



Product designation	Power contactor		
Product type designation	BF25		
<b>Contact characteristics</b>			
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
IEC Conventional free air thermal current $I_{th}$	A	32	
Operational current $I_e$			
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 $I_e$ 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 $I_e$ 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 $I_e$ 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 48V 75V 110V 220V	A A A A A	— — — — —
IEC max current Ie in DC3-DC5 with L/R = 15ms with 1 poles in series	=24V 48V 75V 110V 220V	A A A A A	15 13 13 2 —
IEC max current Ie in DC3-DC5 with L/R = 15ms with 2 poles in series	=24V 48V 75V 110V 220V	A A A A A	18 18 16 10 2
IEC max current Ie in DC3-DC5 with L/R = 15ms with 3 poles in series	=24V 48V 75V 110V 220V	A A A A A	22 22 18 15 8
IEC max current Ie in DC3-DC5 with L/R = 15ms with 4 poles in series	=24V 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)		m?	2.5
Power dissipation per pole (average value)	I <sub>th</sub> AC3	W W	2.6 1.6
Tightening torque for terminals	min max min max	Nm Nm lbin lbin	1.5 1.8 1.1 1.5
Tightening torque for coil terminal	min max min	Nm Nm lbin	0.8 1 0.8

Max number of wires simultaneously connectable	max	lbin	0.74
Conductor section	Nr.	2	
AWG/Kcmil	max		
Flexible w/o lug conductor section	max		10
	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
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g	356	
Conductor section			
AWG/kcmil conductor section	max		10
<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
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 60Hz	V	120	

AC operating voltage

of 60Hz coil powered at 60Hz	pick-up	min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	55

AC average coil consumption at 20°C

of 60Hz coil powered at 60Hz	in-rush	VA	75
	holding	VA	9

Dissipation at holding =20°C 50Hz

W	2.5
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Max cycles frequency

Mechanical operation	cycles/h	3600
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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	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

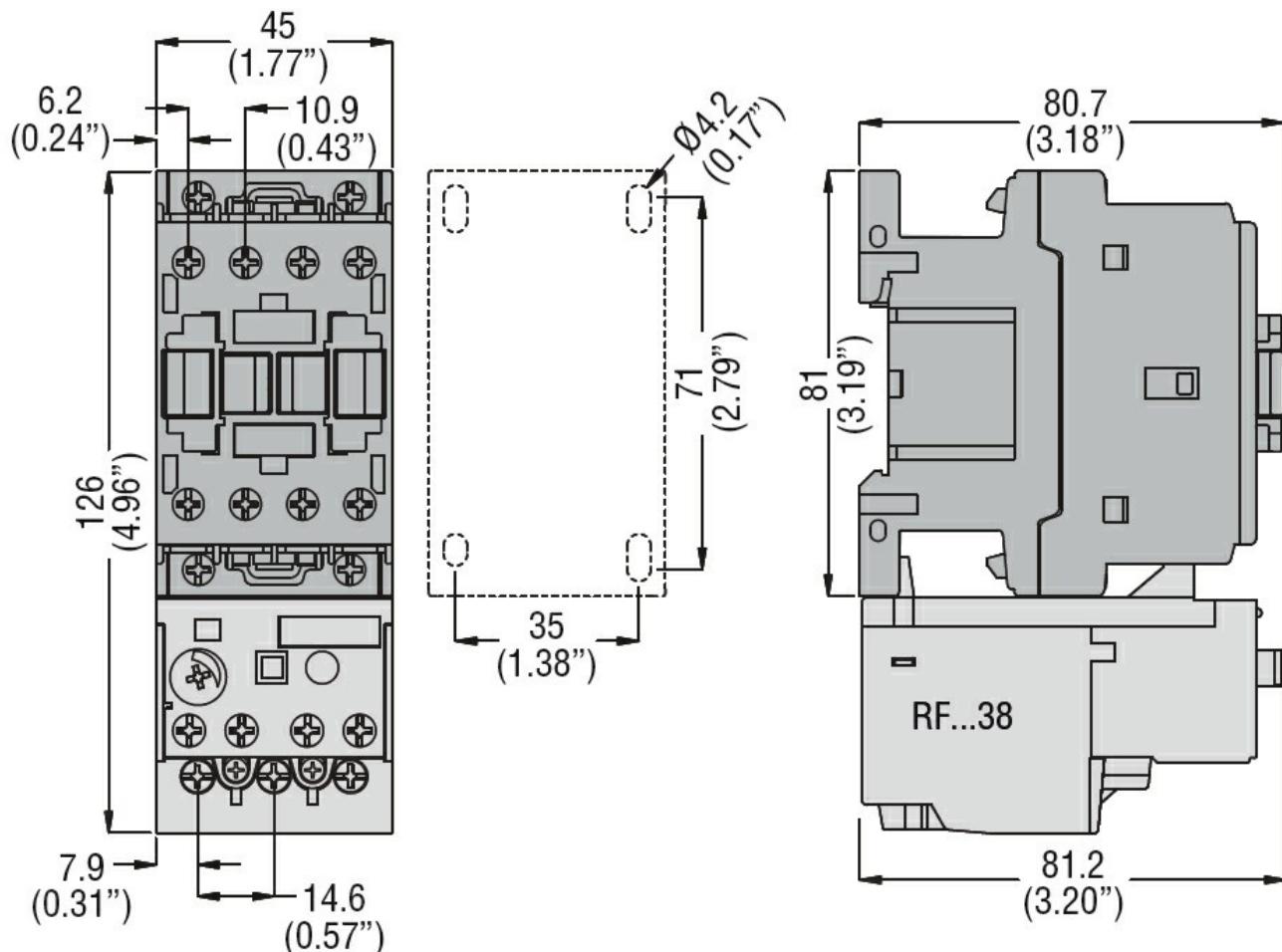
General USE

Contactor	AC current	A	32
Auxiliary contacts	AC voltage	V	600
	AC current	A	10
	DC voltage	V	250
	DC current	A	1

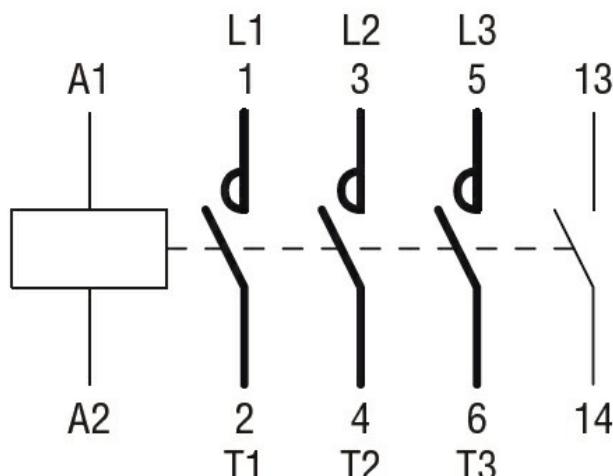
Short-circuit protection fuse, 600V

High fault	Short circuit current	kA	100
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	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		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