



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 (≤40°C)	A	450	
	AC-1 (≤55°C)	A	370	
	AC-1 (≤70°C)	A	300	
	AC-3 (≤440V ≤55°C)	A	320	
	AC-4 (400V)	A	110	
Rated operational power AC-1 (T≤40°C)	230V	kW	158	
	400V	kW	270	
	440...480V	kW	350	
	690V	kW	488	
IEC max current I _e in DC1 with L/R ≤ 1ms 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 ≤ 1ms 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 ≤ 1ms 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 ≤ 1ms 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 ≤ 15ms 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 ≤ 15ms 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 ≤ 15ms 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 ≤ 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)

I _{th}	W	40.5
AC3	W	20

Tightening torque for terminals

min	Nm	35
max	Nm	35
min	lbin	25.8
max	lbin	25.8

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	lbft	0.74
max	lbft	0.74

Max number of wires simultaneously connectable

nr.	2
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Power terminal protection according to IEC/EN 60529

IP00

Mechanical features

Operating position

normal allowable	Vertical plan ±30°
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Fixing				Screw
Weight	g			1114
Operations				
Mechanical life	cycles			10000000
Electrical life	cycles			700000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
	rated load	cycles	700000	
	mechanical load	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	24	
	max	V	480	
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 operating voltage 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				
	min	V	24	
	max	V	500	
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
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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

Ambient conditions

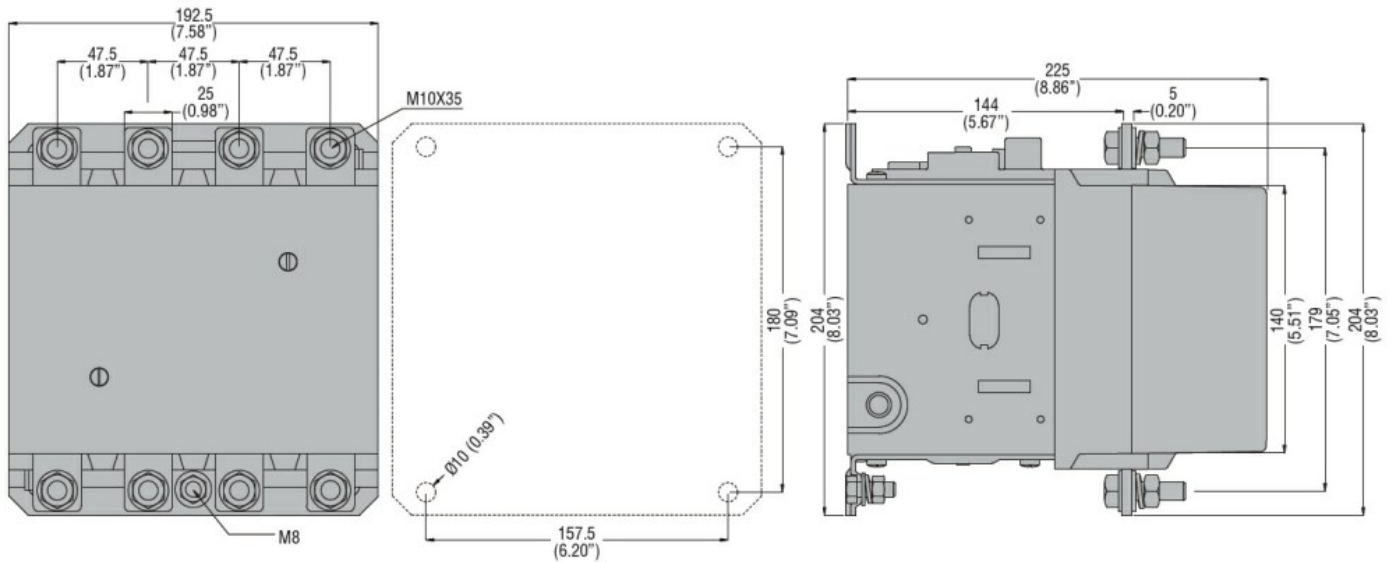
Temperature			
Operating temperature			
	min	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	70
Storage temperature			
	min	$^{\circ}\text{C}$	-60
	max	$^{\circ}\text{C}$	80

Max altitude	m	3000
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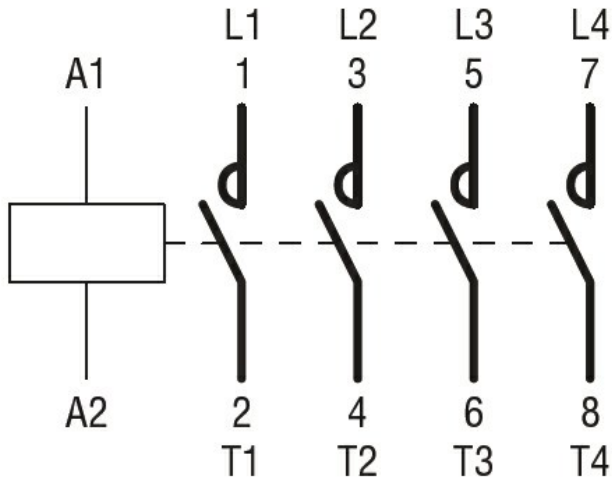
Resistance & Protection

Pollution degree	3
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Dimensions



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