



Product designation	Power contactor		
Product type designation	BF500		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage $U_i$ IEC/EN	V	1000	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$		A	700
Operational current $I_e$			
	AC-1 ( $\leq 40^\circ C$ )	A	600
	AC-1 ( $\leq 55^\circ C$ )	A	590
	AC-1 ( $\leq 70^\circ C$ )	A	510
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A	500
	AC-4 (400V)	A	230
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	230V	kW	160
	400V	kW	250
	415V	kW	250
	440V	kW	250
	500V	kW	355
	690V	kW	400
	1000V	kW	200
Rated operational current AC-3 ( $T \leq 55^\circ C$ )	230V	A	500
	400V	A	500
	415V	A	500
	440V	A	500
	500V	A	488
	690V	A	400
	1000V	A	200
Rated operational power AC-1 ( $T \leq 40^\circ C$ )	230V	kW	265
	400V	kW	461
	500V	kW	507
	690V	kW	795
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	75V	A	650
	110V	A	320
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series	75V	A	650
	110V	A	550
	220V	A	450
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series			

	75V	A	650
	110V	A	600
	220V	A	600
	330V	A	450
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	75V	A	650
	110V	A	600
	220V	A	600
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	75V	A	550
	110V	A	320
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	75V	A	550
	110V	A	550
	220V	A	450
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	450
Short-time allowable current for 10s (IEC/EN60947-1)			
Protection fuse		A	4050
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	5000
Breaking capacity at voltage			
	440V	A	5000
	500V	A	3904
	690V	A	3200
Resistance per pole (average value)		$\text{m}\Omega$	0.09
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	49
	AC-3	W	25
Tightening torque for terminals			
	min	Nm	55
	max	Nm	55
	min	Ibin	486
	max	Ibin	486
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	7.1
	max	Ibin	8.8
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position	normal		Vertical plan

	allowable	±30°
Fixing		Screw
Operations		
Mechanical life	cycles	5000000
Electrical life	cycles	600000
Safety related data		
Performance level B10d according to EN/ISO 13489-1		
	rated load	cycles 600000
	mechanical load	cycles 5000000
EMC compatibility		yes
AC coil operating		
Rated AC voltage at 50/60Hz, 60Hz	min V	100
	max V	250
AC operating voltage		
of 50/60Hz coil powered at 50Hz		
pick-up	min %Us	80 Us min
drop-out	max %Us	110 Us max
of 50/60Hz coil powered at 60Hz	max %Us	≤70 Us min
pick-up	min %Us	80 Us min
drop-out	max %Us	110 Us max
	max %Us	≤70 Us min
AC average coil consumption at 20°C		
of 50/60Hz coil powered at 50Hz		
in-rush VA	390	
holding VA	12	
of 50/60Hz coil powered at 60Hz		
in-rush VA	390	
holding VA	12	
Dissipation at holding ≤20°C 50Hz	W	4
DC coil operating		
DC rated control voltage	min V	100
	max V	250
DC operating voltage		
pick-up	min %Us	85 Us min
drop-out	max %Us	110 Us max
	max %Us	≤70 Us min
Average coil consumption ≤20°C		
	in-rush W	390
	holding W	4
Max cycles frequency		
Mechanical operation	cycles/h	1000
Operating times		
Average time for Us control		
in AC		

Closing NO	min	ms	95
	max	ms	135
Opening NO	min	ms	40
	max	ms	53

**UL technical data**

Rated operational voltage AC (UL)	V	600
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Yielded mechanical performance

for three-phase AC motor

200/208V	HP	150
220/240V	HP	200
460/480V	HP	400
575/600V	HP	500

**General USE**

Contactor

AC current	A	700
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Short-circuit protection fuse, 600V

High fault

Short circuit current	kA	100
Fuse rating	A	800
Fuse class	L	

Standard fault

Short circuit current	kA	30
Fuse rating	A	1000
Fuse class	L	

**Ambient conditions**

Temperature

Operating temperature

min	°C	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

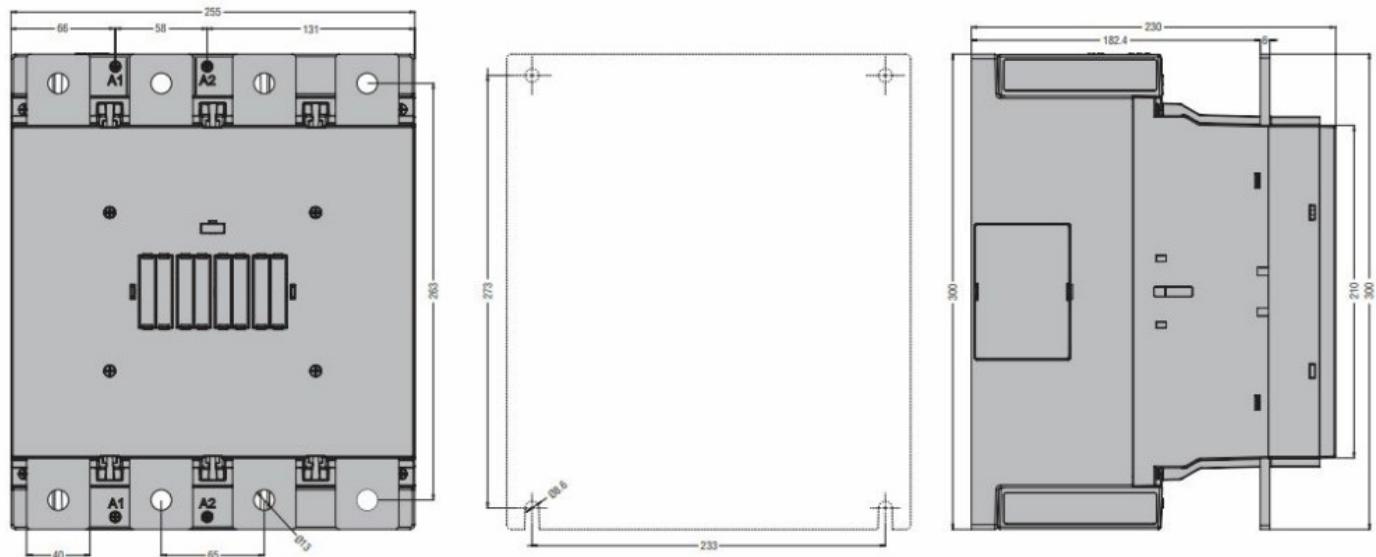
m	3000
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Resistance & Protection

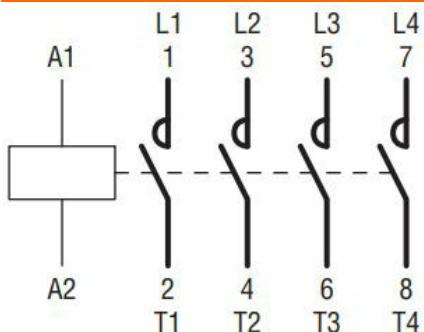
Pollution degree

3
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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

[cULus](#)

### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching