



Product designation

Power contactor

Product type designation

BF420

**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	630
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 600
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 530
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 460
	AC-3 ( $\leq 440\text{V } \leq 55^\circ\text{C}$ )	A 420
	AC-4 (400V)	A 200
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V kW	132
	400V kW	200
	415V kW	250
	440V kW	250
	500V kW	250
	690V kW	355
	1000V kW	170
Rated operational current AC-3 ( $T \leq 55^\circ\text{C}$ )	230V A	420
	400V A	420
	415V A	420
	440V A	420
	500V A	344
	690V A	354
	1000V A	170
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V kW	238
	400V kW	436
	500V kW	480
	690V kW	753
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	330V A	350
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series	330V A	280
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series	330V A	350
	460V A	280
Short-time allowable current for 10s (IEC/EN60947-1)	A	3360

Protection fuse			
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	4200
Breaking capacity at voltage			
	440V	A	4200
	500V	A	2752
	690V	A	2832
Resistance per pole (average value)		mΩ	0.09
Power dissipation per pole (average value)			
	Ith	W	37
	AC-3	W	18
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
<b>Mechanical features</b>			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
<b>Operations</b>			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	700000
	mechanical load	cycles	5000000
EMC compatibility			yes
<b>AC coil operating</b>			
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
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## 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
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## Average coil consumption ≤20°C

in-rush	W	390
holding	W	4

## Max cycles frequency

Mechanical operation

cycles/h	1000
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## 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	150
460/480V	HP	350
575/600V	HP	450

## General USE

Contactor

AC current	A	630
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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

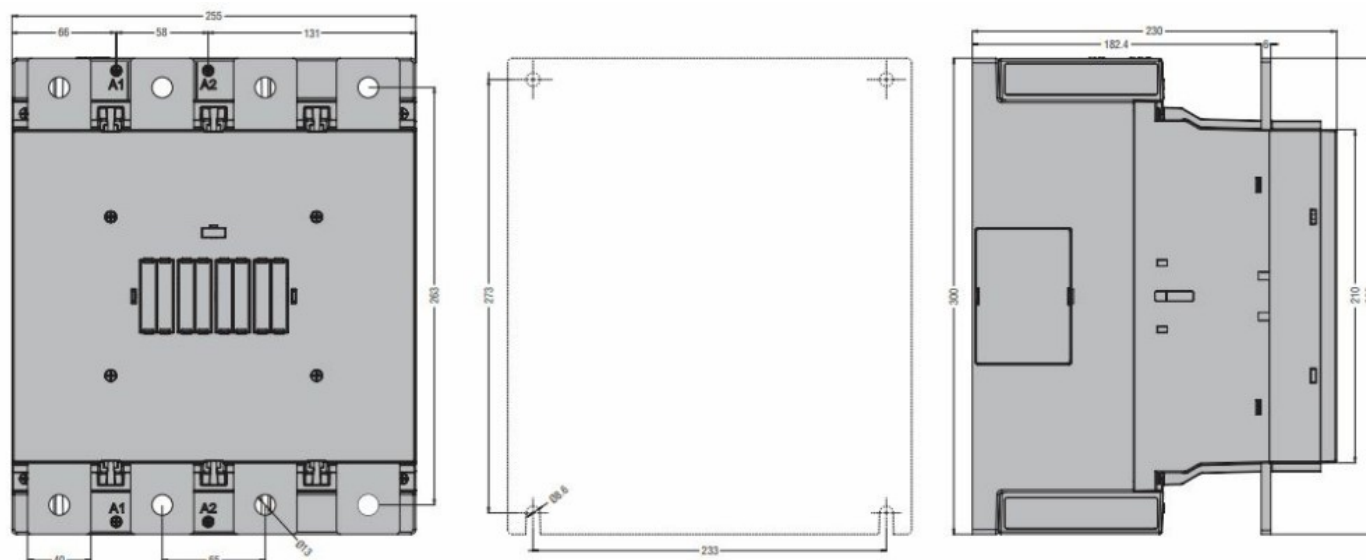
m 3000

## Resistance & Protection

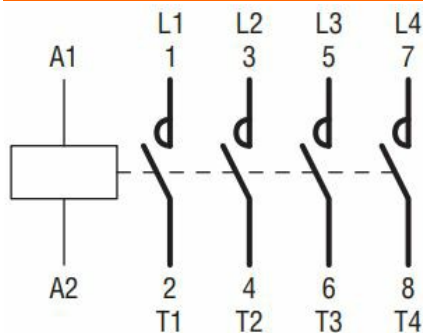
Pollution degree

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