



Product designation			Power contactor
Product type designation			BFK18
Contact characteristics			
Number of poles	nr.	3	
Rated insulation voltage Ui	V	690	
Rated impulse withstand voltage Uimp	kV	6	
Operating frequency	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith	A	32	
Operating current	Operational current AC3 (≤440V ≤55°C)	A	18
	Operational current AC4 (400V)	A	8.5
Short-time allowable current for 10s (IEC/EN60947-1)	A	200	
Protection fuse	gG (IEC)	A	32
	aM (IEC)	A	20
Making capacity (RMS value)	A	180	
Breaking capacity at voltage	Breaking capacity 440V	A	144
	Breaking capacity 500V	A	120
	Breaking capacity 690V	A	94
Resistance per pole (average value)	mΩ	2.5	
Power dissipation per pole (average value)	Power dissipation pole (average value) Ith	W	2.6
	AC3	W	0.8
Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	lbft	1.1
	max	lbft	1.5
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbft	0.59
	max	lbft	0.74
max number of wires simultaneously connectable	nr.	2	
Conductor section			
AWG	min	16	
	max	10	
Flexible w/o lug conductor section			
	min	mm²	1
	max	mm²	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
Auxiliary contact characteristics				
Type of contact				1 NA
Thermal current I _{th}				A 10
IEC/EN 60947-5-1 designation				A600
Ambient conditions				
Temperature				
Operating temperature				
		min	°C	-50
		max	°C	70
Storage temperature				
		min	°C	-60
		max	°C	80
Max altitude				m 3,000
Operating position				
			normal allowable	Vertical plan ±30°
Mounting				Screw / DIN rail 35mm
Weight				g 0.367
Operations				
Mechanical life				Cycles 20,000,000
Electrical life				Cycles 1600000
Safety related data				
Mirror contacts according to IEC/EN 60947-4-1				Yes
EMC compatibility				Yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	12
		max	V	600
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110

drop-out		min	%Us	20
		max	%Us	55
AC operating voltage				
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 operations			Cycles/h	3,600
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
Opening NC		min	ms	7
		max	ms	18
in DC				
Closing NO		min	ms	54
		max	ms	66
Opening NO		min	ms	14
		max	ms	17
Closing NC		min	ms	24
		max	ms	30
Opening NC		min	ms	47
		max	ms	57
UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	14
		at 600V	A	17
Yielded mechanical performance				
for single-phase AC motor				
		at 110/120V	hp	1
		at 230V	hp	3
for three-phase AC motor				
		at 200/208V	hp	5

at 220/230V	hp	5
at 460/480V	hp	10
at 575/600V	hp	15

Contact rating of auxiliary contacts according to UL

SI - A600

General USE

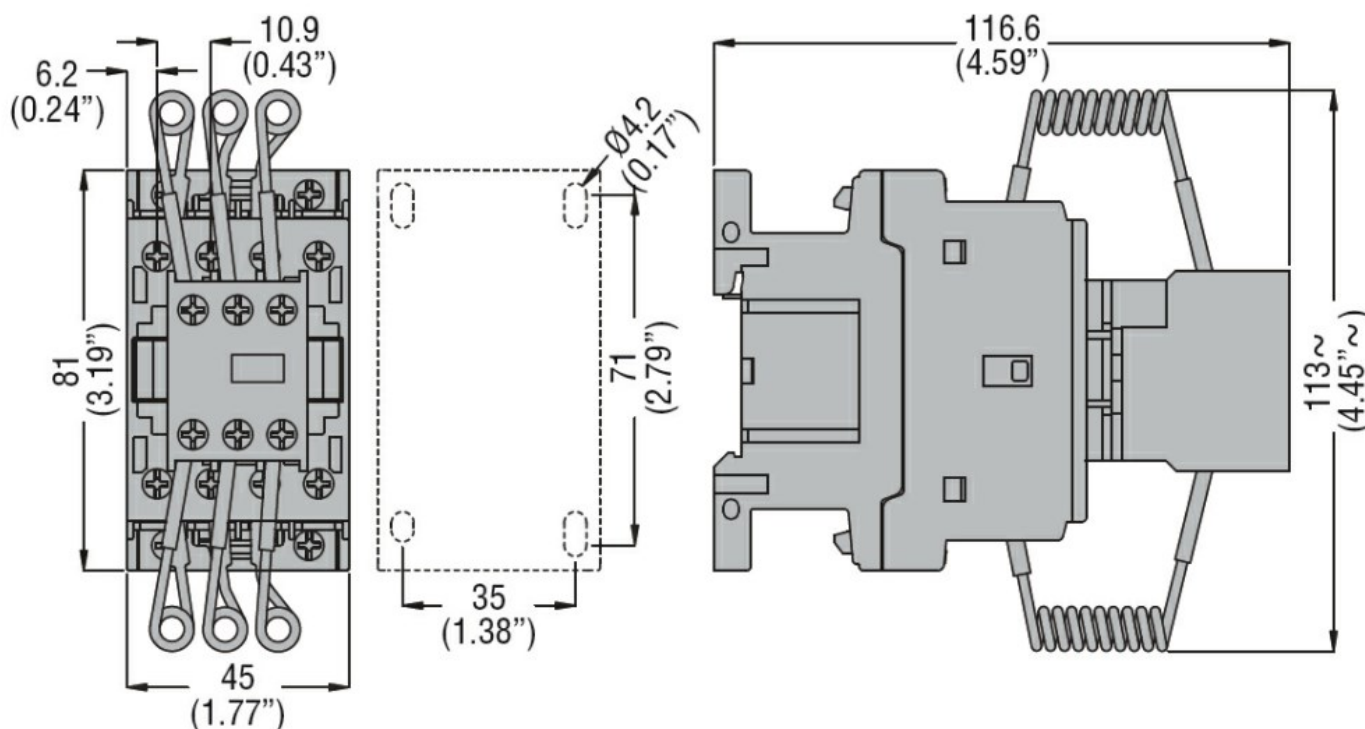
Contactor

AC current A 32

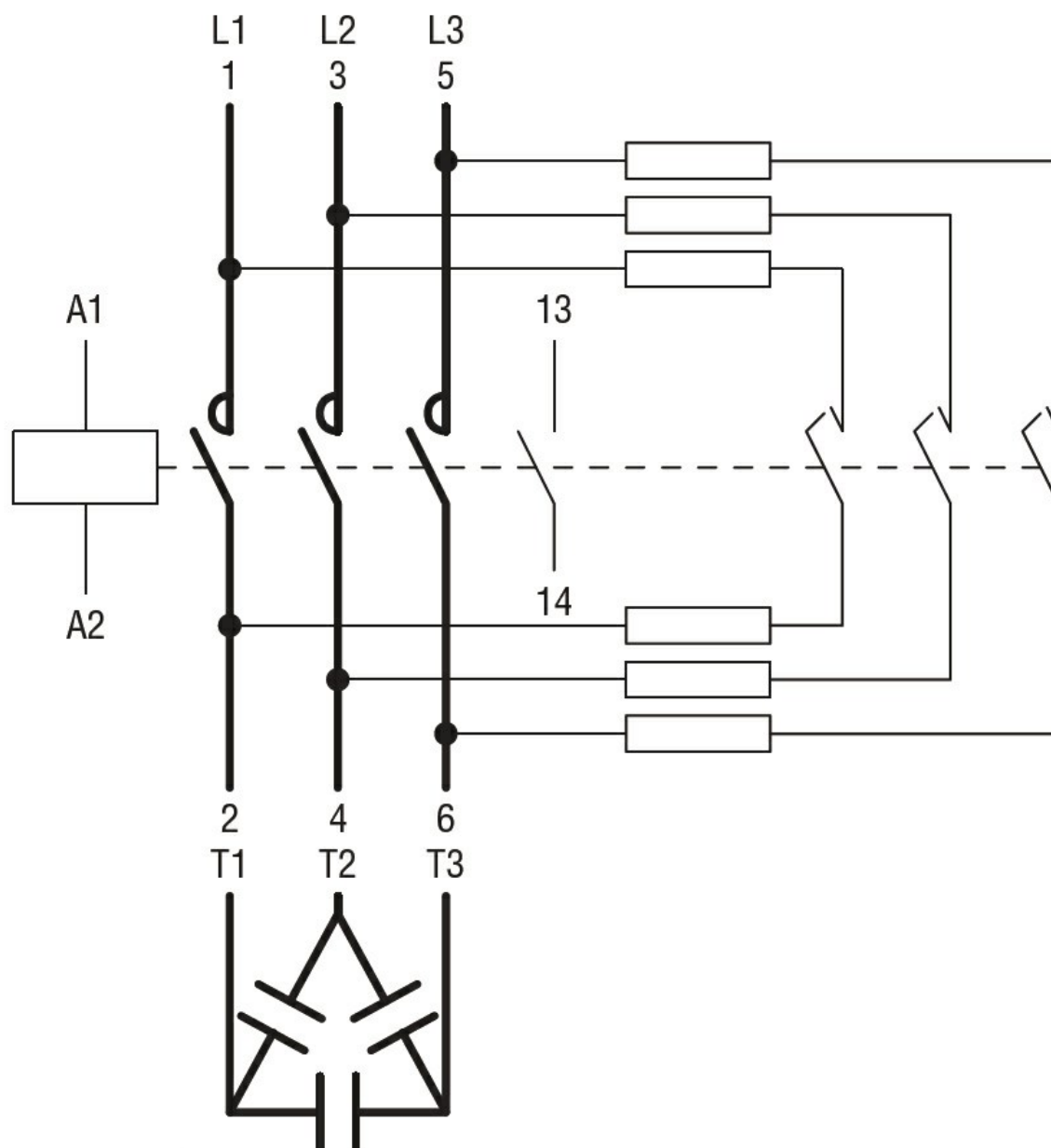
Auxiliary contacts

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

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

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

Compliance

CCC
cULus
EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching