



Product designation

Power contactor

Product type designation

BF25

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
IEC Conventional free air thermal current I _{th}	A	32
Operational current I _e	AC-1 (≤40°C)	A 32
	AC-1 (≤55°C)	A 26
	AC-1 (≤70°C)	A 23
	AC-3 (≤440V ≤55°C)	A 25
	AC-4 (400V)	A 10
Rated operational power AC-3 (T≤55°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°C)	230V	kW 12
	400V	kW 21
	500V	kW 26
	690V	kW 36
IEC max current I _e in DC1 with L/R ≤ 1ms 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 ≤ 1ms 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 ≤ 1ms with 3 poles in series	≤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 ≤ 1ms with 4 poles in series			
	≤24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
IEC max current I _e 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 I _e 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 I _e 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 I _e 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)		mΩ	2.5
Power dissipation per pole (average value)			
	I _{th}	W	2.6
	AC-3	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	I _{bin}	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		10
Flexible w/o lug conductor section	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 properly wired
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	360
Auxiliary contact characteristics			
Thermal current I _{th}		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
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	110
AC operating voltage			of 50/60Hz coil powered at 50Hz pick-up

			min	%Us	80	
			max	%Us	110	
	drop-out	min	%Us	20		
		max	%Us	55		
	of 50/60Hz coil powered at 60Hz					
	pick-up	min	%Us	85		
		max	%Us	110		
	drop-out	min	%Us	20		
		max	%Us	55		
	AC average coil consumption at 20°C					
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 ≤20°C 50Hz				W	2.5	
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		
	UL technical data					
	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

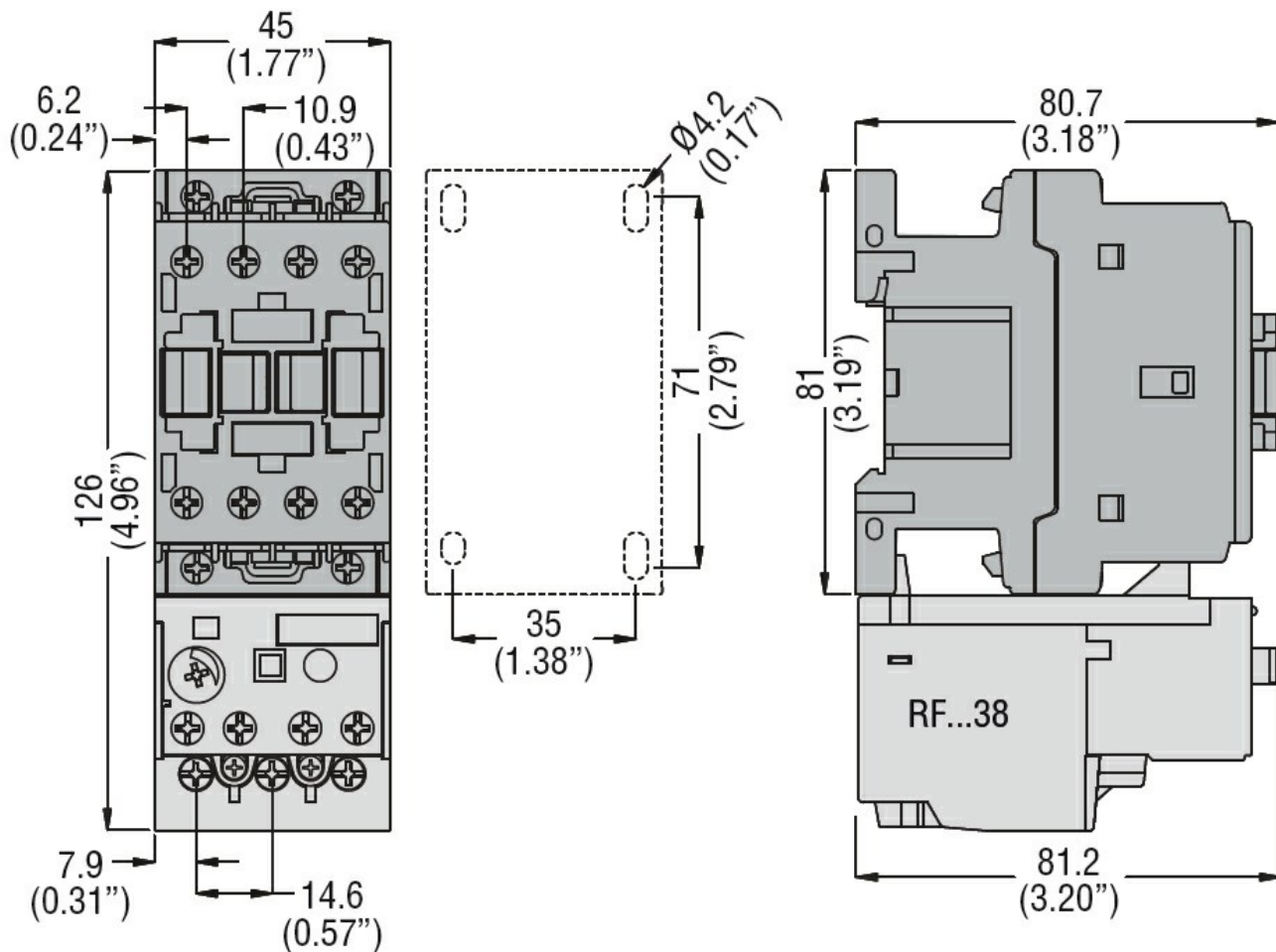
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Resistance & Protection

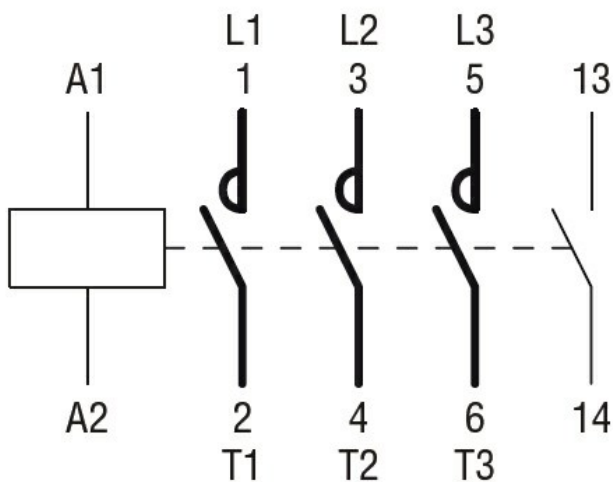
Pollution degree

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