



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 ( $\leq 40^\circ C$ )	A	32
	AC-1 ( $\leq 55^\circ C$ )	A	26
	AC-1 ( $\leq 70^\circ C$ )	A	23
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A	25
	AC-4 (400V)	A	10
Rated operational power AC-3 ( $T \leq 55^\circ C$ )			
	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 ( $T \leq 40^\circ C$ )			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series			
	$\leq 24V$	A	20
	48V	A	18
	75V	A	18
	110V	A	6
	220V	A	—
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series			
	$\leq 24V$	A	23
	48V	A	23
	75V	A	23
	110V	A	16
	220V	A	1
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series			
	$\leq 24V$	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	$\leq 24V$ 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	$\leq 24V$ 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	$\leq 24V$ 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	$\leq 24V$ 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	$\leq 24V$ 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		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
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g	492	
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 mechanical load	cycles cycles	1200000 20000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
DC coil operating	V	110	
DC rated control voltage	V	110	

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

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	54
	max	ms	66
Opening NO	min	ms	14
	max	ms	17
Closing NC	min	ms	24
	max	ms	30
Opening NC	min	ms	47
	max	ms	57

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

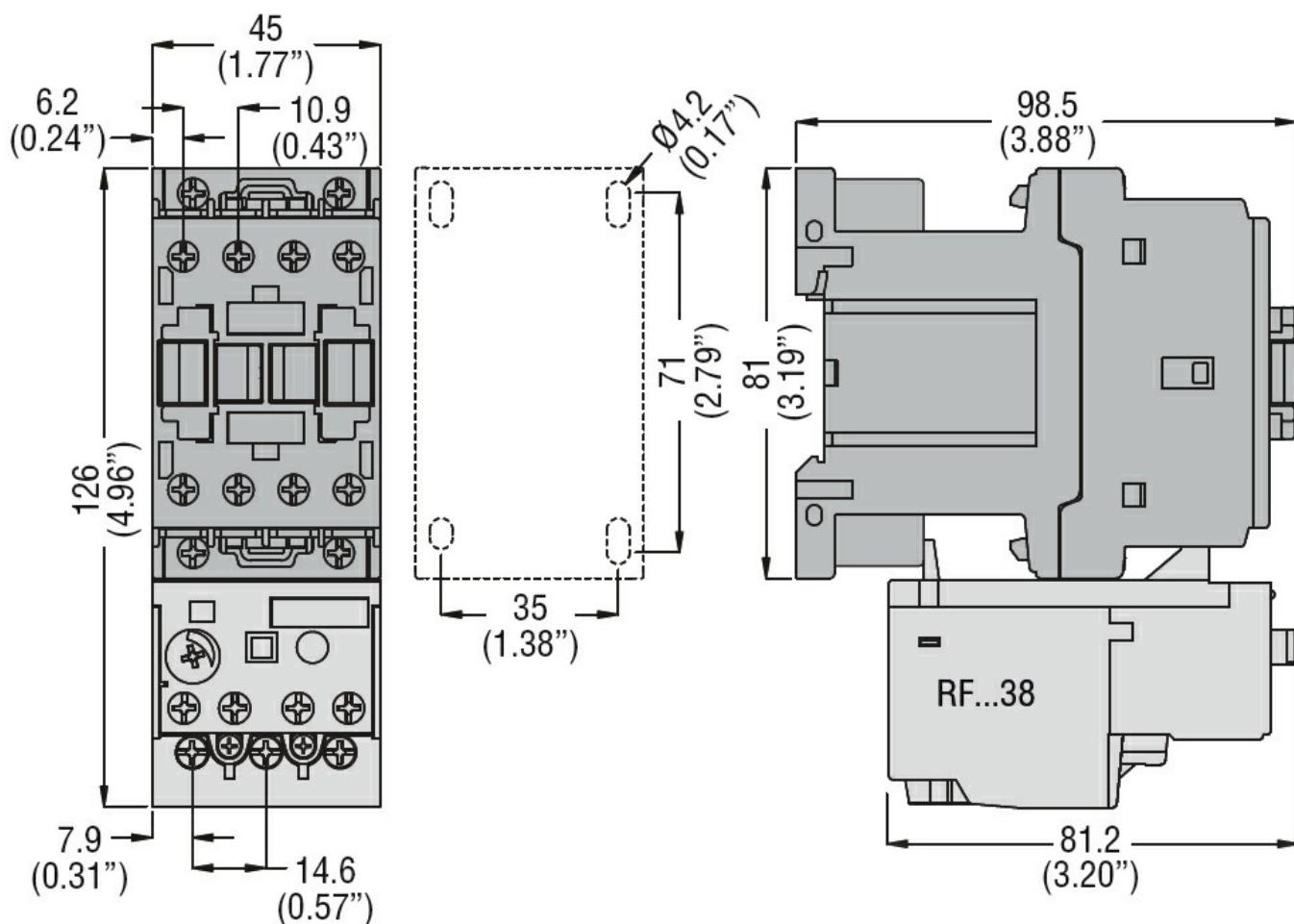
110/120V	HP	2
230V	HP	3

for three-phase AC motor

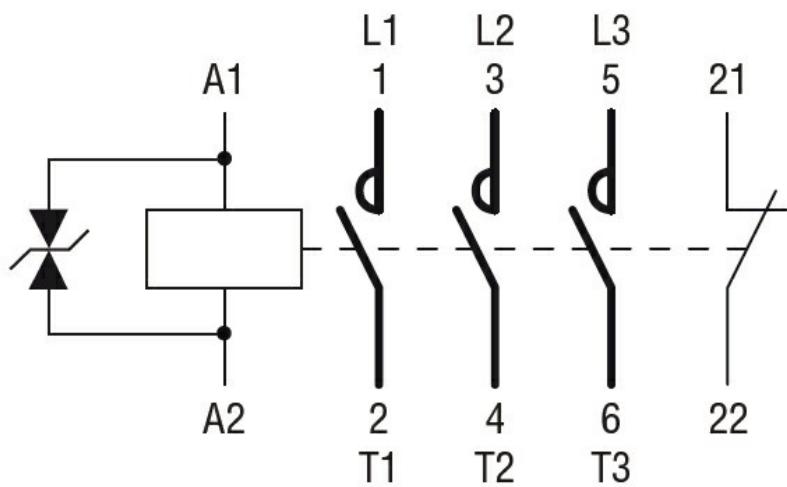
200/208V	HP	7.5
220/230V	HP	7.5
460/480V	HP	15
575/600V	HP	15

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
	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