



Product designation	Power contactor		
Product type designation	BF25		
Contact characteristics			
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 ($=40^{\circ}\text{C}$)	A	32
	AC-1 ($=55^{\circ}\text{C}$)	A	26
	AC-1 ($=70^{\circ}\text{C}$)	A	23
	AC-3 ($=440\text{V} = 55^{\circ}\text{C}$)	A	25
	AC-4 (400V)	A	10
Rated operational power AC-3 ($T=55^{\circ}\text{C}$)	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 ($T=40^{\circ}\text{C}$)	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with $L/R = 1\text{ms}$ with 1 poles in series	=24V	A	20
	48V	A	18
	75V	A	18
	110V	A	6
	220V	A	—
IEC max current le in DC1 with $L/R = 1\text{ms}$ with 2 poles in series	=24V	A	23
	48V	A	23
	75V	A	23
	110V	A	16
	220V	A	1
IEC max current le in DC1 with $L/R = 1\text{ms}$ with 3 poles in series	=24V	A	23
	48V	A	23
	75V	A	23
	110V	A	18

	220V	A	12
IEC max current Ie in DC1 with L/R = 1ms with 4 poles in series	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
IEC max current Ie in DC3-DC5 with L/R = 15ms with 1 poles in series	=24V	A	15
	48V	A	13
	75V	A	13
	110V	A	2
	220V	A	—
IEC max current Ie in DC3-DC5 with L/R = 15ms with 2 poles in series	=24V	A	18
	48V	A	18
	75V	A	16
	110V	A	10
	220V	A	2
IEC max current Ie in DC3-DC5 with L/R = 15ms with 3 poles in series	=24V	A	22
	48V	A	22
	75V	A	18
	110V	A	15
	220V	A	8
IEC max current Ie in DC3-DC5 with L/R = 15ms with 4 poles in series	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
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?	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	I _{bin}	1.1
	max	I _{bin}	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.8

	max	lbin	0.74			
Max number of wires simultaneously connectable	Nr. 2					
Conductor section						
AWG/Kcmil						
Flexible w/o lug conductor section	max	10				
	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 wired					
Mechanical features						
Operating position	normal allowable	Vertical plan ±30°				
Fixing	Screw / DIN rail 35mm					
Weight	g	502				
Conductor section						
AWG/kcmil conductor section	max	10				
Auxiliary contact characteristics						
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			
Operations						
Mechanical life	cycles	20000000				
Electrical life	cycles	1200000				
Safety related data						
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	1200000			
	mechanical load	cycles	20000000			
Mirror contacts according to IEC/EN 609474-4-1	yes					
EMC compatibility	yes					
DC coil operating						
DC rated control voltage	V	24				

DC operating voltage

pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	10
	max	%Us	40

Average coil consumption =20°C

in-rush	W	2.4
holding	W	2.4

Max cycles frequency

Mechanical operation cycles/h 3600

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	75
	max	ms	91
Opening NO	min	ms	15
	max	ms	19

UL technical data

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

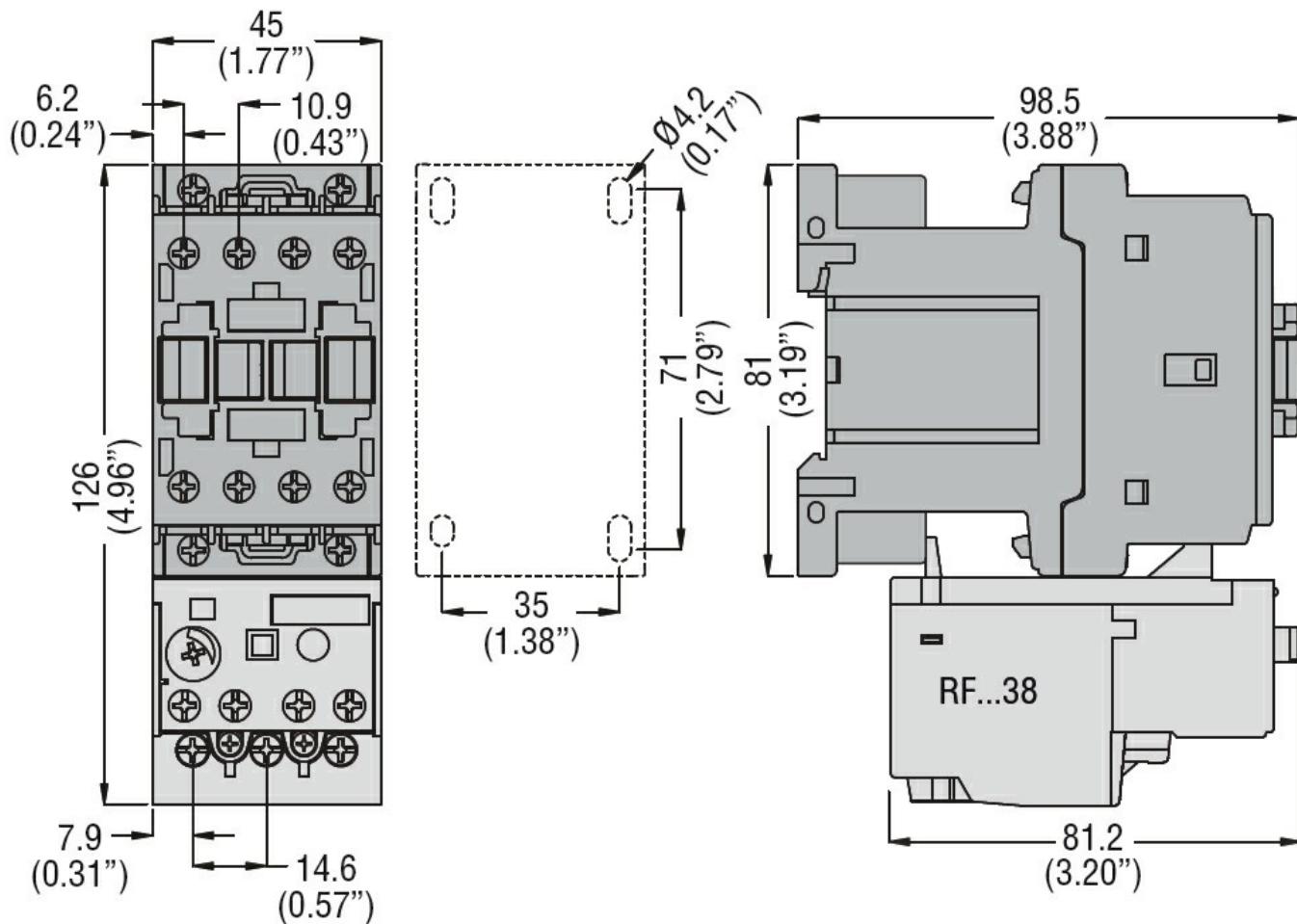
Contactor

AC current	A	32
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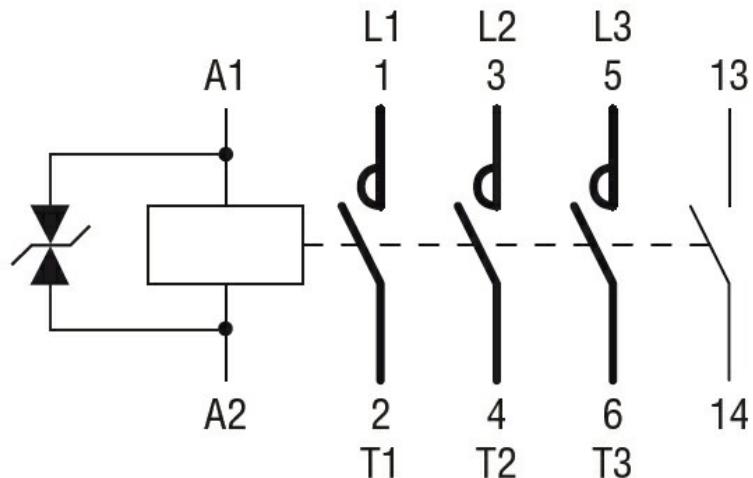
Auxiliary contacts

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 Fuse rating Fuse class	kA A J	100 60 J
Standard fault	Short circuit current Fuse rating	kA A	5 100
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature	Operating temperature	min °C max °C	-50 70
	Storage temperature	min °C max °C	-60 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 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching