



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 Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series

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

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series

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

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series

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

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms 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)

Ith	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	1118
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 contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz	min	V	440
	max	V	415

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

DC coil operating

DC rated control voltage			
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		min	V	440
		max	V	415
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	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	$^{\circ}\text{C}$	-50
		max	$^{\circ}\text{C}$	70
	Storage temperature			

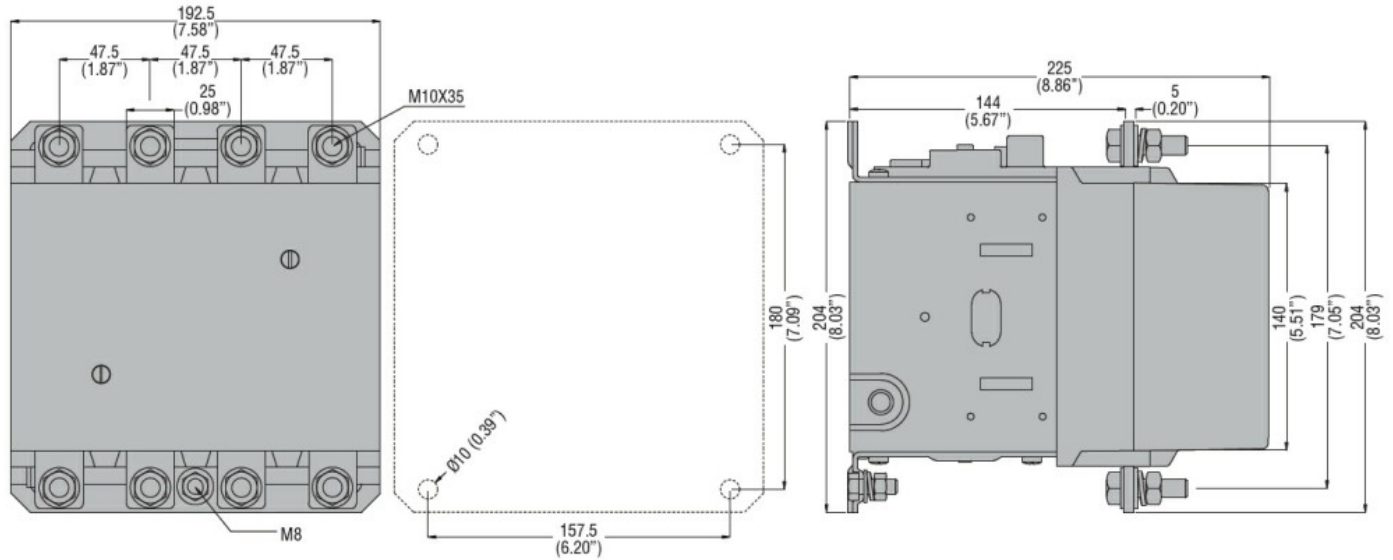
min	°C	-60
max	°C	80
Max altitude	m	3000

Resistance & Protection

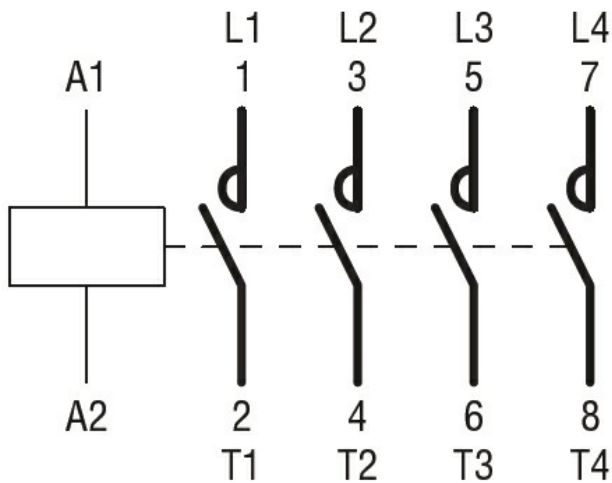
Pollution degree

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