

Product designation			Power contactor
Product type designation			BFK12
Contact characteristics			
Number of poles	Nr.	3	
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage Uimp	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	28	
Rated operational power AC-6b (T≤40°C)	230V	kvar	7
	400V	kvar	12.5
	440...480V	kvar	14
	690V	kvar	16
Short-time allowable current for 10s (IEC/EN60947-1)	A	150	
Protection fuse	gG (IEC)	A	25
		A	120
Making capacity (RMS value)			
Breaking capacity at voltage	440V	A	96
	500V	A	96
	690V	A	94
Resistance per pole (average value)	mΩ	2.5	
Power dissipation per pole (average value)	Ith	W	2
Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	Prodotti finiti
	max	Ibin	Prodotti finiti
Max number of wires simultaneously connectable	Nr.	2	
Conductor section			
Flexible w/o lug conductor section	min	mm²	1
	max	mm²	6
Flexible c/w lug conductor section	min	mm²	1
	max	mm²	4
Flexible with insulated spade lug conductor section	min	mm²	1
	max	mm²	4
Power terminal protection according to IEC/EN 60529	IP20 when wired		
Mechanical features			
Operating position	normal	Vertical plan	
	allowable	±30°	

Fixing	Screw / DIN rail 35mm		
Weight	g	416	
Auxiliary contact characteristics			
Type of contact	1 NO		
Thermal current I _{th}	A	10	
IEC/EN 60947-5-1 designation	A600 - P600		
Operating current AC15	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12	110V	A	5.7
Operating current DC13	24V	A	5.7
	48V	A	2.9
	60V	A	2.3
	110V	A	1.25
	125V	A	1.1
	220V	A	0.6
	600V	A	0.1
Operations			
Mechanical life	cycles	20000000	
Electrical life	cycles	400000	
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	400000
	mechanical load	cycles	20000000
Mirror contats according to IEC/EN 609474-4-1	YES		
EMC compatibility	Yes		
Rated AC voltage at 60Hz	V	120	
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	75
	holding	VA	9
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	70
	holding	VA	6.5
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz	W	2.5	
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	10
max	ms	20

Closing NC

min	ms	14
max	ms	28

UL technical data

General USE

Contactor

AC current	A	28
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Auxiliary contacts

AC voltage	V	600
AC current	A	10
DC voltage	V	250
DC current	A	1

Contact rating of auxiliary contacts according to UL

A600 - P600

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

EC001079 -
Capacitor
contactor