

Product designation	Power contactor		
Product type designation	BF25		
Contact characteristics			
Number of poles	Nr.	3	
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage Uimp	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	32	
Operational current Ie			
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 Ie 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 Ie 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 Ie 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 Ie 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 Ie 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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)		$\text{m}\Omega$	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		Vertical plan	
	allowable		±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		cycles/h	3600
Mechanical operation			
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	°C	-50

	max	°C	70
Storage temperature			
	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