



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
---	------

Protection fuse

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

Making capacity (RMS value)

A	3150
---	------

Breaking capacity at voltage

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

Resistance per pole (average value)

m?	0.2
----	-----

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	lbin	0.74
max	lbin	0.74

Max number of wires simultaneously connectable

Nr.	2
-----	---

Conductor section

AWG/Kcmil

max	2x 3/0
-----	--------

Power terminal protection according to IEC/EN 60529

IP00

Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	1112

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	380
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

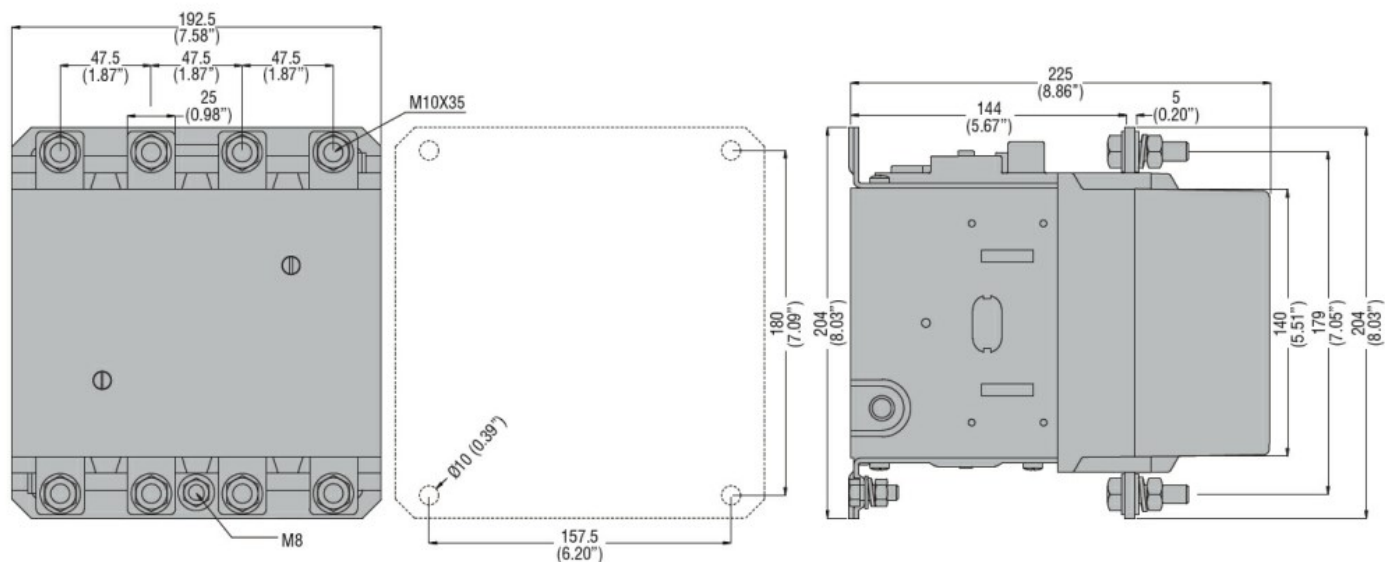
W	10
---	----

DC coil operating

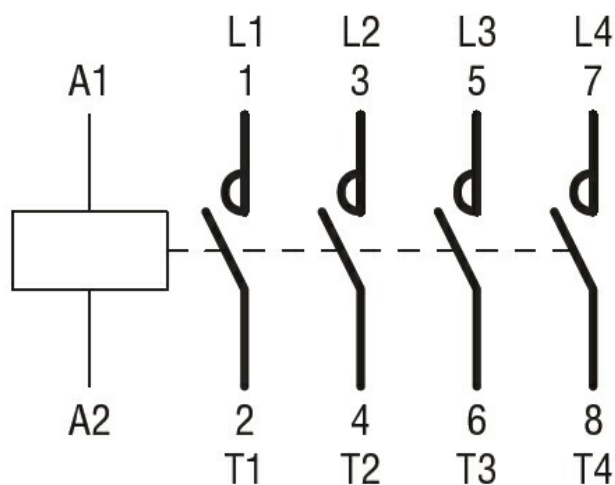
DC rated control voltage

		min	V	380		
		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 ≤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		
		Fuse rating		A		
		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