



Product designation	Power contactor		
Product type designation	BF420		
Contact characteristics			
Number of poles	Nr.	3	
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 ($\leq 40^\circ C$)	A	600
	AC-1 ($\leq 55^\circ C$)	A	530
	AC-1 ($\leq 70^\circ C$)	A	460
	AC-3 ($\leq 440V \leq 55^\circ C$)	A	420
	AC-4 (400V)	A	200
Rated operational power AC-3 ($T \leq 55^\circ C$)	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 ($T \leq 55^\circ C$)	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 ($T \leq 40^\circ C$)	230V	kW	238
	400V	kW	436
	500V	kW	480
	690V	kW	753
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 3 poles in series	330V	A	350
IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ with 3 poles in series	330V	A	280
IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ 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	cycles	700000
	mechanical load	cycles

rated load	cycles	700000
mechanical load	cycles	5000000

EMC compatibility	yes
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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
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DC coil operating

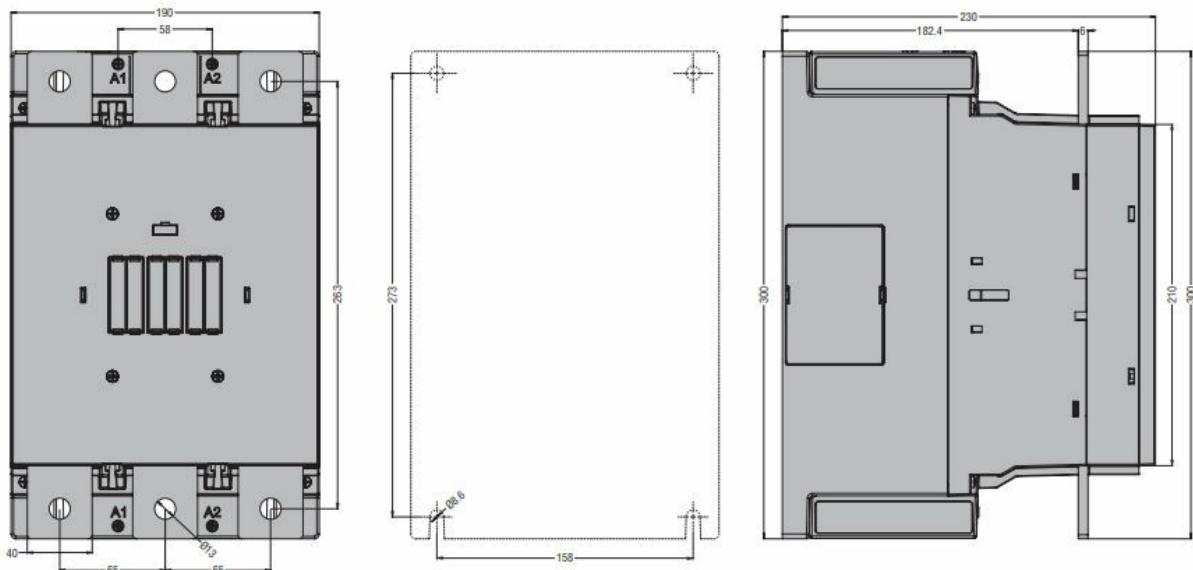
DC rated control voltage

min	V	24
max	V	48

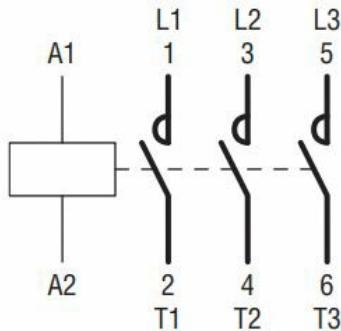
DC operating voltage

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	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