



Product designation				Power contactor
Product type designation				B630
<b>Contact characteristics</b>				
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	640	
	AC-1 ( $\leq 70^\circ\text{C}$ )	A	540	
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	630	
	AC-4 (400V)	A	260	
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	288	
	400V	kW	500	
	500V	kW	655	
	690V	kW	860	
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	
	220V	A	--	
	330V	A	--	
	460V	A	--	
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	
	330V	A	--	
	460V	A	--	
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	
	460V	A	--	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	75V	A	800	
	110V	A	800	
	220V	A	800	
	330V	A	750	
	460V	A	700	

IEC max current I<sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series

75V	A	800
110V	A	460
220V	A	--
330V	A	--
460V	A	--

IEC max current I<sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series

75V	A	800
110V	A	800
220V	A	700
330V	A	--
460V	A	--

IEC max current I<sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series

75V	A	800
110V	A	800
220V	A	800
330V	A	650
460V	A	--

IEC max current I<sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series

75V	A	800
110V	A	800
220V	A	800
330V	A	650
460V	A	700

Short-time allowable current for 10s (IEC/EN60947-1)

A	5040
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Protection fuse

gG (IEC)	A	1000
aM (IEC)	A	630

Making capacity (RMS value)

A	6300
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Breaking capacity at voltage

440V	A	6300
500V	A	5600
690V	A	5000

Resistance per pole (average value)

mΩ	0.14
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Power dissipation per pole (average value)

I <sub>th</sub>	W	90
AC-3	W	56

Tightening torque for terminals

min	Nm	55
max	Nm	55
min	I <sub>bin</sub>	40.6
max	I <sub>bin</sub>	40.6

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	I <sub>bin</sub>	0.74
max	I <sub>bin</sub>	0.74

Max number of wires simultaneously connectable

Nr.	2
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Conductor section

AWG/Kcmil

max	2x 600 kcmil
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Power terminal protection according to IEC/EN 60529

IP00
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### Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight		g 2192
Conductor section		
	AWG/kcmil conductor section	
	max	2x 600 kcmil

**Operations**

Mechanical life	cycles	5000000
Electrical life	cycles	700000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles cycles	700000 5000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes

**AC coil operating**

Rated AC voltage at 50/60Hz	V	48
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AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	60
of 50/60Hz coil powered at 60Hz			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	60
of 60Hz coil powered at 60Hz			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	60

AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	400
	holding	VA	18
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	400
	holding	VA	18

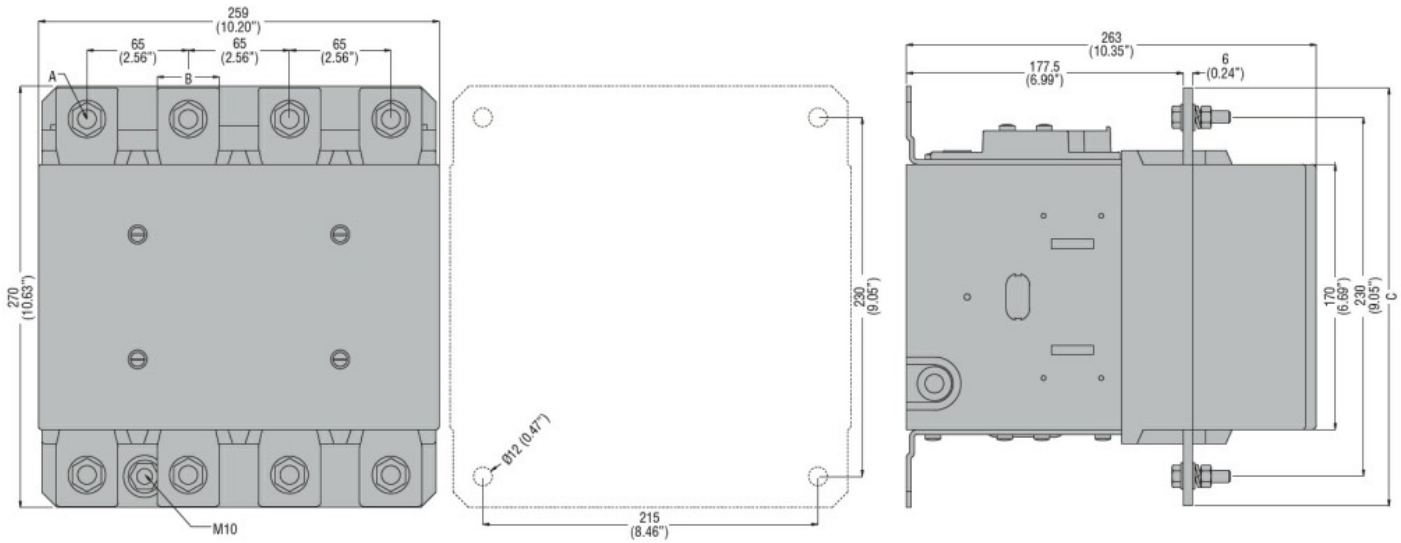
Dissipation at holding ≤20°C 50Hz	W	18
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**DC coil operating**

DC rated control voltage	V	48
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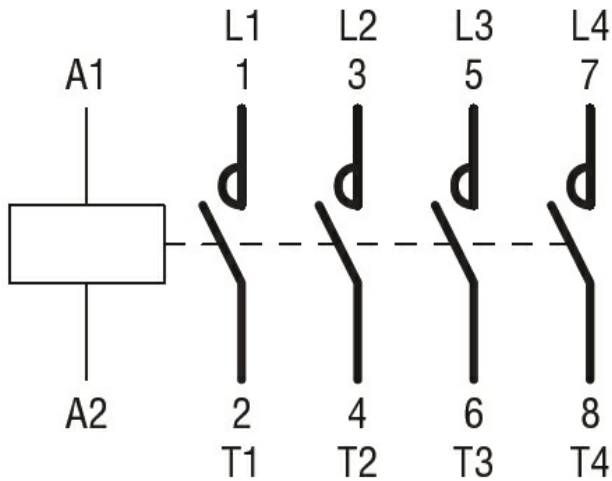
DC operating voltage		
pick-up		

		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$				
		in-rush	W	400
		holding	W	18
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	1200
<b>Operating times</b>				
Average time for Us control				
	in AC			
		Closing NO		
		min	ms	110
		max	ms	180
		Opening NO		
		min	ms	60
		max	ms	100
	in DC			
		Closing NO		
		min	ms	110
		max	ms	180
		Opening NO		
		min	ms	60
		max	ms	100
<b>UL technical data</b>				
General USE				
	Contactor			
		AC current	A	800
Short-circuit protection fuse, 600V				
	Standard fault			
		Short circuit current	kA	18
		Fuse rating	A	1500
		Fuse class		L
<b>Ambient conditions</b>				
Temperature				
	Operating temperature			
		min	$^{\circ}\text{C}$	-50
		max	$^{\circ}\text{C}$	70
	Storage temperature			
		min	$^{\circ}\text{C}$	-60
		max	$^{\circ}\text{C}$	80
Max altitude			m	3000
<b>Resistance &amp; Protection</b>				
Pollution degree				3
<b>Dimensions</b>				



CONTACTOR TYPE	A	B	C
B500	M10	35 (1.38")	265 (10.43")
B630	M12	40 (1.57")	270 (10.63")

**Wiring diagrams**



**Certifications and compliance**

**Compliance**

- CSA C22.2 n° 60947-1
- CSA C22.2 n° 60947-4-1
- IEC/EN 60947-1
- IEC/EN 60947-4-1
- UL 60947-1
- UL 60947-4-1

**Certificates**

- CCC
- cULus
- EAC

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching