



Product designation

Power contactor

Product type designation

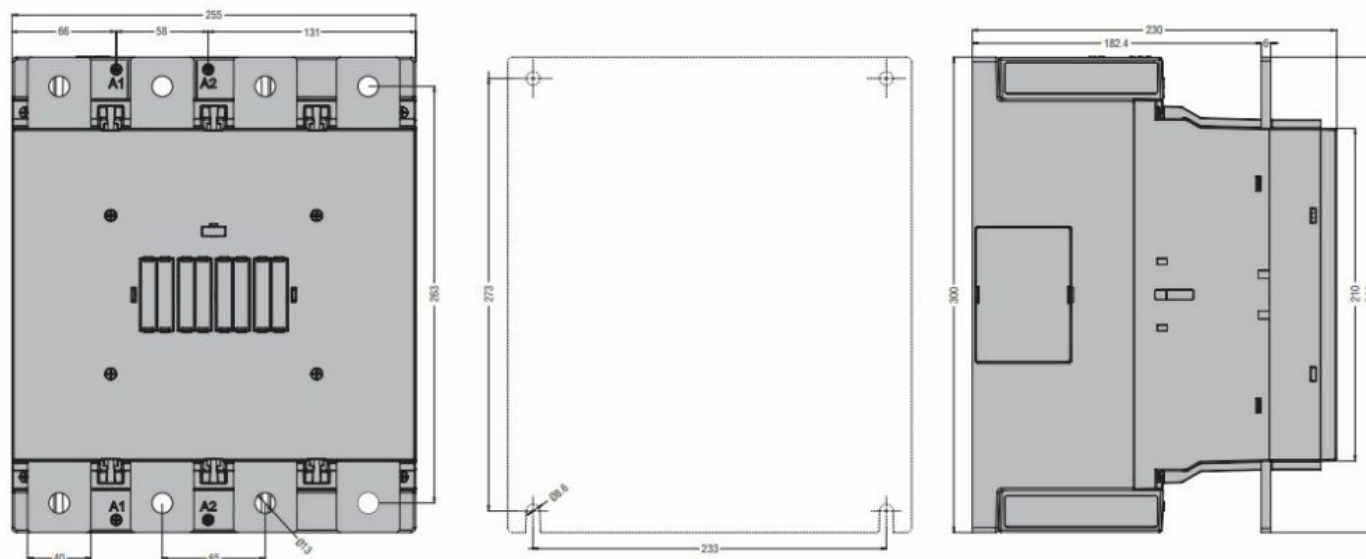
BF420

Contact characteristics

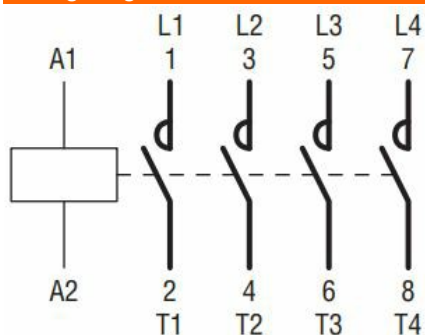
Number of poles	Nr.	4
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	630
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 600
	AC-1 ($\leq 55^\circ\text{C}$)	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
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Operations			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	700000
	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	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