



Product designation Power contactor  
Product type designation B180

**Contact characteristics**

Number of poles	Nr.	4
Rated insulation voltage U <sub>i</sub> IEC/EN	V	1000
Rated impulse withstand voltage U <sub>imp</sub>	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I <sub>th</sub>	A	275
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 275
	AC-1 (≤55°C)	A 250
	AC-1 (≤70°C)	A 200
	AC-3 (≤440V ≤55°C)	A 185
	AC-4 (400V)	A 65
Rated operational power AC-1 (T≤40°C)	230V	kW 95
	400V	kW 160
	500V	kW 213
	690V	kW 298
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	75V	A 260
	110V	A 120
	220V	A –
	330V	A –
	460V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	75V	A 260
	110V	A 170
	220V	A 150
	330V	A –
	460V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series	75V	A 260
	110V	A 170
	220V	A 170
	330V	A 150
	460V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series	75V	A 260
	110V	A 170
	220V	A 170
	330V	A 170
	460V	A 150

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

75V	A	180
110V	A	90
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	180
110V	A	140
220V	A	100
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	180
110V	A	160
220V	A	140
330V	A	100
460V	A	–

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

75V	A	180
110V	A	160
220V	A	160
330V	A	160
460V	A	100

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

A	1500
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Protection fuse

gG (IEC)	A	315
aM (IEC)	A	200

Making capacity (RMS value)

A	1850
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Breaking capacity at voltage

440V	A	1850
500V	A	1600
690V	A	1480

Resistance per pole (average value)

mΩ	0.3
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Power dissipation per pole (average value)

I <sub>th</sub>	W	20.3
AC-3	W	9.7

Tightening torque for terminals

min	Nm	18
max	Nm	18
min	I <sub>bin</sub>	13.3
max	I <sub>bin</sub>	13.3

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	300 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	6250
Conductor section	AWG/kcmil conductor section	
	max	300 kcmil

**Operations**

Mechanical life	cycles	10000000
Electrical life	cycles	1000000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles cycles	1000000 10000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes

**AC coil operating**

Rated AC voltage at 50/60Hz	V	60
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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	300
	holding	VA	10
of 50/60Hz coil powered at 60Hz	in-rush	VA	300
	holding	VA	10

Dissipation at holding ≤20°C 50Hz	W	10
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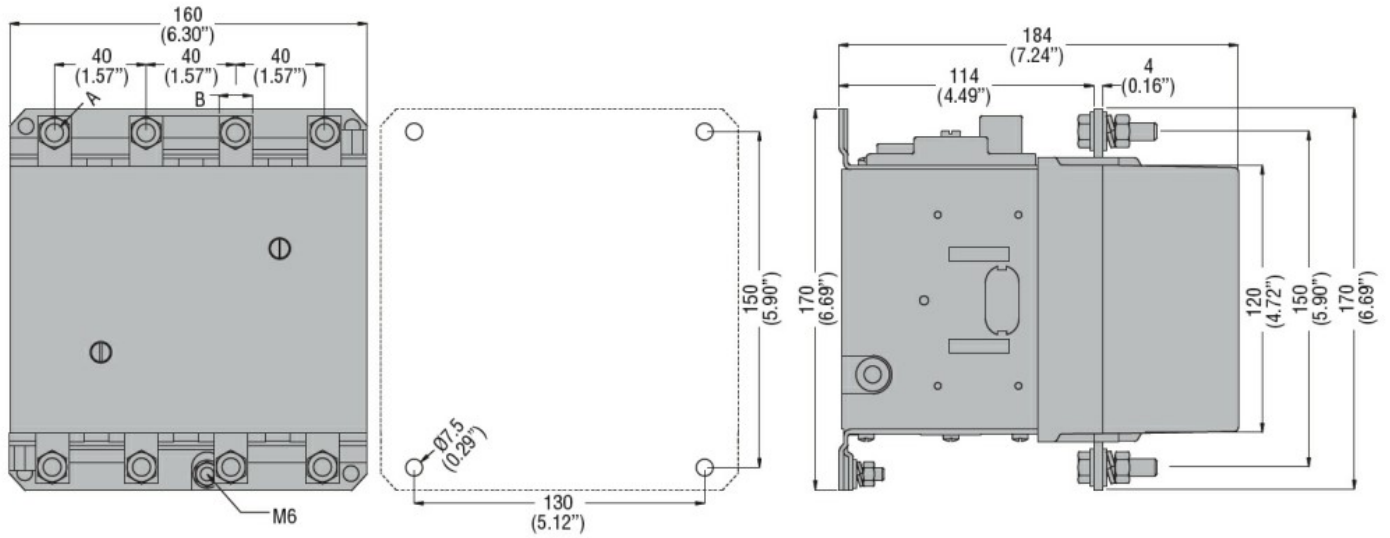
**DC coil operating**

DC rated control voltage	V	60
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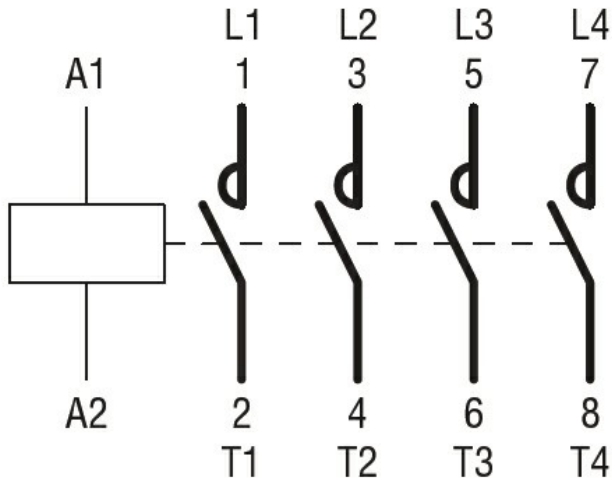
DC operating voltage		
pick-up		

		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	60
Average coil consumption ≤20°C				
		in-rush	W	300
		holding	W	10
<b>Max cycles frequency</b>				
Mechanical operation				cycles/h 2400
<b>Operating times</b>				
Average time for Us control				
in AC				
	Closing NO	min	ms	60
		max	ms	100
	Opening NO	min	ms	25
		max	ms	60
in DC				
	Closing NO	min	ms	60
		max	ms	100
	Opening NO	min	ms	25
		max	ms	60
<b>UL technical data</b>				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	180
		at 600V	A	144
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	60
		220/230V	HP	75
		575/600V	HP	150
General USE				
Contactor				
		AC current	A	275
Short-circuit protection fuse, 600V				
Standard fault				
		Short circuit current	kA	10
		Fuse rating	A	500
		Fuse class		RK5
<b>Ambient conditions</b>				
Temperature				
Operating temperature				
		min	°C	-50
		max	°C	70
Storage temperature				
		min	°C	-60
		max	°C	80
Max altitude				m 3000
<b>Resistance &amp; Protection</b>				
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 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

