



Product designation

Power contactor

Product type designation

BF25

Contact characteristics

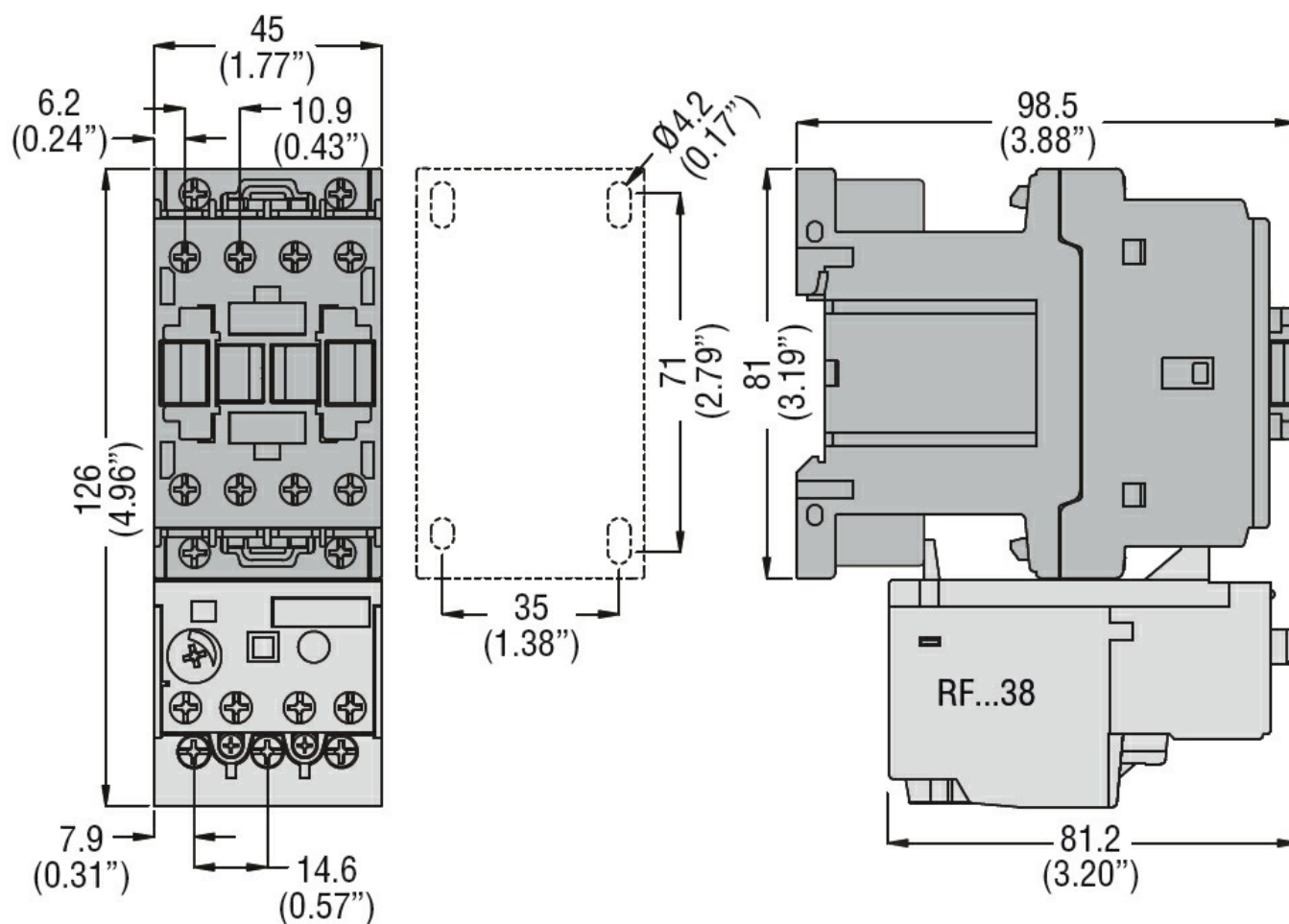
Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	32
Operational current I_e	AC-1 (=40°C)	A 32
	AC-1 (=55°C)	A 26
	AC-1 (=70°C)	A 23
	AC-3 (=440V =55°C)	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 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)			
	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8

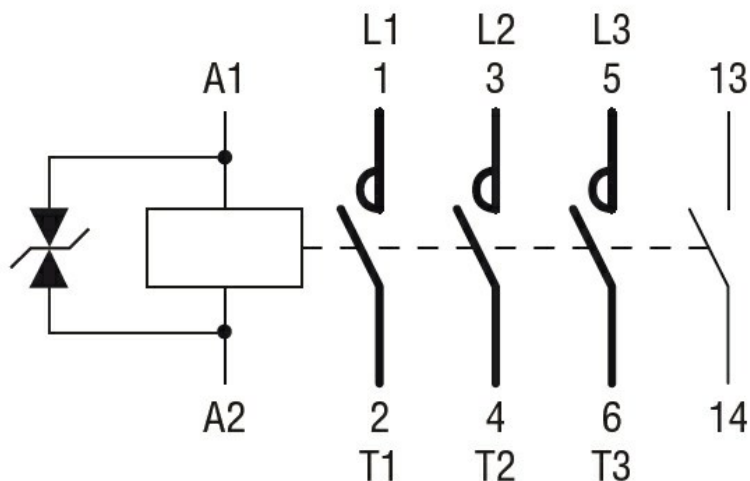
	max	I _{bin}	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		10
Flexible w/o lug conductor section	min	mm ²	1
	max	mm ²	6
Flexible c/w lug conductor section	min	mm ²	1
	max	mm ²	4
Flexible with insulated spade lug conductor section	min	mm ²	1
	max	mm ²	4
Power terminal protection according to IEC/EN 60529			IP20 when wired
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	500
Conductor section			
AWG/kcmil conductor section	max		10
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
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
DC coil operating			
DC rated control voltage		V	24

DC operating voltage				
pick-up	min	%Us	70	
	max	%Us	125	
drop-out	min	%Us	10	
	max	%Us	40	
Average coil consumption =20°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
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