



Product designation				Power contactor
Product type designation				BF65
Contact characteristics				
Number of poles	Nr.			3
Rated insulation voltage U _i IEC/EN	V			1000
Rated impulse withstand voltage U _{imp}	kV			8
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I _{th}	A			100
Operational current I _e	AC-1 (≤40°C)	A	100	
	AC-1 (≤55°C)	A	80	
	AC-1 (≤70°C)	A	70	
	AC-3 (≤440V ≤55°C)	A	65	
	AC-4 (400V)	A	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	A	65	
	400V	A	65	
	415V	A	65	
	440V	A	65	
	500V	A	53	
	690V	A	47	
	1000V	A	25	
Rated operational power AC-1 (T≤40°C)	230V	kW	38	
	400V	kW	65	
	500V	kW	82	
	690V	kW	114	
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A	50	
	48V	A	50	
	75V	A	50	
	110V	A	8	
	220V	A	—	
	—	A	—	
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A	70	
	—	A	—	

	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	9
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IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	90
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IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	70
	48V	A	70
	75V	A	70
	110V	A	70
	220V	A	110
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	35
	48V	A	25
	75V	A	25
	110V	A	3
	220V	A	–
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	45
	48V	A	40
	75V	A	40
	110V	A	30
	220V	A	5
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	55
	48V	A	50
	75V	A	50
	110V	A	35
	220V	A	52
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	A	65
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Short-time allowable current for 10s (IEC/EN60947-1)		A	640
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Protection fuse			
	gG (IEC)	A	125
	aM (IEC)	A	80
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Making capacity (RMS value)		A	650
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Breaking capacity at voltage			
	440V	A	520
	500V	A	425
	690V	A	376
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Resistance per pole (average value)		mΩ	0.8
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Power dissipation per pole (average value)			
	I _{th}	W	8
	AC-3	W	3.4
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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	Ibin	0.8
		max	Ibin	0.74
Max number of wires simultaneously connectable				
			Nr.	2
Conductor section				
	AWG/Kcmil			
		max		2
Flexible w/o lug conductor section				
		min	mm ²	1.5
		max	mm ²	35
Flexible c/w lug conductor section				
		min	mm ²	1.5
		max	mm ²	35
Power terminal protection according to IEC/EN 60529				
				IP20 front
Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing				
				Screw / DIN rail 35mm
Weight				
			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life				
			cycles	15000000
Electrical life				
			cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1				
				yes
EMC compatibility				
				yes
AC coil operating				
Rated AC voltage at 60Hz				
			V	220
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	W	5
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Max cycles frequency		
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Mechanical operation	cycles/h	3600
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Operating times		
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Average time for Us control		
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in AC	Closing NO	min	ms	12
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		max	ms	28
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	Opening NO	min	ms	8
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		max	ms	22
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in DC	Closing NO	min	ms	40
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		max	ms	85
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	Opening NO	min	ms	20
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		max	ms	55
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UL technical data		
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Full-load current (FLA) for three-phase AC motor		
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at 480V	A	65
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at 600V	A	62
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Yielded mechanical performance		
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for three-phase AC motor		
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200/208V	HP	20
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220/230V	HP	25
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460/480V	HP	50
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575/600V	HP	60
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General USE		
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Contactor		
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AC current	A	100
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Short-circuit protection fuse, 600V		
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High fault		
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Short circuit current	kA	100
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Fuse rating	A	200
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Fuse class		J
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Standard fault		
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Short circuit current	kA	10
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Fuse rating	A	200
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Fuse class		RK5
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Ambient conditions		
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Temperature		
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Operating temperature		
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min	°C	-50
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max	°C	70
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Storage temperature		
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min	°C	-60
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max	°C	80
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Max altitude	m	3000
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Resistance & Protection		
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Pollution degree		3
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Dimensions		
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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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching