



Product designation				Power contactor
Product type designation				B630
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	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_e 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_e 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_e 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_e 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 _{th}	W	90
AC-3	W	56

Tightening torque for terminals

min	Nm	55
max	Nm	55
min	I _{bin}	40.6
max	I _{bin}	40.6

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	I _{bin}	0.74
max	I _{bin}	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

Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	2188
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	700000
		cycles	5000000

Mirror contacts according to IEC/EN 60947-4-1

EMC compatibility

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

	min	V	110
	max	V	125

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

		min	V	110
		max	V	125
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

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

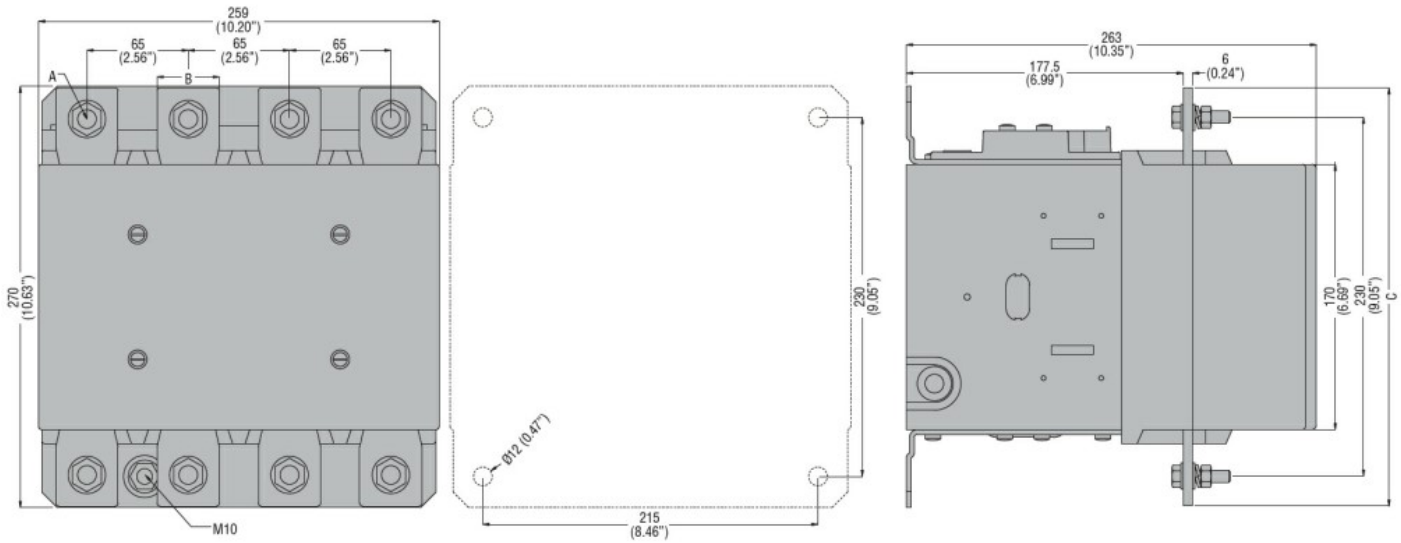
Temperature				
	Operating temperature			
		min	$^{\circ}\text{C}$	-50
		max	$^{\circ}\text{C}$	70
	Storage temperature			
		min	$^{\circ}\text{C}$	-60
		max	$^{\circ}\text{C}$	80

Max altitude		m		3000
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Resistance & Protection

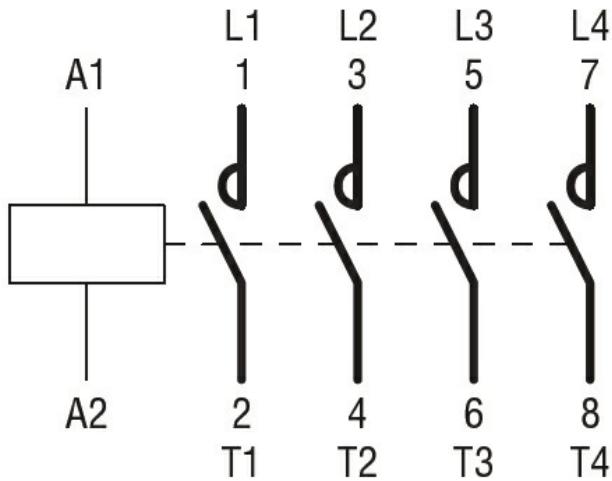
Pollution degree				3
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Dimensions



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