



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 Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	650
	110V	A	600
	220V	A	600
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	550
	110V	A	320
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	550
	110V	A	550
	220V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms 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)		A	4050
Protection fuse			
	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)		mΩ	0.09
Power dissipation per pole (average value)			
	Ith	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				
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	24
		max	V	48
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

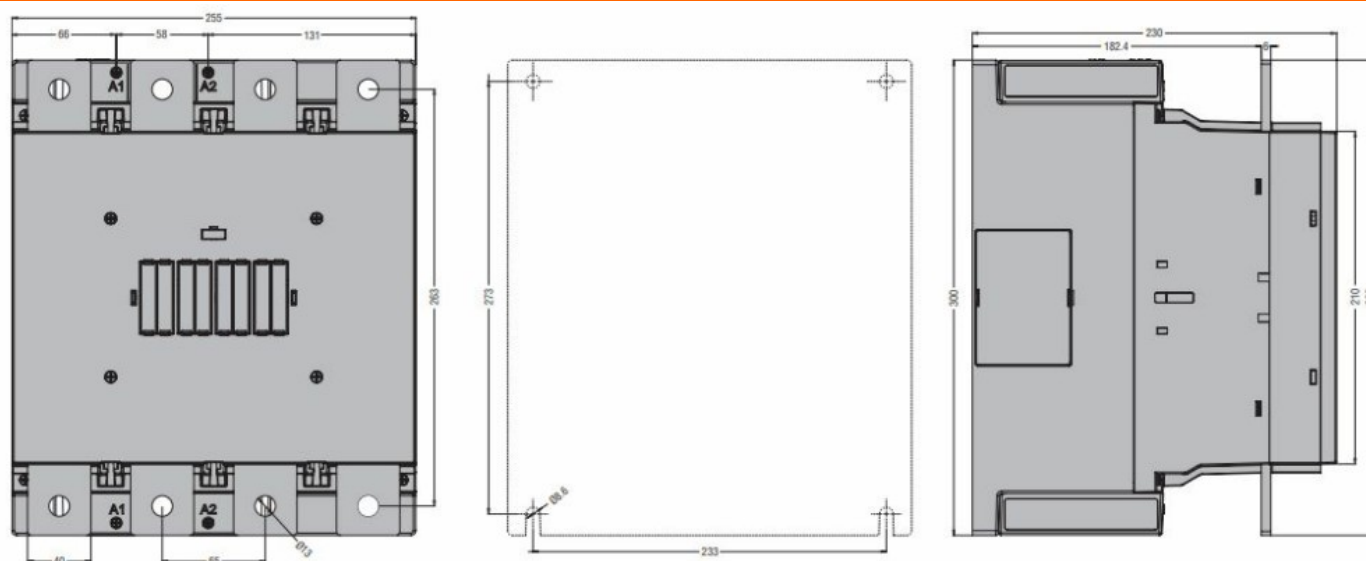
m	3000
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Resistance & Protection

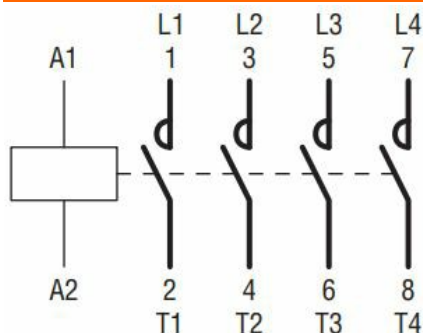
Pollution degree

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