



Power contactor
BF12

Product designation

Product type designation

Contact characteristics

Number of poles	nr.	3
Rated insulation voltage U_i	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Operating frequency		
	Operational frequency min	Hz 25
	Operational frequency max	Hz 400
Conventional free air thermal current I_{th}	A	28
Operating current		
	Operational current AC3 ($\leq 440V \leq 55^\circ C$)	A 12
	Operational current AC4 (400V)	A 7.9
Short-time allowable current for 10s (IEC/EN60947-1)	A	150
Protection fuse		
	gG (IEC)	A 32
	aM (IEC)	A 12
Making capacity (RMS value)	A	120
Breaking capacity at voltage		
	Breaking capacity 440V	A 96
	Breaking capacity 500V	A 96
	Breaking capacity 690V	A 94
Resistance per pole (average value)	m Ω	2.5
Power dissipation per pole (average value)		
	Power dissipation pole (average value) I_{th}	W 2
	AC3	W 0.4
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	mm ² 1
	max	mm ² 6
Flexible c/w lug conductor section		

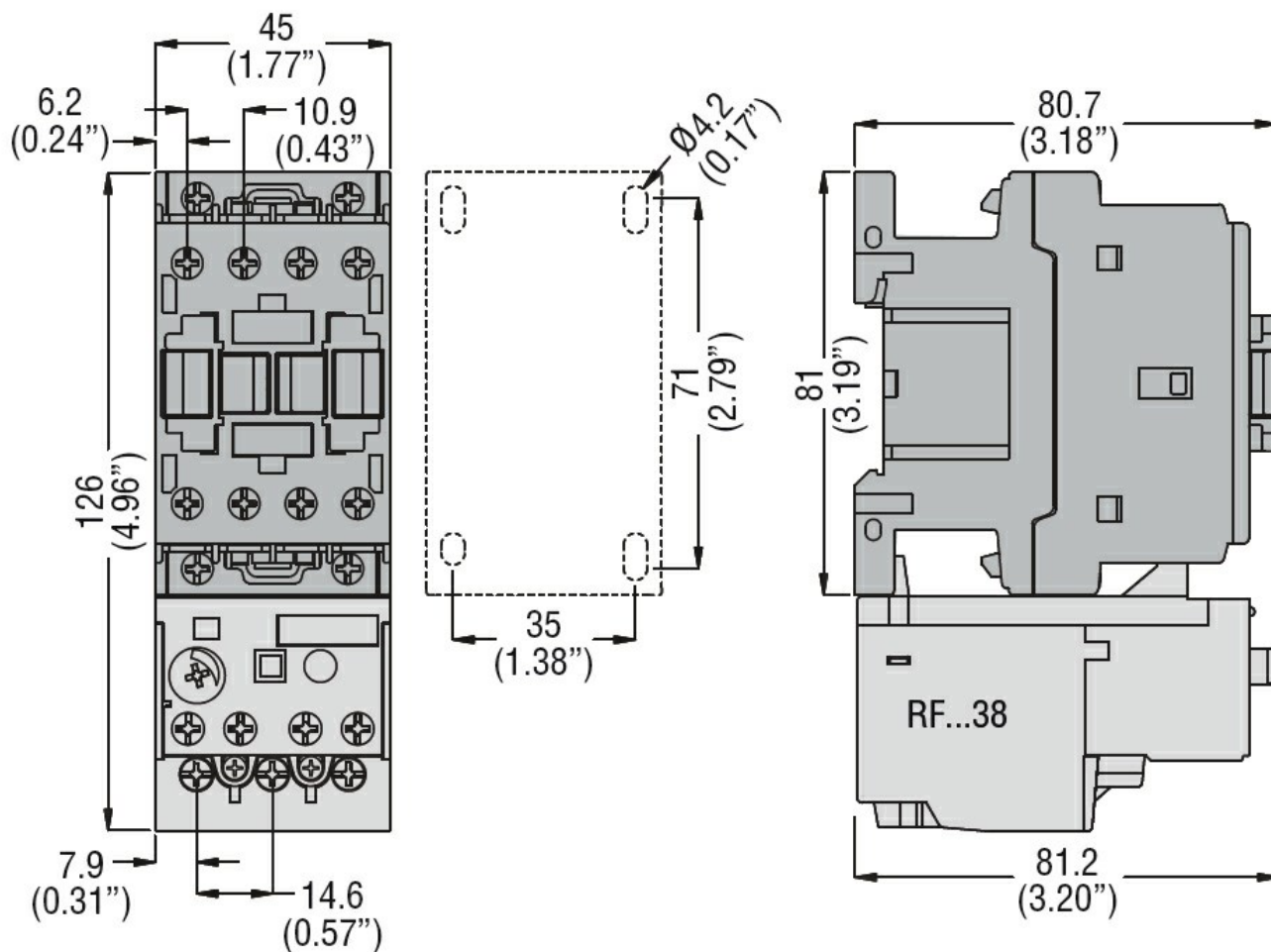
		min	mm ²	1
		max	mm ²	4
Flexible with insulated spade lug conductor section				
		min	mm ²	1
		max	mm ²	4
Power terminal protection according to IEC/EN 60529				IP20
Auxiliary contact characteristics				
Type of contact				1 NA
Thermal current I _{th}				A 28
IEC/EN 60947-5-1 designation				A600
Ambient 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 2000000
Safety related data				
Performance level B10d according to EN/ISO 13489-1 -				
		Performance level B10d according to EN/ISO 13489-1 1000000 load		2000000
		Performance level B10d according to EN/ISO 13489-2 1000000 load		2000000
Mirror contats according to IEC/EN 609474-4-1				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	20
		max	%Us	55

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT

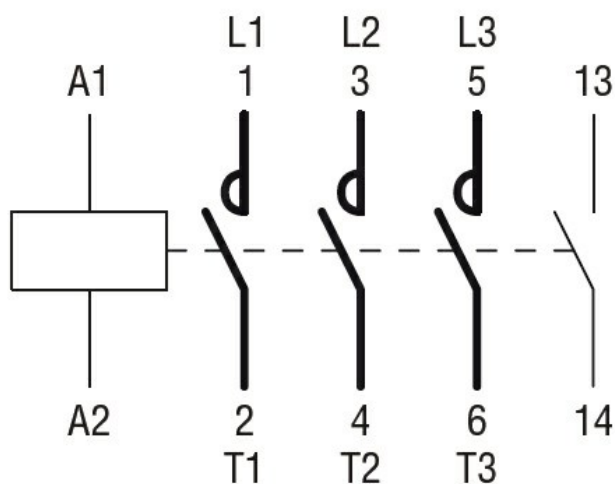
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	75
	holding	VA	9
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	70
	holding	VA	6.5
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding $\leq 20^{\circ}\text{C}$ 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
UL technical data			
Full-load current (FLA) for three-phase AC motor			
	at 480V	A	11
	at 600V	A	11
Yielded mechanical performance			
for single-phase AC motor			
	at 110/120V	hp	1
	at 230V	hp	2
for three-phase AC motor			
	at 200/208V	hp	5
	at 220/230V	hp	5
	at 460/480V	hp	7.5
	at 575/600V	hp	10
Contact rating of auxiliary contacts according to UL			SI - A600
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

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

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24VAC, 1NO AUXILIARY CONTACT

UL 60947-1

UL 60947-4-1

Compliance

CCC

cULus

EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching