



Product designation				Power contactor
Product type designation				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	
		A	120	
Making capacity (RMS value)				
Breaking capacity at voltage	440V	A	96	
	500V	A	96	
	690V	A	94	
Resistance per pole (average value)			m Ω	2.5
Power dissipation per pole (average value)	lth	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	mm ²	4
Flexible with insulated spade lug conductor section	min	mm ²	1
	max	mm ²	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 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 contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 60Hz		V	48
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
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

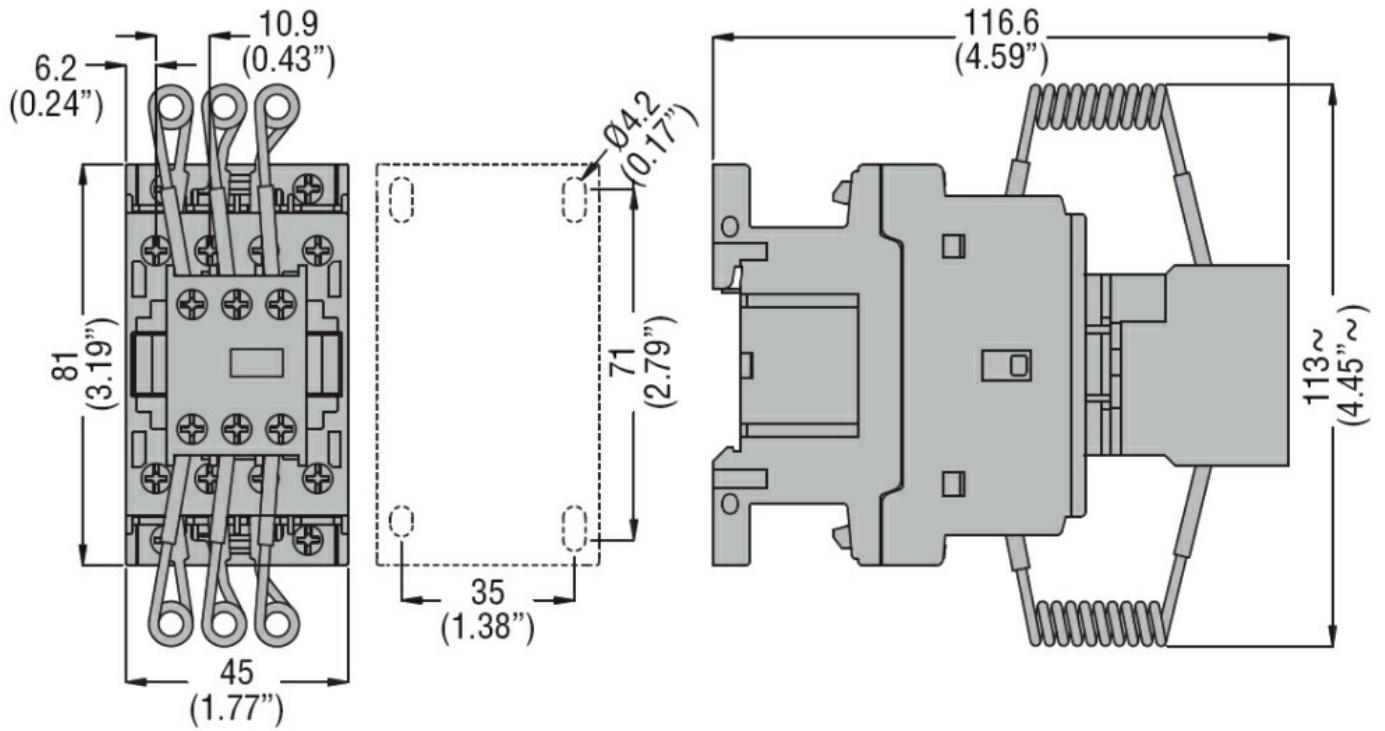
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80

Max altitude m 3000

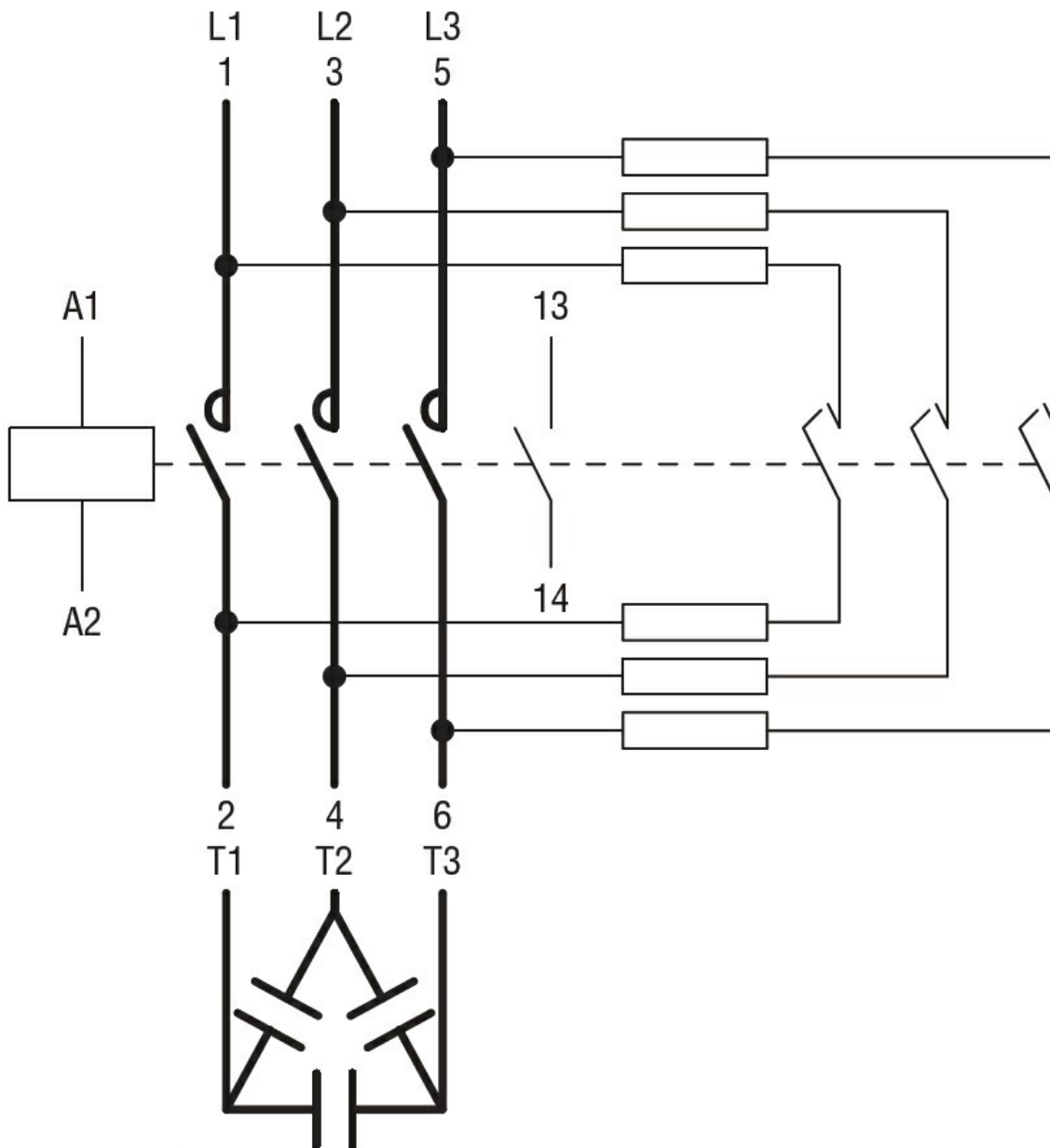
Resistance & Protection

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/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