



Power contactor  
BF25

Product designation

Product type designation

**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
Conventional free air thermal current $I_{th}$ IEC/EN	A	32
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 32
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 25
	AC-4 (400V)	A 10
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 12
	400V	kW 21
	500V	kW 26
	690V	kW 36
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 7
	400V	kW 12.5
	415V	kW 13.4
	440V	kW 13.4
	500V	kW 15
	690V	kW 11
Short-time allowable current for 10s (IEC/EN60947-1)	A	200
Protection fuse	gG (IEC)	A 50
	aM (IEC)	A 25
Making capacity (RMS value)	A	250
Breaking capacity at voltage	440V	A 200
	500V	A 184
	690V	A 102
Resistance per pole (average value)	m $\Omega$	2.5
Power dissipation per pole (average value)	$I_{th}$	W 2.6
	AC3	W 1.6
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	lbft	0.8
		max	lbft	0.74
Max number of wires simultaneously connectable			nr.	2
Conductor section				
	AWG			
		/kcmil min		16
		/kcmil max		10
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	
Auxiliary contact characteristics				
Type of contact			1 NO	
Thermal current I <sub>th</sub>			A	10
IEC/EN 60947-5-1 designation			A600 - P600	
Operational current I <sub>e</sub> AC-1 (≤40°C)			A	32
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	Screw / DIN rail 35mm
		125V	A	0.6
		220V	A	0.2
		600V	A	1.2
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Operational position				
	Operating position normal			vertical plan
	Operating position allowable			±30°
Fixing			Screw / DIN rail 35mm	
Weight			g	0.358

## Operations

Mechanical life	Cycles	20000000
Electrical life	Cycles	1200000

## Safety related data

Performance level B10d according to EN/ISO 13489-1

	rated load mechanical load	Cicli Cicli	1200000 20000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes

## AC coil operating

AC operating voltage

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	0.8
max	%Us	1.1

drop-out

min	%Us	0.2
max	%Us	0.55

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	0.85
max	%Us	1.1

drop-out

min	%Us	0.2
max	%Us	0.55

of 60Hz coil powered at 60Hz  
pick-up

min	%Us	0.8
max	%Us	1.1

drop-out

min	%Us	0.2
max	%Us	0.55

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
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## Max cycles frequency

Mechanical operations	Cycles/h	3600
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## Operating times

Average time for  $U_s$  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	21
at 600V	A	17

Yielded mechanical performance for

for single-phase AC motor

Yielded mechanical performance 110/120V	hp	2
Yielded mechanical performance 230V	hp	3

for three-phase AC motor

Yielded mechanical performance 200/208V	hp	7.5
Yielded mechanical performance 220/230V	hp	7.5
Yielded mechanical performance 460/480V	hp	15
Yielded mechanical performance 575/600V	hp	15

Contact rating of auxiliary contacts according to UL

A600 - P600

General USE

Contactor

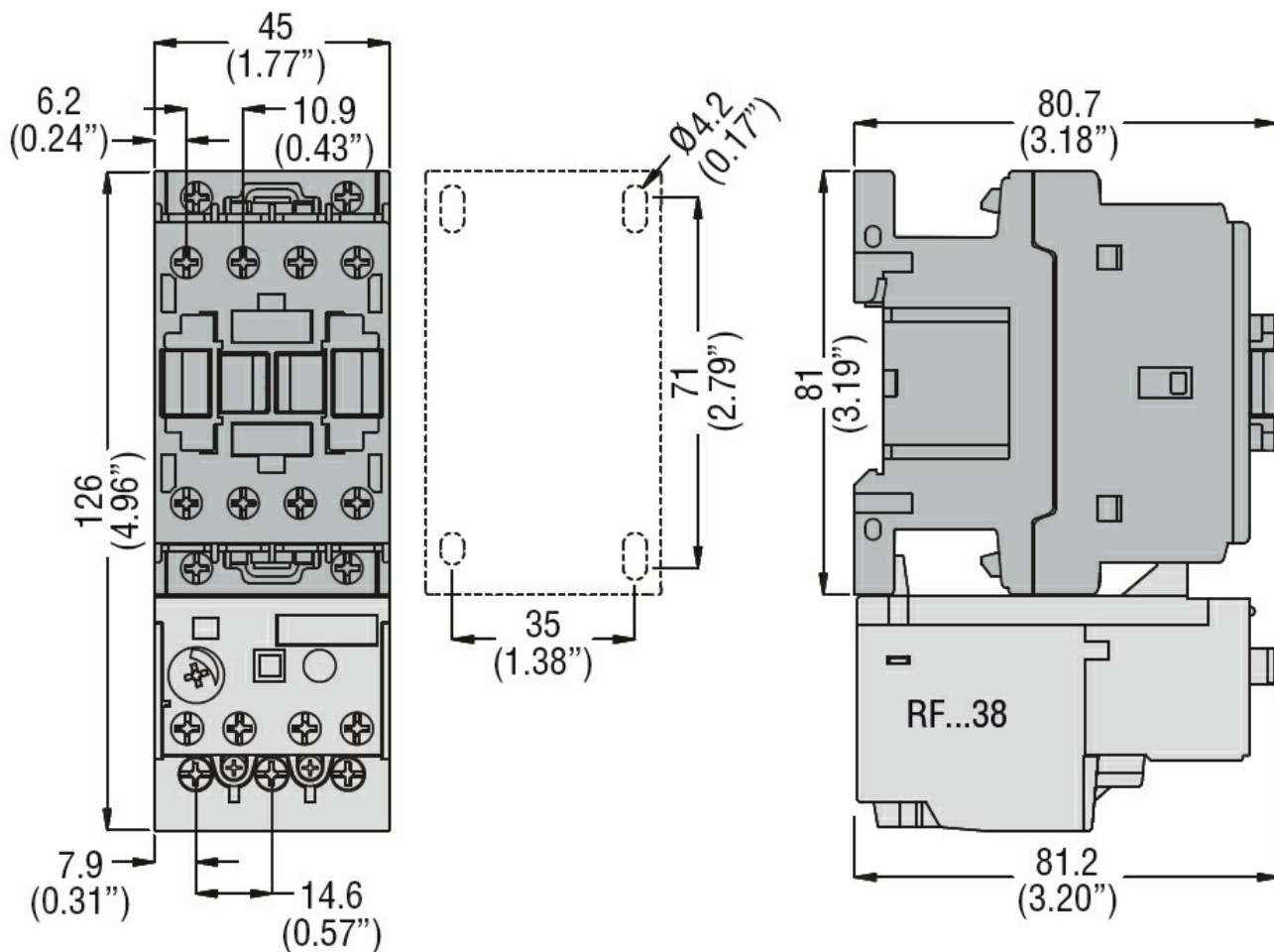
AC current	A	32
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Other features

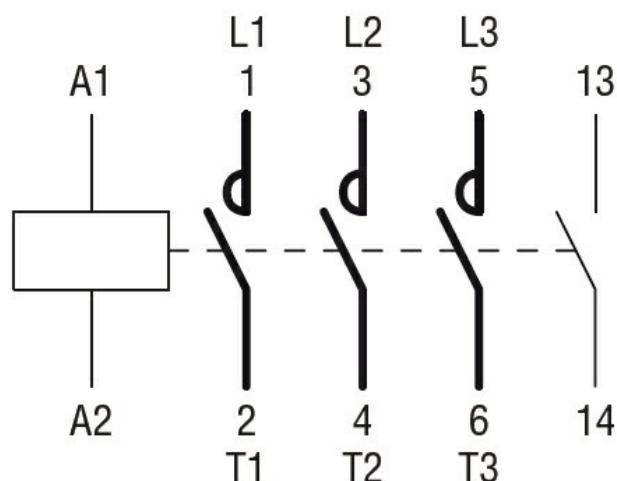
Pollution degree

3

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