



Product designation
Product type designation

Power contactor
BFK12

Contact characteristics

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
Making capacity (RMS value)	A	120
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)	I_{th} W	2
Tightening torque for terminals	min Nm	1.5
	max Nm	1.8
	min lbin	1.1
	max lbin	1.5
Tightening torque for coil terminal	min Nm	0.8
	max Nm	1
	min lbin	0.8
	max lbin	0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section	AWG/Kcmil	
	max	10
Flexible w/o lug conductor section	min mm ²	1
	max mm ²	6
Flexible c/w lug conductor section	min mm ²	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 properly wired		
Mechanical features			
Operating position	normal allowable	Vertical plan ±30°	
Fixing	Screw / DIN rail 35mm		
Weight	g		416
Conductor section	AWG/kcmil conductor section		
	max	10	
Auxiliary contact characteristics			
Thermal current Ith	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 60947-4-1	YES		
EMC compatibility	yes		
AC coil operating			
Rated AC voltage at 60Hz	V		24
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	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz		W	2.5

Max cycles frequency

Mechanical operation	cycles/h	3600
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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

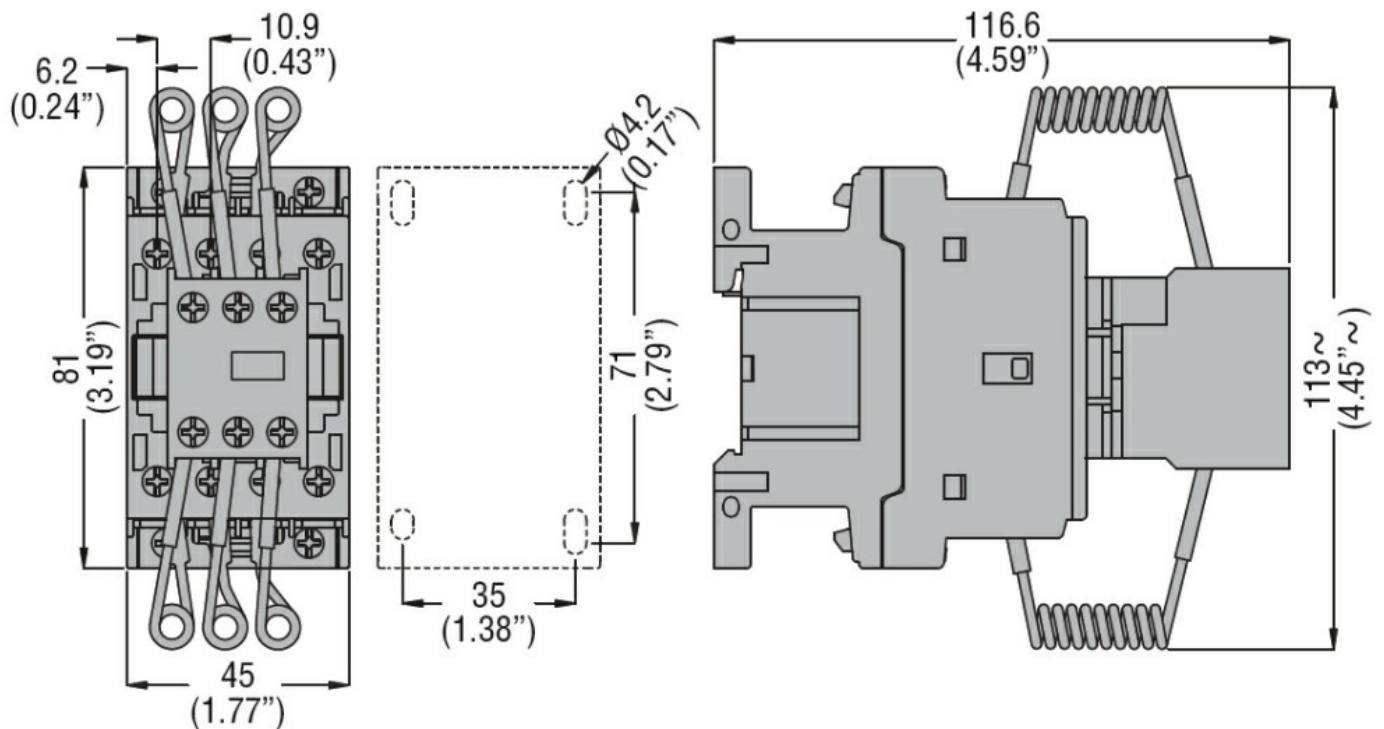
min	°C	-60
max	°C	80

Max altitude	m	3000
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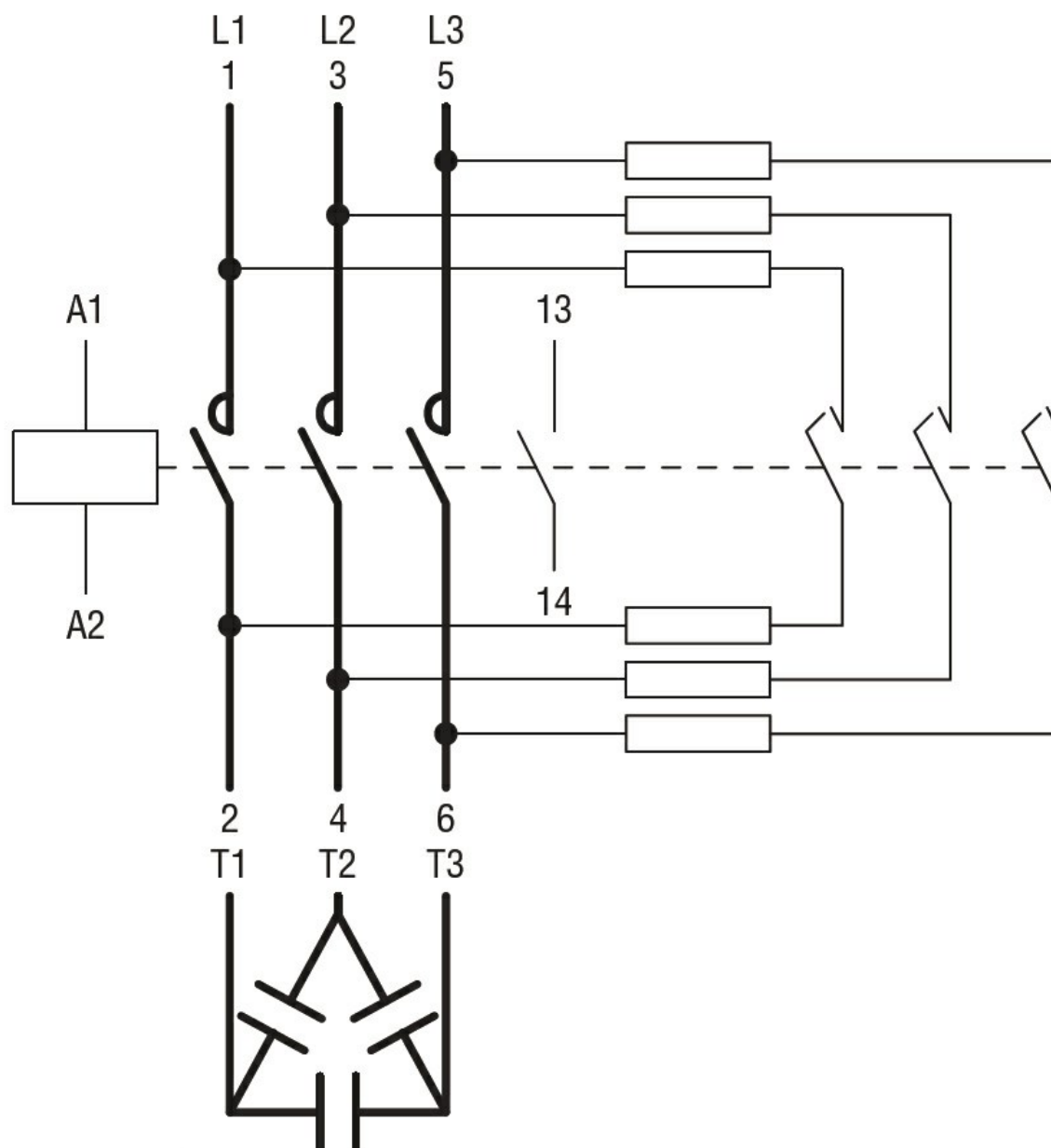
Resistance & Protection

Pollution degree	3
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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/BS 60947-1
IEC/EN/BS 60947-4-1
UL 60947-1
UL 60947-4-1

Certificates

CCC
cULus
EAC

ETIM classification

ETIM 8.0

EC001079 -
Capacitor
contactor