

Product designation				Power contactor
Product type designation				BF65
Contact characteristics				
Number of poles	Nr.			4
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 ($\leq 40^\circ\text{C}$)	A	100	
	AC-1 ($\leq 55^\circ\text{C}$)	A	80	
	AC-1 ($\leq 70^\circ\text{C}$)	A	70	
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	65	
	AC-4 (400V)	A	31	
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW	38	
	400V	kW	65	
	500V	kW	82	
	690V	kW	114	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	50	
	48V	A	50	
	75V	A	50	
	110V	A	8	
	220V	A	–	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	70	
	48V	A	70	
	75V	A	70	
	110V	A	60	
	220V	A	9	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	70	
	48V	A	70	
	75V	A	70	
	110V	A	60	
	220V	A	90	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	A	70	
	48V	A	70	
	75V	A	70	
	110V	A	70	
	220V	A	110	
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	35	
	48V	A	25	
	75V	A	25	
	110V	A	3	
	220V	A	–	
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	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
	AC3	W	3.4
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Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	I _{bin}	2.95
	max	I _{bin}	3.69
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	Prodotti finiti
	max	I _{bin}	Prodotti finiti
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Max number of wires simultaneously connectable		Nr.	2
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Conductor section	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
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Power terminal protection according to IEC/EN 60529			IP20 front
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Mechanical features			
Operating position	normal allowable		Vertical plan ±30°

Fixing				Screw / DIN rail 35mm
Weight	g			1240
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 609474-4-1				Yes
EMC compatibility				Yes
Rated AC voltage at 60Hz	V			460
AC coil operating				
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 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	
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	
	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	A	65	

		at 600V	A	62
Yielded mechanical performance for three-phase AC motor		200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60

General USE		AC current	A	100
Contactor				

Short-circuit protection fuse, 600V				
High fault		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
Standard fault		Short circuit current	kA	10
		Fuse rating	A	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
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Resistance & Protection

Pollution degree			3
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Dimensions

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
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