



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 $L/R \leq 15\text{ms}$ with 1 poles in series

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

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series

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

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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)

m?	0.14
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Power dissipation per pole (average value)

I_{th}	W	90
AC3	W	56

Tightening torque for terminals

min	Nm	55
max	Nm	55
min	lbin	40.6
max	lbin	40.6

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	lbin	0.74
max	lbin	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	2220

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			yes
EMC compatibility			yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

min	V	220
max	V	240

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

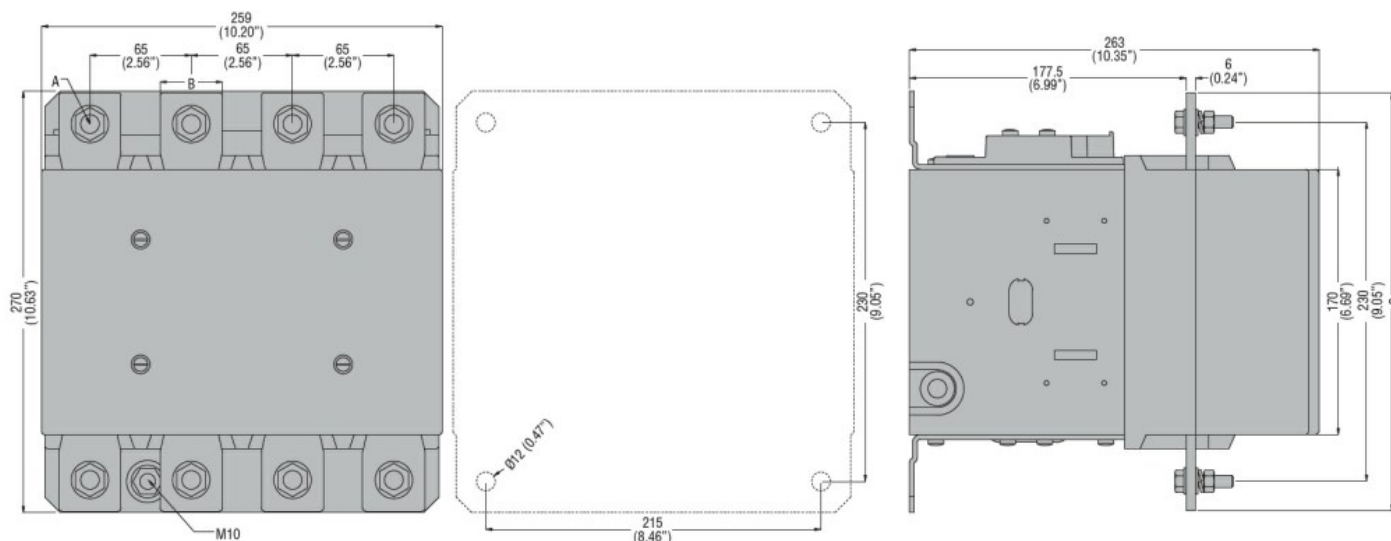
Dissipation at holding ≤20°C 50Hz

W	18
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DC coil operating

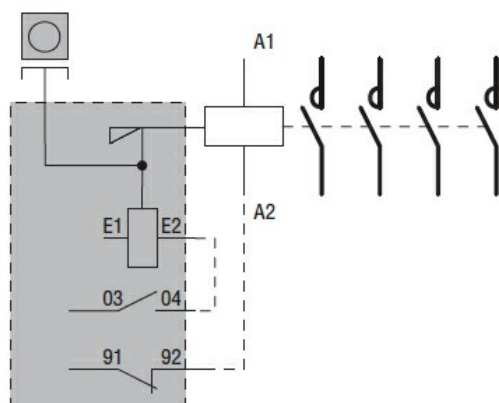
DC rated control voltage

		min	V	220
		max	V	240
DC operating voltage				
pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
Average coil consumption ≤20°C				
		in-rush	W	400
		holding	W	18
Max cycles frequency				
Mechanical operation			cycles/h	1200
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	°C	-50	
	max	°C	70	
Storage temperature		min	°C	-60
		max	°C	80
Max altitude			m	3000



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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching