



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	150	
Rated operational power AC-1 (T≤40°C)	230V	kW	158	
	400V	kW	270	
	500V	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
AC-3	W	20

Tightening torque for terminals

min	Nm	35
max	Nm	35
min	I _{bin}	25.8
max	I _{bin}	25.8

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	I _{bin}	0.74
max	I _{bin}	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	V	48
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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	48
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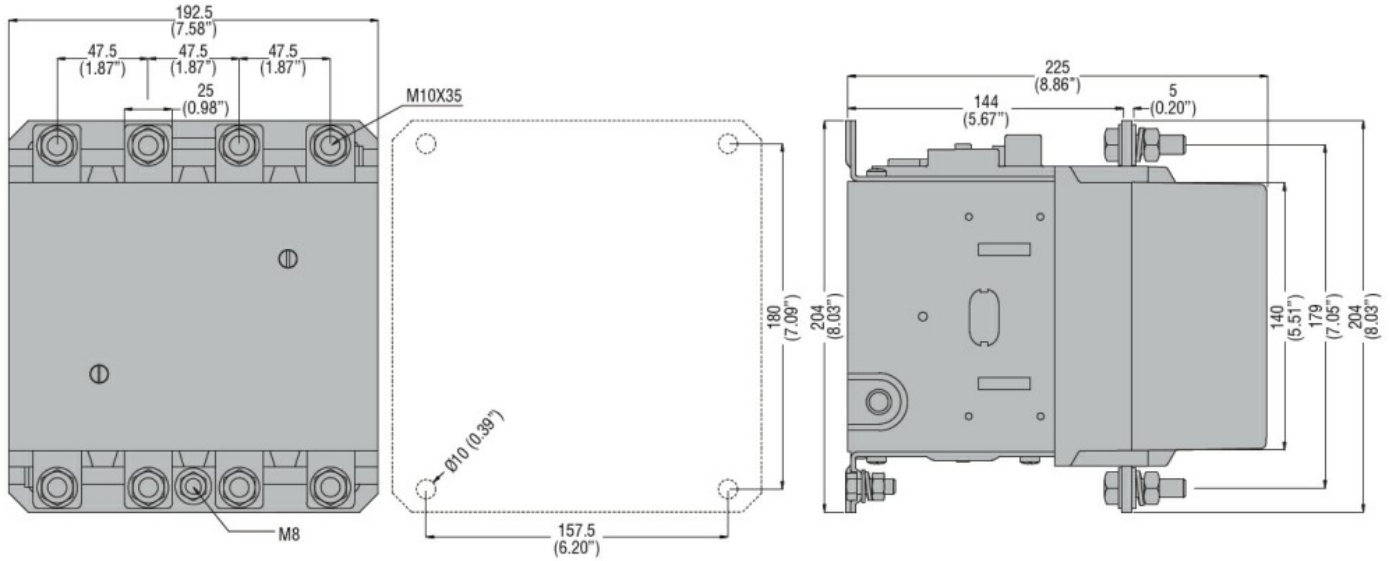
DC operating voltage		
pick-up		

		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$				
		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	$^{\circ}\text{C}$	-60
		max	$^{\circ}\text{C}$	80
Max altitude				m 3000
Resistance & Protection				

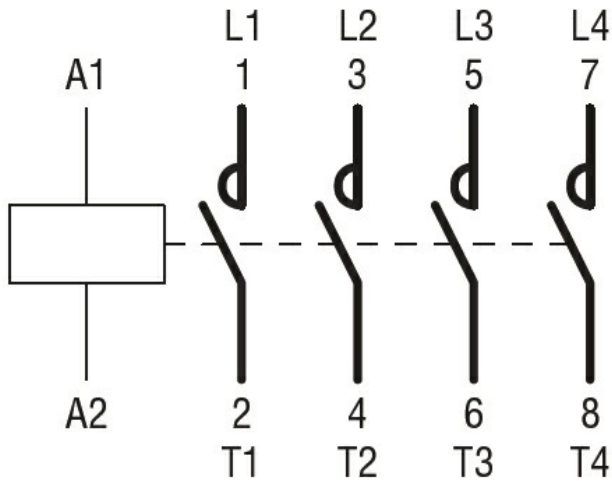
Pollution degree

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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

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching