



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
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Breaking capacity at voltage	440V	A	4200
	500V	A	2752
	690V	A	2832

Resistance per pole (average value)	mΩ	0.09
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Power dissipation per pole (average value)	I _{th}	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
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Mechanical features

Operating position	normal	Vertical plan
	allowable	±30°

Fixing	Screw
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Operations

Mechanical life	cycles	5000000
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Electrical life	cycles	700000
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Safety related data

Performance level B10d according to EN/ISO 13489-1
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rated load	cycles	700000
mechanical load	cycles	5000000

EMC compatibility	yes
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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
max	%Us	≤70 Us min

of 50/60Hz coil powered at 60Hz
pick-up

min	%Us	80 Us min
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	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	150
460/480V	HP	350
575/600V	HP	450

General USE

Contactor

AC current A 630

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

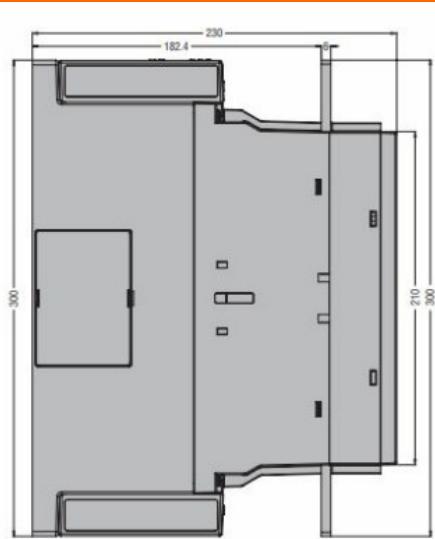
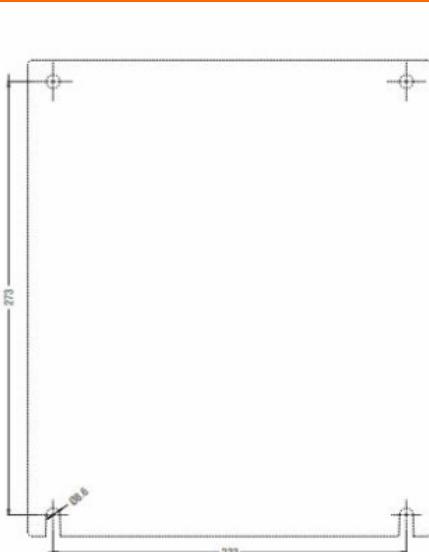
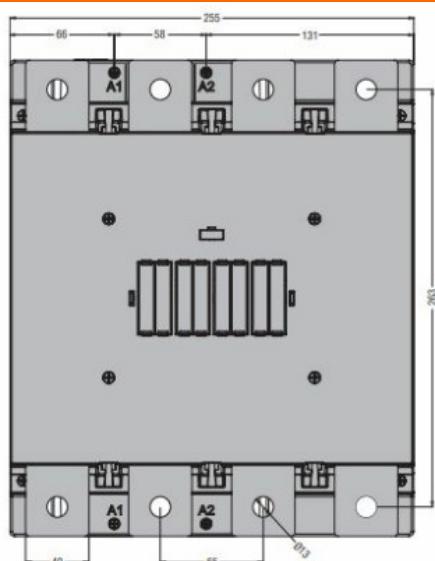
m 3000

Resistance & Protection

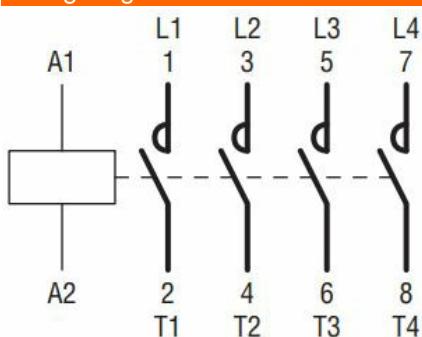
Pollution degree

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