

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 ($\leq 40^{\circ}\text{C}$)	A	32
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	26
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	23
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	25
	AC-4 (400V)	A	10
Rated operational power AC-3 ($T \leq 55^{\circ}\text{C}$)	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 ($T \leq 40^{\circ}\text{C}$)	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	20
	48V	A	18
	75V	A	18
	110V	A	6
	220V	A	–
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	23
	48V	A	23
	75V	A	23
	110V	A	16
	220V	A	1
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	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	$\leq 24\text{V}$	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ 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	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	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

Mirror contacts according to IEC/EN 60947-4-1 annex F

Yes

EMC compatibility

yes

AC coil operating

Rated AC voltage at 60Hz

V 230

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 $\leq 20^{\circ}\text{C}$ 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
	220/240V	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	$^{\circ}\text{C}$	-50

Storage temperature	max	°C	70
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
ETIM classification			
ETIM 8.0			EC000066 - Power contactor, AC switching