



Product designation	Power contactor		
Product type designation	BF500		
Contact characteristics			
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 ($\leq 40^\circ\text{C}$)	A	600
	AC-1 ($\leq 55^\circ\text{C}$)	A	590
	AC-1 ($\leq 70^\circ\text{C}$)	A	510
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	500
	AC-4 (400V)	A	230
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)			
	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 ($T \leq 55^\circ\text{C}$)			
	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 ($T \leq 40^\circ\text{C}$)			
	230V	kW	265
	400V	kW	461
	500V	kW	507
	690V	kW	795
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series			
	75V	A	650
	110V	A	320
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series			
	75V	A	650
	110V	A	550
	220V	A	450
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ 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 _{th}	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	60
	max V	130
AC operating voltage		
of 50/60Hz coil powered at 50Hz		
pick-up		
min %Us	80 Us min	
max %Us	110 Us max	
drop-out		
max %Us	≤70 Us min	
of 50/60Hz coil powered at 60Hz		
pick-up		
min %Us	80 Us min	
max %Us	110 Us max	
drop-out		
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	60
	max V	130
DC operating voltage		
pick-up		
min %Us	85 Us min	
max %Us	110 Us max	
drop-out		
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
-----------------------------------	---	-----

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
------------	---	-----

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

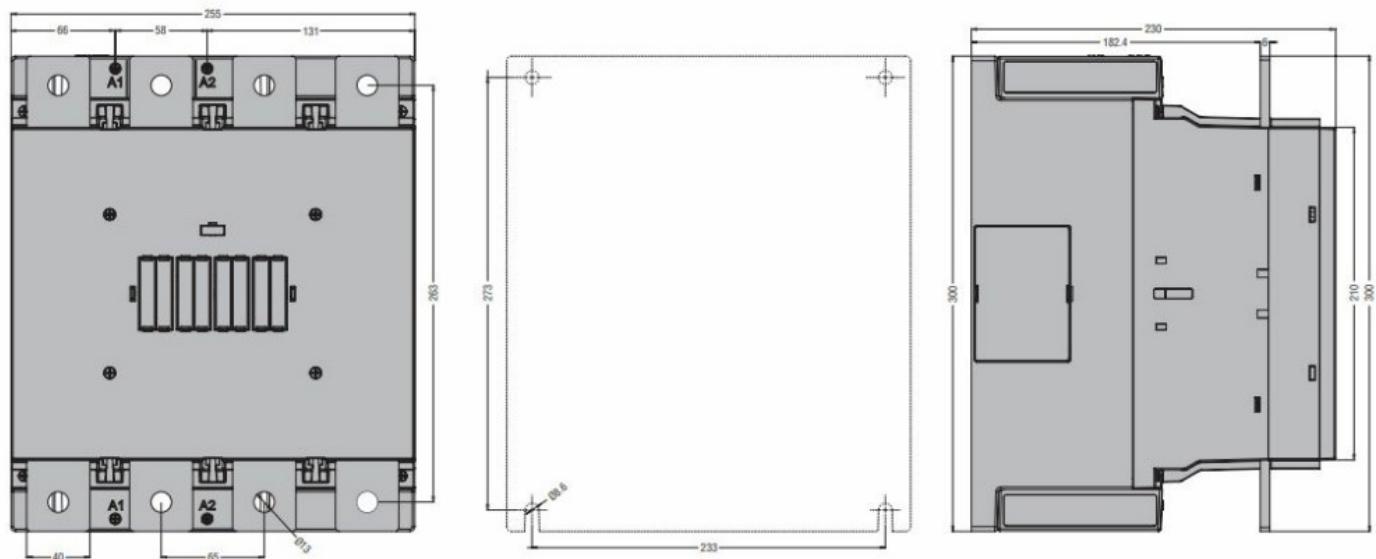
m	3000
---	------

Resistance & Protection

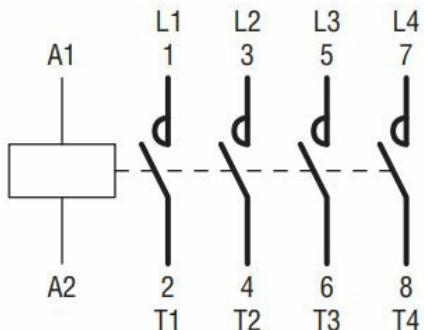
Pollution degree

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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching