

# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 230VAC



Product designation		Power contactor
Product type designation		BF65
Contact characteristics		
Number of poles	nr.	3
Rated insulation voltage Ui	V	1000
Rated impulse withstand voltage Uimp	kV	8
Operating frequency		
Operational frequency min	Hz	25
Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	100
Operating current		
Operational current AC1 (≤40°C)	Α	100
Operational current AC3 (≤440V ≤55°C)	Α	65
Operational current AC4 (400V)	Α	31
Rated operational power AC1 (T≤40°C)		
230V	kW	38
400V	kW	65
500V	kW	82
690V	kW	114
Rated operational power AC3 (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
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		
Breaking capacity 440V	Α	520
Breaking capacity 500V	Α	425
Breaking capacity 690V	Α	376
Resistance per pole (average value)	mΩ	0.8
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	8
AC3	W	3.4
Fineltonia e torrera for torreinala		
rightening torque for terminals		
rightening torque for terminals min	Nm	4
	Nm Nm	4 5



### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

Tightening torque for call terminal         min (max) (hit (max) (hit (max)) (hit					
max   max   min   1   10t   10, 1	Tightening torque for o	coil terminal			
min         bit         0.84           max number of wires simultaneously connectable         nr.         2           Conductor section         AWG         min         nr.         2           Flexible w/o lug conductor section         min         mm²         1.5         1.0         1.5         1.5         1.0			min	Nm	0.8
max number of wires simultaneously connectable         max         lbft         0.74           Conductor section         AWG         min         14           Flexible w/o lug conductor section         min         mm         1.5           Flexible c/w lug conductor section         min         mm²         1.5           Flexible c/w lug conductor section         min         mm²         3.5           Flexible c/w lug conductor section         min         mm²         1.5           max         mm²         3.5         1.5           Power terminal protection according to IEC/EN 60529         IP20 front         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.0         1.0         1.5         1.5         1.5         1.0         1.5			max	Nm	1
max number of wires simultaneously connectable         nr.         2           Conductor section         AWG         min max         2           Flexible w/o lug conductor section         min mm² mm² mm² max         1.5 max           Flexible c/w lug conductor section         min mm² mm² mm² mm² mm² mm² mm² mm² mm² mm			min	lbft	8.0
AWG			max	lbft	0.74
AWG	max number of wires s	simultaneously connectable		nr.	2
Pictible w/o lug conductor section					
Pictible w/o lug conductor section		AWG			
Plexible w/o lug conductor section			min		14
Flexible w/o lug conductor section					
Plexible c/w lug conductor section		Flexible w/o lug conductor section			
Max		Tioxible wie lag behadeler beetien	min	mm²	1.5
Flexible c/w lug conductor section   min max must   1.5 max must   3.5 max must					
Name		Flexible c/w lug conductor section	IIIdX	111111	
Max   Max		r lexible c/w lug conductor section	min	mm²	1 5
Power terminal protection according to IEC/EN 60529					
Auxiliary contact characteristics   Operational current AC1 (s40°C)	Dawer tarminal protect	tion according to IEC/EN COESO	IIIdX	ППП	
Operating current AC1 (s40°C)         A 100           Operating current DC13         110V         A Screw / DIN r 35mm           Ambient conditions           Temperature           Operating temperature         min °C -50 max °C 70           Storage temperature         min °C -60 max °C 80           Max altitude         m 3000           Operating position         normal allowable         vertical plan ±30°           Mounting         Screw / DIN r 35mm           Weight         g 1.02           Operations           Mechanical life         Cycles 15000000           Electrical life         Cycles 15000000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load mechanical load  (cicli 1400000 mechanical load Cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC coil operating         AC coil operating           AC coil operating         min %Us 0.8 max %Us 0.8 max %Us 0.8 max %Us 1.1					IPZU ITONI
Ambient conditions	-			Λ	100
Ambient conditions		,		А	100
A	Operating current DC1	13			0 / 5/11
Ambient conditions   Samm			110V	Α	
Temperature	A I				35MM
Operating temperature					
Max altitude	Temperature				
Max altitude		Operating temperature			
Storage temperature			min		
Max altitude         min max         °C b 80 80 80 80 80 80 80 80 80 80 80 80 80			max	°C	70
Max altitude         m         3000           Operating position         normal allowable         Vertical plan 430°           Mounting         Screw / DIN 135mm           Weight         g         1.02           Operations         g         1.02           Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data         rated load mechanical load         Cicli Cicli 1500000           Safety related data         Cicli 15000000         15000000           Safety related data         Verent Cicli 15000000         Verent Cicli 15000000           Safety related data         Cicli 15000000         Verent Cicli 15000000         Verent Cicli 15000000           Safety related data         Cicli 15000000         Verent Cicli 15000000		Storage temperature			
Max altitude         m         3000           Operating position         normal allowable         Vertical plan ±30°           Mounting         Screw / DIN rought         Screw / DIN rought           Weight         g         1.02           Operations         Cycles         15000000           Bechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data         rated load mechanical load         Cicli         1400000           Performance level B10d according to EN/ISO 13489-1         rated load mechanical load         Cicli         15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         yes           AC operating voltage         min         %Us         0.8           pick-up         min         %Us         0.8           min         %Us         0.8           min         %Us         0.8           min         %Us         0.8           min         %Us         1.1			min	°C	-60
Operating position         normal allowable         Vertical plan ±30°           Mounting         Screw / DIN r 35mm           Weight         g 1.02           Operations         Weight (Cycles)         15000000           Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data         Fated load (Cicli)         1400000           Performance level B10d according to EN/ISO 13489-1         rated load (Cicli)         15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating voltage           of 50/60Hz coil powered at 50Hz pick-up         min (%Us 0.8 max) %Us 0.8 max) %Us 1.1			max	°C	80
Nounting   Nounting   Screw / DIN rooms   DIN rooms   DIN rooms   DIN rooms   DIN rooms   DIN rooms   DI	Max altitude			m	3000
Nounting   Nounting   Screw / DIN rooms   DIN rooms   DIN rooms   DIN rooms   DIN rooms   DIN rooms   DI	Operating position				
Mounting         allowable screw / DIN rought s5mm           Weight         g 1.02           Operations         Wechanical life         Cycles 15000000           Electrical life         Cycles 1400000           Safety related data         Performance level B10d according to EN/ISO 13489-1         rated load related load related load recording to IEC/EN 609474-4-1         yes           EMC compatibility         yes           EMC conpatibility         yes           AC operating Voltage         AC operating Voltage           Min pick-up         min wolts         %Us 0.8 max wolts         0.8 max wolts         1.1			normal		Vertical plan
Mounting         Screw / DIN rad 35mm           Weight         g         1.02           Operations           Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load Cicli 1400000 mechanical load Cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating voltage           Min %Us 0.8 max %Us 1.1			allowable		•
Weight         g         1.02           Operations         Weight         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load mechanical load Cicli 1400000 mechanical load Cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating voltage           AC operating voltage           min %Us 0.8 max %Us 0.8 max %Us 1.1					Screw / DIN rail
Weight         g         1.02           Operations         Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load Cicli 1400000 mechanical load Cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating           AC operating voltage         min %Us 0.8 max %Us 1.1	Mounting				
Operations           Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load Cicli 1400000 mechanical load Cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating voltage           AC operating voltage         min %Us 0.8 max %Us 1.1	Weight			a	
Mechanical life         Cycles         15000000           Electrical life         Cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load cicli 1400000 mechanical load cicli 15000000           Mirror contats according to IEC/EN 609474-4-1         yes           EMC compatibility         yes           AC coil operating         AC operating voltage           AC operating voltage         min %Us 0.8 max %Us 1.1				9	
Electrical life Cycles 1400000  Safety related data  Performance level B10d according to EN/ISO 13489-1  rated load Cicli 1400000 mechanical load Cicli 15000000  Mirror contats according to IEC/EN 609474-4-1  EMC compatibility yes  EMC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1	•			Cycles	15000000
Safety related data  Performance level B10d according to EN/ISO 13489-1  rated load Cicli 1400000 mechanical load Cicli 15000000  Mirror contats according to IEC/EN 609474-4-1 yes  EMC compatibility yes  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1					
Performance level B10d according to EN/ISO 13489-1  rated load Cicli 1400000 mechanical load Cicli 15000000  Mirror contats according to IEC/EN 609474-4-1  EMC compatibility yes  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1				Cycles	1400000
rated load Cicli 1400000 mechanical load Cicli 15000000  Mirror contats according to IEC/EN 609474-4-1  EMC compatibility  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1	•	Od according to EN/ISO 13490 1			
Mirror contats according to IEC/EN 609474-4-1  EMC compatibility  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1	renormance level bit	od according to EN/ISO 13469-1	الموالم مناهد	Ciali	4.400000
Mirror contats according to IEC/EN 609474-4-1  EMC compatibility  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz pick-up  min %Us 0.8 max %Us 1.1					
EMC compatibility  AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz  pick-up  min %Us 0.8  max %Us 1.1		150/51/000/54	mechanicai ioad	Cicii	
AC coil operating  AC operating voltage  of 50/60Hz coil powered at 50Hz  pick-up  min %Us 0.8  max %Us 1.1		ng to IEC/EN 6094/4-4-1			
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 0.8 max %Us 1.1					yes
of 50/60Hz coil powered at 50Hz pick-up min %Us 0.8 max %Us 1.1					
pick-up min %Us 0.8 max %Us 1.1	AC operating voltage				
pick-up min %Us 0.8 max %Us 1.1		of 50/60Hz coil powered at 50Hz			
max %Us 1.1					
			min	%Us	0.8
		drop-out		-	
		2.07 001			

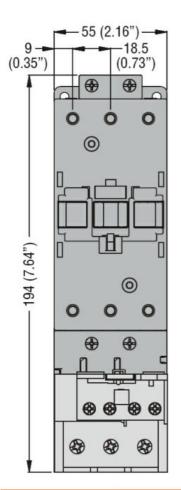


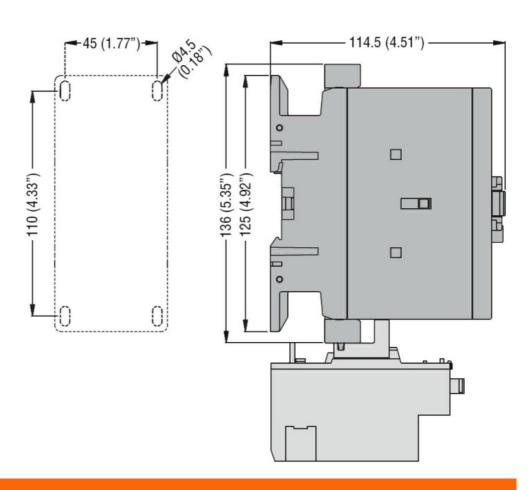
## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 230VAC

		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.4
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up		0/11	
		min	%Us	0.8
		max	%Us	1.1
	drop-out		0/11-	0.0
		min	%Us	0.2
A O		max	%Us	0.55
AC operating voltage	of FO/GOLLT gold newared at FOLLT			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	210
			VA VA	
	of FO/GOLLT and powered at GOLLT	holding	VA	15
	of 50/60Hz coil powered at 60Hz	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	Holding	ν <u>Λ</u>	13
	or our iz con powered at our iz	in-rush	VA	210
		holding	VA	15
Dissipation at holding	<20°C 50Hz	Holding	W	5.0
			• • •	0.0
Max cycles frequency				
Max cycles frequency Mechanical operations			Cycles/h	3600
Mechanical operations			Cycles/h	3600
			Cycles/h	3600
Mechanical operations Operating times			Cycles/h	3600
Mechanical operations Operating times	ontrol in AC		Cycles/h	3600
Mechanical operations Operating times	ontrol	min	Cycles/h	12
Mechanical operations Operating times	ontrol in AC			
Mechanical operations Operating times	ontrol in AC	min	ms	12
Mechanical operations Operating times	ontrol in AC Closing NO	min	ms	12 28 8
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO	min max	ms ms	12 28
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO	min max min	ms ms	12 28 8
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO	min max min max	ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO	min max min max at 480V	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO ofor three-phase AC motor	min max min max	ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO ofor three-phase AC motor	min max min max at 480V at 600V	ms ms ms ms	12 28 8 22 65 62
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V	ms ms ms A A	12 28 8 22 65 62
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 200/208V at 220/230V	ms ms ms A A	12 28 8 22 65 62 20 25
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 65 62 20 25 50
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical pe	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 200/208V at 220/230V	ms ms ms A A	12 28 8 22 65 62 20 25
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 65 62 20 25 50
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical pe	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 65 62 20 25 50 60
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical per General USE	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 65 62 20 25 50
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical per General USE  Other features	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 65 62 20 25 50 60
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical per General USE	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 65 62 20 25 50 60

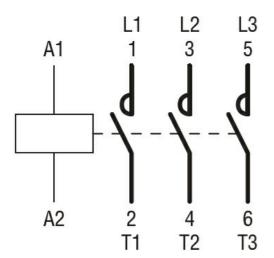


ENERGY AND AUTOMATION





#### Wiring diagrams



#### Certifications and compliance

#### Certifications

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

#### Compliance

cULus





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

#### ETIM 6 classification

EC000066 - Power contactor, AC switching