

Product designation				Power contactor
Product type designation				BF38
Contact characteristics				
Number of poles	Nr.			4
Rated insulation voltage U_i IEC/EN	V			690
Rated impulse withstand voltage U_{imp}	kV			6
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I_{th}	A			56
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A	56	
	AC-1 ($\leq 40^\circ\text{C}$) with 16mm ² wire and fork end lug	A	60	
	AC-1 ($\leq 55^\circ\text{C}$)	A	45	
	AC-1 ($\leq 55^\circ\text{C}$) with 16mm ² wire and fork end lug	A	48	
	AC-1 ($\leq 70^\circ\text{C}$)	A	40	
	AC-1 ($\leq 70^\circ\text{C}$) with 16mm ² wire and fork end lug	A	42	
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A	38	
	AC-4 (400V)	A	15.5	
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW	21	
	400V	kW	36	
	500V	kW	45	
	690V	kW	62	
Short-time allowable current for 10s (IEC/EN60947-1)	A			320
Protection fuse	gG (IEC)	A	63	
	aM (IEC)	A	40	
Making capacity (RMS value)	A			380
Breaking capacity at voltage	440V	A	304	
	500V	A	240	
	690V	A	192	
Resistance per pole (average value)	m Ω			2
Power dissipation per pole (average value)	I_{th}	W	6	
	AC3	W	2.9	
Tightening torque for terminals	min	Nm	2.5	
	max	Nm	3	
	min	lbin	1.8	
	max	lbin	2.2	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	lbin	Prodotti finiti	
	max	lbin	Prodotti finiti	
Max number of wires simultaneously connectable	Nr.			2
Conductor section	Flexible w/o lug conductor section			
	min	mm ²	2.5	
	max	mm ²	16	
Flexible c/w lug conductor section				

	min	mm ²	1
	max	mm ²	10
Flexible with insulated spade lug conductor section			
	min	mm ²	1
	max	mm ²	10
Power terminal protection according to IEC/EN 60529			IP20 when wired
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	660
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	1400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load mechanical load	cycles	1400000
		cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			Yes
DC coil operating			
DC rated control voltage		V	110
DC operating voltage			
pick-up		min	%Us 80
		max	%Us 125
drop-out		min	%Us 10
		max	%Us 40
Average coil consumption ≤20°C			
	in-rush	W	5.4
	holding	W	5.4
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control			
in AC			
Closing NO		min	ms 8
		max	ms 24
Opening NO		min	ms 5
		max	ms 15
Closing NC		min	ms 9
		max	ms 20
Opening NC		min	ms 9
		max	ms 17
in DC			
Closing NO		min	ms 54

Opening NO	max	ms	66
	min	ms	14
Closing NC	max	ms	17
	min	ms	23
Opening NC	max	ms	28
	min	ms	46
	max	ms	56

UL technical data

Full-load current (FLA) for three-phase AC motor

at 480V	A	40
at 600V	A	32

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	3
230V	HP	7.5

for three-phase AC motor

200/208V	HP	10
220/230V	HP	15
460/480V	HP	30
575/600V	HP	30

General USE

Contactor

AC current	A	55
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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

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
- EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching