



Product designation

Power contactor

Product type designation

B310

**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	450
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 450
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 370
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 300
	AC-3 ( $\leq 440\text{V } \leq 55^\circ\text{C}$ )	A 320
	AC-4 (400V)	A 150
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V kW	158
	400V kW	270
	500V kW	350
	690V kW	488
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V A	375
	110V A	195
	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	375
	110V A	350
	220V A	300
	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	375
	110V A	350
	220V A	350
	330V A	300
	460V A	--
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	75V A	375
	110V A	350
	220V A	350
	330V A	350
	460V A	300

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 1 poles in series

75V	A	310
110V	A	170
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	310
110V	A	290
220V	A	230
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	310
110V	A	310
220V	A	290
330V	A	230
460V	A	--

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 4 poles in series

75V	A	310
110V	A	310
220V	A	310
330V	A	230
460V	A	230

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

A	2900
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Protection fuse

gG (IEC)	A	500
aM (IEC)	A	400

Making capacity (RMS value)

A	3150
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Breaking capacity at voltage

440V	A	3000
500V	A	2700
690V	A	2520

Resistance per pole (average value)

mΩ	0.2
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Power dissipation per pole (average value)

$I_{th}$	W	40.5
AC-3	W	20

Tightening torque for terminals

min	Nm	35
max	Nm	35
min	Ibin	25.8
max	Ibin	25.8

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	Ibin	0.74
max	Ibin	0.74

Max number of wires simultaneously connectable

Nr.	2
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Conductor section

AWG/Kcmil

max	2x 3/0
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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	1110

## Conductor section

AWG/kcmil conductor section

max 2x 3/0

## Operations

Mechanical life	cycles	10000000
Electrical life	cycles	700000

## Safety related data

Performance level B10d according to EN/ISO 13489-1

	rated load mechanical load	cycles	700000
		cycles	10000000

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	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	300
holding	VA	10

of 50/60Hz coil powered at 60Hz

in-rush	VA	300
holding	VA	10

Dissipation at holding ≤20°C 50Hz

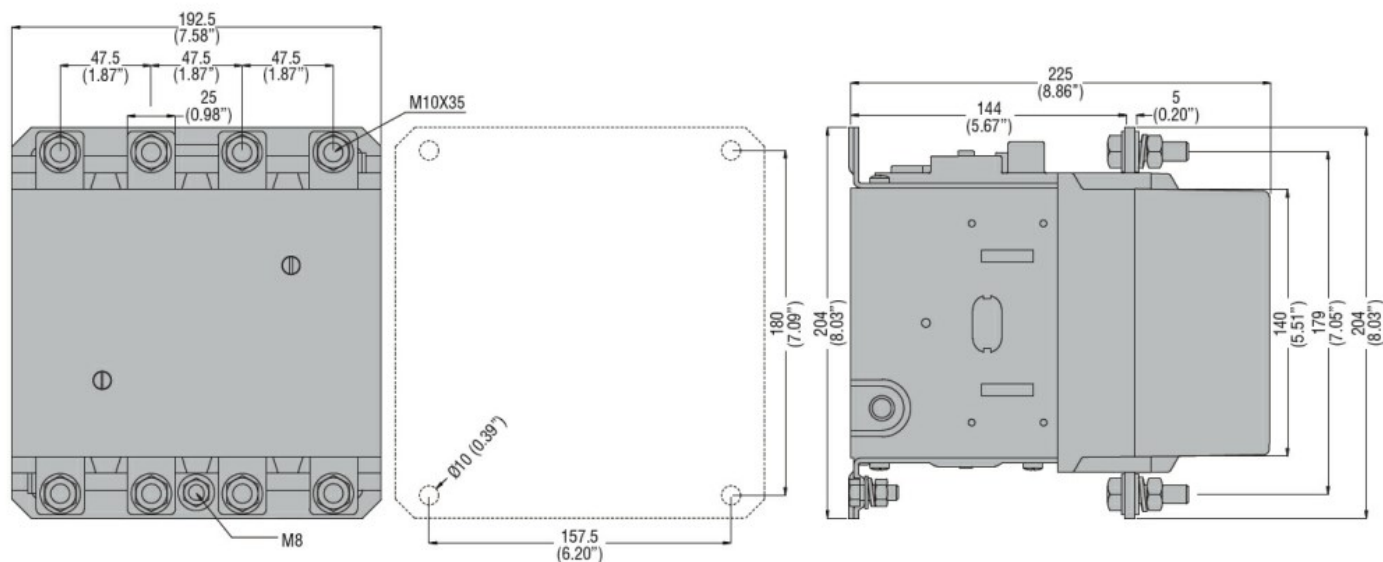
W	10
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## DC coil operating

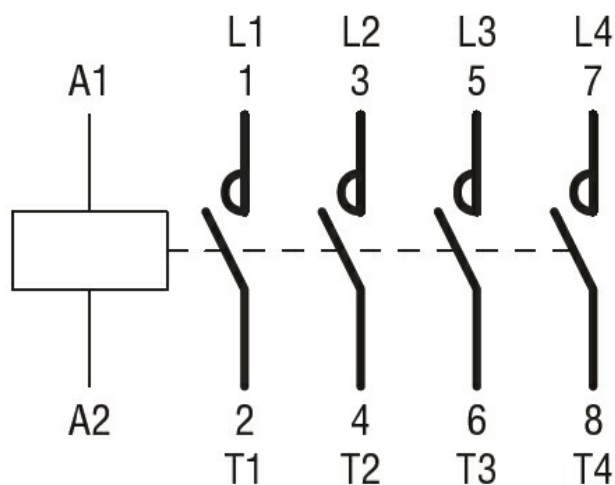
DC rated control voltage

		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 ≤20°C				
		in-rush	W	300
		holding	W	10
Max cycles frequency				
Mechanical operation			cycles/h	2400
Operating times				
Average time for Us control				
in AC	Closing NO	min	ms	80
		max	ms	120
	Opening NO	min	ms	30
		max	ms	75
in DC				
	Closing NO	min	ms	80
		max	ms	120
	Opening NO	min	ms	30
		max	ms	75
UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	301
		at 600V	A	289
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	100
		220/230V	HP	125
		460/480V	HP	250
		575/600V	HP	300
General USE				
Contactor				
		AC current	A	450
Short-circuit protection fuse, 600V				
Standard fault				
		Short circuit current	kA	18
		Fuse rating	A	800
		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
Resistance & Protection			
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