



Product designation

Power contactor

Product type designation

BF630

**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	800
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 800
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 660
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 570
	AC-3 ( $\leq 440\text{V } \leq 55^\circ\text{C}$ )	A 630
	AC-4 (400V)	A 260
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 200
	400V	kW 355
	415V	kW 355
	440V	kW 400
	500V	kW 400
	690V	kW 500
	1000V	kW 250
Rated operational current AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	A 630
	400V	A 630
	415V	A 630
	440V	A 630
	500V	A 552
	690V	A 493
	1000V	A 250
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 303
	400V	kW 527
	500V	kW 579
	690V	kW 908
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A 800
	110V	A 460
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A 800
	110V	A 800
	220V	A 700
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series		

	75V	A	800
	110V	A	800
	220V	A	800
	330V	A	700
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	800
	110V	A	800
	220V	A	800
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	800
	110V	A	460
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	800
	110V	A	800
	220V	A	700
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	800
	110V	A	800
	220V	A	800
	330V	A	650
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	800
	110V	A	800
	220V	A	800
	330V	A	700
	460V	A	700
Short-time allowable current for 10s (IEC/EN60947-1)		A	5040
Protection fuse			
	gG (IEC)	A	1000
	aM (IEC)	A	630
Making capacity (RMS value)		A	6300
Breaking capacity at voltage			
	440V	A	6300
	500V	A	4416
	690V	A	3944
Resistance per pole (average value)		mΩ	0.09
Power dissipation per pole (average value)			
	Ith	W	64
	AC-3	W	40
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			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	100
	max	V	250
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
DC coil operating			
DC rated control voltage			
	min	V	100
	max	V	250
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
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Yielded mechanical performance

for three-phase AC motor

200/208V	HP	200
220/240V	HP	250
460/480V	HP	500
575/600V	HP	600

General USE

Contactor

AC current	A	800
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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

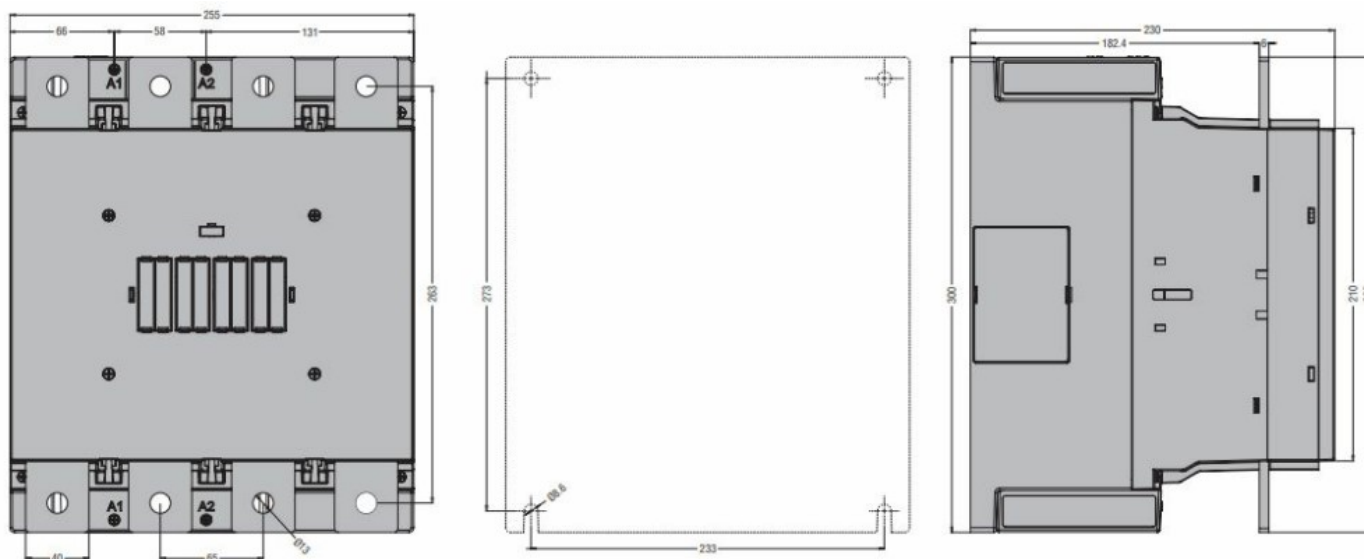
m	3000
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#### Resistance & Protection

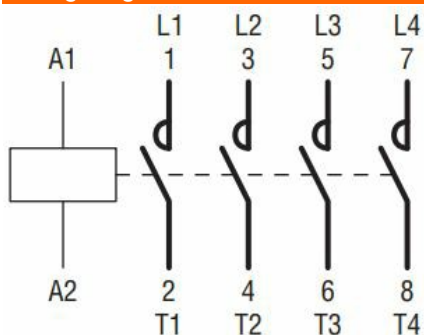
Pollution degree

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