

Product designation				Power contactor
Product type designation				BFK12
<b>Contact characteristics</b>				
Number of poles	Nr.			3
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			28
Rated operational power AC-6b ( $T \leq 40^\circ C$ )	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)				120
Breaking capacity at voltage	440V	A	96	
	500V	A	96	
	690V	A	94	
Resistance per pole (average value)	m $\Omega$			2.5
Power dissipation per pole (average value)	$I_{th}$	W	2	
	min	Nm	1.5	
Tightening torque for terminals	max	Nm	1.8	
	min	$I_{bin}$	1.1	
	max	$I_{bin}$	1.5	
	min	Nm	0.8	
Tightening torque for coil terminal	max	Nm	1	
	min	$I_{bin}$	Prodotti finiti	
Max number of wires simultaneously connectable	Nr.			2
Conductor section	Flexible w/o lug conductor section			
	min	mm <sup>2</sup>	1	
	max	mm <sup>2</sup>	6	
	Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	1	
	max	mm <sup>2</sup>	4	
	Flexible with insulated spade lug conductor section			
	min	mm <sup>2</sup>	1	
	max	mm <sup>2</sup>	4	
Power terminal protection according to IEC/EN 60529				IP20 when wired
<b>Mechanical features</b>				
Operating position	normal allowable		Vertical plan $\pm 30^\circ$	

Fixing				Screw / DIN rail 35mm
Weight	g			418
<b>Auxiliary contact characteristics</b>				
Type of contact				1 NO
Thermal current I <sub>th</sub>	A			10
IEC/EN 60947-5-1 designation				A600 - P600
Operating current AC15	230V	A	3	
	400V	A	1.9	
	500V	A	1.4	
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Operating current DC12	110V	A	5.7	
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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	
<b>Operations</b>				
Mechanical life	cycles			20000000
Electrical life	cycles			400000
<b>Safety related data</b>				
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	400000	
	mechanical load	cycles	20000000	
Mirror contacts according to IEC/EN 60947-4-1				YES
EMC compatibility				Yes
Rated AC voltage at 60Hz	V			230
<b>AC coil operating</b>				
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	
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	of 50/60Hz coil powered at 60Hz			
	in-rush	VA	70	
	holding	VA	6.5	
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	of 60Hz coil powered at 60Hz			
	in-rush	VA	75	
	holding	VA	9	
Dissipation at holding ≤20°C 50Hz	W			2.5
<b>Max cycles frequency</b>				
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

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

**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