



Product designation				Power contactor
Product type designation				B630
<b>Contact characteristics</b>				
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	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-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW	198	
	400V	kW	355	
	415V	kW	368	
	440V	kW	368	
	500V	kW	368	
	690V	kW	440	
	1000V	kW	368	
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 <sub>e</sub> in DC1 with L/R ≤ 1ms 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
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	5600
	690V	A	5000
Resistance per pole (average value)		mΩ	0.14
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
Conductor section			
		AWG/Kcmil	
	max		2x 600 kcmil
Power terminal protection according to IEC/EN 60529			IP00
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	1840
Conductor section			
		AWG/kcmil conductor section	
	max		2x 600 kcmil
<b>Operations</b>			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load mechanical load	cycles	700000
		cycles	5000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz		V	48
AC operating voltage			
		of 50/60Hz coil powered at 50Hz	
		pick-up	
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
		drop-out	
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
		of 50/60Hz coil powered at 60Hz	
		pick-up	
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
		drop-out	
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
		of 60Hz coil powered at 60Hz	
		pick-up	
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
		drop-out	
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
AC average coil consumption at 20°C			
		of 50/60Hz coil powered at 50Hz	
	in-rush holding	VA	400
		VA	18

of 50/60Hz coil powered at 60Hz

	in-rush	VA	400
	holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	18
<b>DC coil operating</b>			
DC rated control voltage		V	48
<b>DC operating voltage</b>			
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

**Max cycles frequency**

Mechanical operation	cycles/h	1200
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**Operating times**

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

**UL technical data**

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

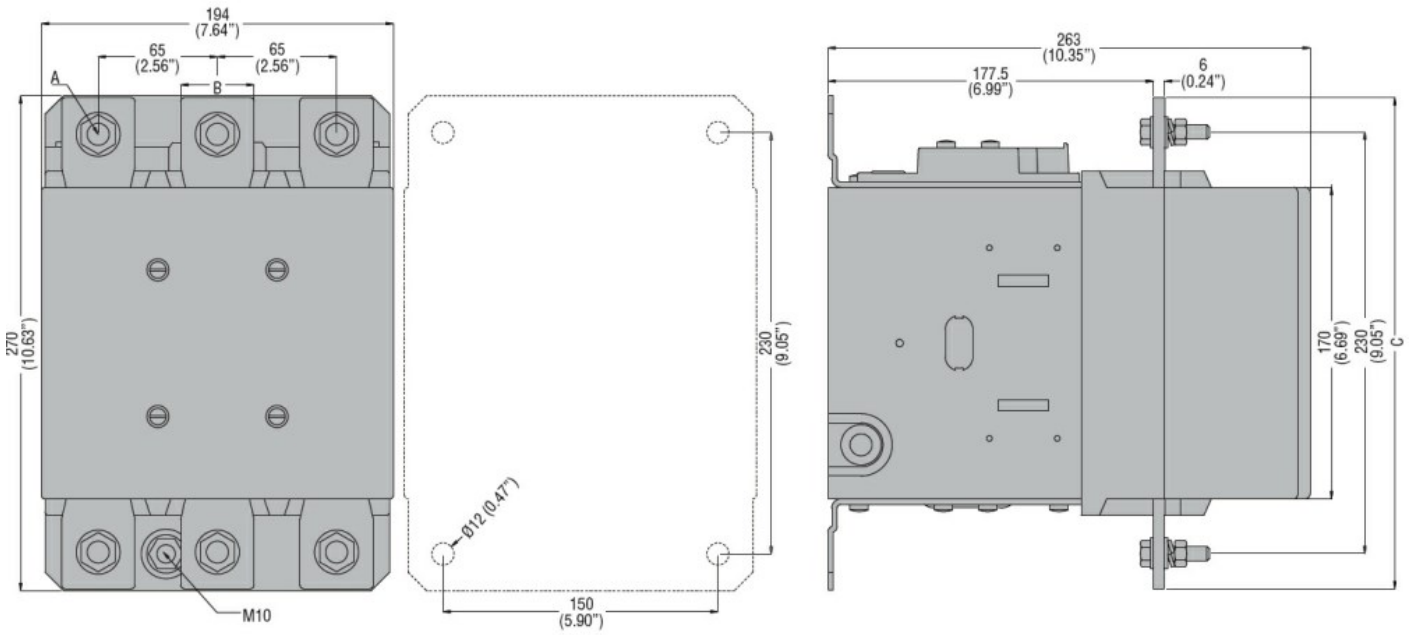
**Ambient conditions**

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

**Resistance & Protection**

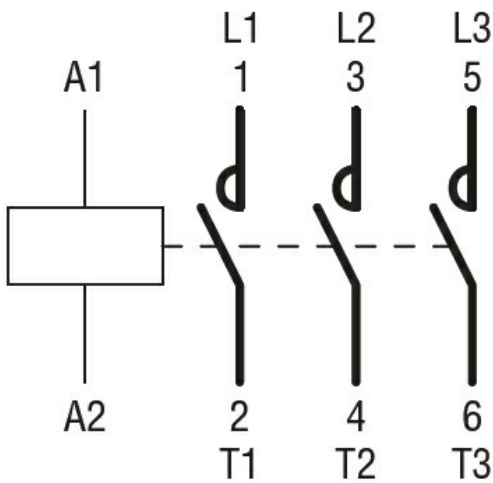
Pollution degree	3
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**Dimensions**



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