



Product designation	Power contactor		
Product type designation	BF25		
<b>Contact characteristics</b>			
Number of poles	Nr.	3	
Rated insulation voltage $Ui$ IEC/EN	V	690	
Rated impulse withstand voltage $Uimp$	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $Ith$	A	32	
Operational current $le$	AC-1 ( $\leq 40^{\circ}\text{C}$ )	A	32
	AC-1 ( $\leq 55^{\circ}\text{C}$ )	A	26
	AC-1 ( $\leq 70^{\circ}\text{C}$ )	A	23
	AC-3 ( $\leq 440\text{V} \leq 55^{\circ}\text{C}$ )	A	25
	AC-4 (400V)	A	10
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
Rated operational power AC-1 ( $T \leq 40^{\circ}\text{C}$ )	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current $le$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	20
	48V	A	18
	75V	A	18
	110V	A	6
	220V	A	—
IEC max current $le$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	23
	48V	A	23
	75V	A	23
	110V	A	16
	220V	A	1
IEC max current $le$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	23
	48V	A	23
	75V	A	23
	110V	A	18

	220V	A	12
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	— — — — —
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	15 13 13 2 —
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	18 18 16 10 2
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	22 22 18 15 8
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	— — — — —
Short-time allowable current for 10s (IEC/EN60947-1)		A	200
Protection fuse	gG (IEC) aM (IEC)	A A	50 25
Making capacity (RMS value)		A	250
Breaking capacity at voltage	440V 500V 690V	A A A	200 184 102
Resistance per pole (average value)		$\text{m}\Omega$	2.5
Power dissipation per pole (average value)	I <sub>th</sub> AC-3	W W	2.6 1.6
Tightening torque for terminals	min max min max	Nm Nm I <sub>bin</sub> I <sub>bin</sub>	1.5 1.8 1.1 1.5
Tightening torque for coil terminal	min max min	Nm Nm I <sub>bin</sub>	0.8 1 0.8

	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/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 properly wired
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g		500
<b>Auxiliary contact characteristics</b>			
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	0.55
	600V	A	0.2
<b>Operations</b>			
Mechanical life	cycles		20000000
Electrical life	cycles		1200000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1200000
	mechanical load	cycles	20000000
EMC compatibility			yes
<b>DC coil operating</b>			
DC rated control voltage	V		220
DC operating voltage			
pick-up	min	%Us	70

		max	%Us	125
drop-out		min	%Us	10
		max	%Us	40
Average coil consumption $\leq 20^{\circ}\text{C}$		in-rush	W	5.4
		holding	W	5.4
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	3600
<b>Operating times</b>				
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
<b>UL technical data</b>				
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-phase AC motor				
	at 480V	A		21
	at 600V	A		17
Yielded mechanical performance				
for single-phase AC motor				
	110/120V	HP		2
	230V	HP		3
for three-phase AC motor				
	200/208V	HP		7.5
	220/230V	HP		7.5
	460/480V	HP		15
	575/600V	HP		15
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
Short-circuit protection fuse, 600V				

High fault

Short circuit current	kA	100
Fuse rating	A	60
Fuse class		J

Standard fault

Short circuit current	kA	5
Fuse rating	A	100

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

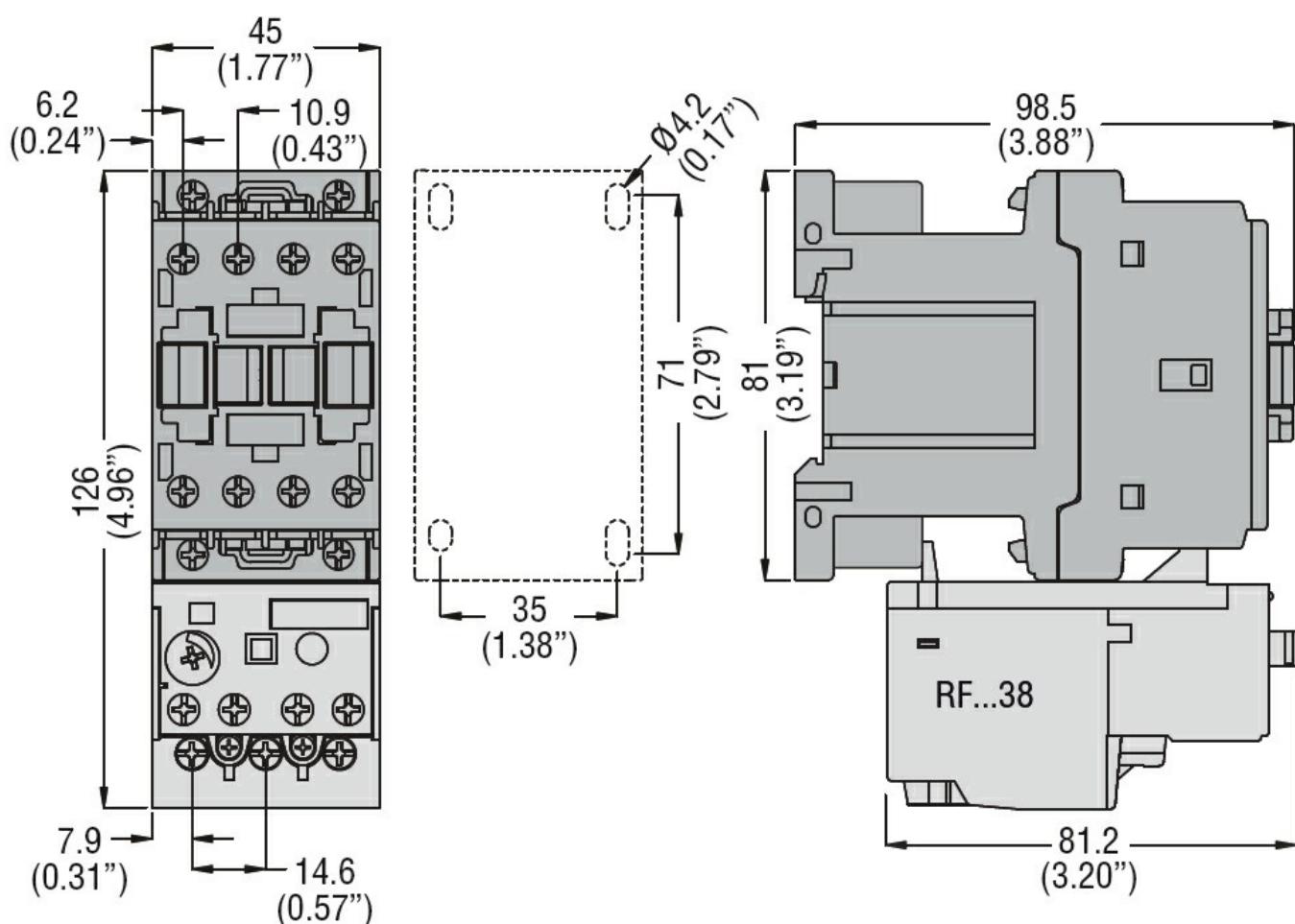
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Resistance & Protection

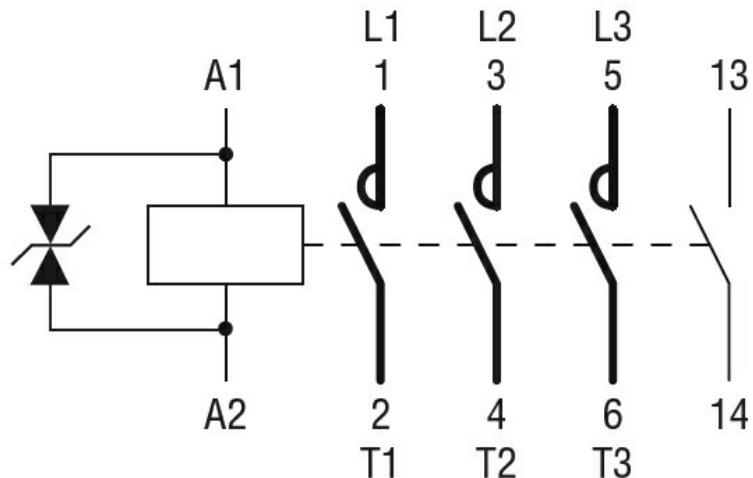
Pollution degree

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

EC000066 -  
Power contactor,  
AC switching