN/ISO 13489-1  rated load cycles 1400000 mechanical load cycles 15000000  EMC compatibility yes  AC coil operating  Rated AC voltage at 60Hz v 24  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 consumption at 20°C of 60Hz coil powered at 60Hz  in-rush VA 210 holding VA 15  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  yccles/h 3600	Operations				
Safety related data         Performance level B10d according to EN/ISO 13489-1       rated load mechanical load cycles of 1400000 mechanical load cycles of 15000000       1400000 mechanical load cycles of 15000000         EMC compatibility       yes         AC coil operating       V       24         Rated AC voltage at 60Hz       V       24         AC operating voltage       min max       %Us 80 max       80 max         pick-up       min max       %Us 110 max       10 max         drop-out       min max       %Us 20 max       55         AC average coil consumption at 20°C of 60Hz coil powered at 60Hz       in-rush holding VA 210 holding VA 15       VA 210 holding VA 15         Dissipation at holding ≤20°C 50Hz       W 5       Max cycles frequency         Mechanical operation       cycles/h 3600	Mechanical life			cycles	15000000
Safety related data         Performance level B10d according to EN/ISO 13489-1       rated load mechanical load cycles       1400000 15000000         EMC compatibility       yes         AC coil operating       V       24         Rated AC voltage at 60Hz       V       24         AC operating voltage       min max       %Us       80 max         pick-up       min max       %Us       110 max         drop-out       min max       %Us       20 max         AC average coil consumption at 20°C of 60Hz coil powered at 60Hz       in-rush holding       VA       210 holding         Dissipation at holding ≤20°C 50Hz       W       5         Max cycles frequency         Mechanical operation       cycles/h       3600	Electrical life			cycles	1400000
Performance level B10d according to EN/ISO 13489-1  rated load cycles 1400000 mechanical load cycles 15000000  EMC compatibility yes  AC coil operating  Rated AC voltage at 60Hz  AC operating voltage  of 60Hz coil powered at 60Hz	Safety related data				
EMC compatibility         rated load mechanical load vocles         1400000 tooloon           EMC compatibility         yes           AC coil operating         V         24           AC operating voltage         yus         24           AC operating voltage         min         %Us         80           pick-up         min         %Us         110           drop-out         min         %Us         20           max         %Us         55           AC average coil consumption at 20°C         in-rush holding         VA         210           holding         VA         15           Dissipation at holding ≤20°C 50Hz         W         5           Max cycles frequency           Mechanical operation         cycles/h         3600		0d according to EN/ISO 13489-1			
mechanical load         cycles         15000000           EMC compatibility         yes           AC coil operating         V         24           Rated AC voltage at 60Hz         V         24           AC operating voltage         min         %Us         80           pick-up         min         %Us         80           max         %Us         110           drop-out         min         %Us         20           max         %Us         55           AC average coil consumption at 20°C         in-rush holding         VA         210 holding           pick-up         min-rush holding         VA         15           Dissipation at holding ≤20°C 50Hz         W         5           Max cycles frequency           Mechanical operation         cycles/h         3600		3	rated load	cvcles	1400000
EMC compatibility yes  AC coil operating  Rated AC voltage at 60Hz  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 consumption at 20°C  of 60Hz coil powered at 60Hz  in-rush VA 210  holding VA 15  Dissipation at holding ≤20°C 50Hz  Mechanical operation  yes  yes  AV  24  AC operating  min %Us 80  max %Us 55  In-rush VA 210  holding VA 15  Dissipation at holding ≤20°C 50Hz  W 5				-	
AC coil operating  Rated AC voltage at 60Hz  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 consumption at 20°C  of 60Hz coil powered at 60Hz  in-rush VA 210  holding VA 15  Dissipation at holding ≤20°C 50Hz  Mechanical operation  cycles/h 3600	FMC compatibility		moonamour road	0,0.00	
Rated AC voltage at 60Hz         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 consumption at 20°C       in-rush VA 210         of 60Hz coil powered at 60Hz       in-rush VA 15         Dissipation at holding ≤20°C 50Hz       W 5         Max cycles frequency         Mechanical operation       cycles/h 3600					yes
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 consumption at 20°C of 60Hz coil powered at 60Hz  in-rush VA 210 holding VA 15  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  cycles/h 3600		S0Hz		\/	24
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 consumption at 20°C of 60Hz coil powered at 60Hz  in-rush VA 210 holding VA 15  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  cycles/h 3600				v	<u> </u>
pick-up  min %Us 80 max %Us 110  drop-out  min %Us 20 max %Us 55  AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  in-rush VA 210 holding VA 15  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  cycles/h 3600	AC operating voltage				
min   %Us   80   max   %Us   110		•			
drop-out       max       %Us       110         min max       %Us       20 max       %Us       55         AC average coil consumption at 20°C of 60Hz coil powered at 60Hz       in-rush vA 210 holding VA 15         Dissipation at holding ≤20°C 50Hz       W 5         Max cycles frequency       cycles/h 3600		ріск-ир	•.	0/11-	0.0
drop-out         min       %Us       20         max       %Us       55         AC average coil consumption at 20°C       In-rush       VA       210         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					
min max       %Us 55         AC average coil consumption at 20°C of 60Hz coil powered at 60Hz       In-rush VA 210 holding VA 15         Dissipation at holding ≤20°C 50Hz       W 5         Max cycles frequency       Cycles/h 3600		_	max	%Us	110
max       %Us       55         AC average coil consumption at 20°C of 60Hz coil powered at 60Hz       in-rush VA 210 holding VA 15         Dissipation at holding ≤20°C 50Hz       W 5         Max cycles frequency       cycles/h 3600		drop-out			
AC average coil consumption at 20°C  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					
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			max	%Us	55
in-rush VA 210 holding VA 15  Dissipation at holding ≤20°C 50Hz W 5  Max cycles frequency  Mechanical operation cycles/h 3600	AC average coil cons	•			
holdingVA15Dissipation at holding ≤20°C 50HzW5Max cycles frequencyCycles/h3600		of 60Hz coil powered at 60Hz			
Dissipation at holding ≤20°C 50Hz W 5  Max cycles frequency  Mechanical operation cycles/h 3600			in-rush	VA	210
Dissipation at holding ≤20°C 50Hz W 5  Max cycles frequency  Mechanical operation cycles/h 3600			holding	VA	15
Max cycles frequency Mechanical operation cycles/h 3600	Dissipation at holding	≤20°C 50Hz	<u> </u>	W	5
Mechanical operation cycles/h 3600					
				cycles/h	3600
	Operating times			,	



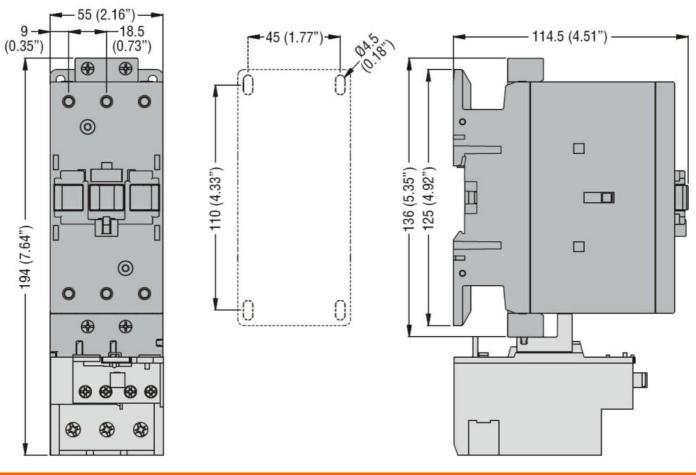


## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

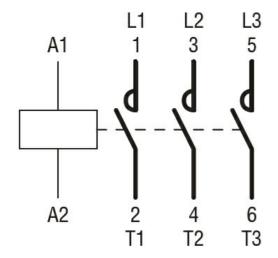
Average time for Us of	ontrol				
· ·	in AC				
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
			min	ms	40
		0 1 110	max	ms	85
		Opening NO	•.		00
			min	ms	20
III to chained data			max	ms	55
UL technical data Rated operational volt	ago AC (III.)			V	600
		otor		V	600
i uli-loau culletii (FLA	) for three-phase AC m	UlUI	at 480V	٨	65
			at 600V	A A	62
Violded machanical n	orformanco		at 600 v	A	02
Yielded mechanical pe	for three-phase AC n	ootor			
	ioi tillee-pilase AC li	ilotoi	200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE			373/000 V	- ' ''	
Concidi COL	Contactor				
	Contactor		AC current	Α	100
Short-circuit protection	n fuse, 600V		7.0 00		
	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 temperatu	re			
			min	°C	-50
			max	°C	70
	Storage temperature				
			min	°C	-60
			max	°C	80
Max altitude				m	3000
Resistance & Protecti	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



#### BF6500A02460

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching