11B310400440

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 450A, AC/DC COIL, 440...480VAC/DC

Product designation			Power contactor
Product type designation			B310
Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	450
Operational current Ie			
	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 Ie 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 Ie 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 Ie 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 Ie 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 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
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)			
	Ith	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		Vertical plan
	allowable		±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	cycles	700000
	mechanical load	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			

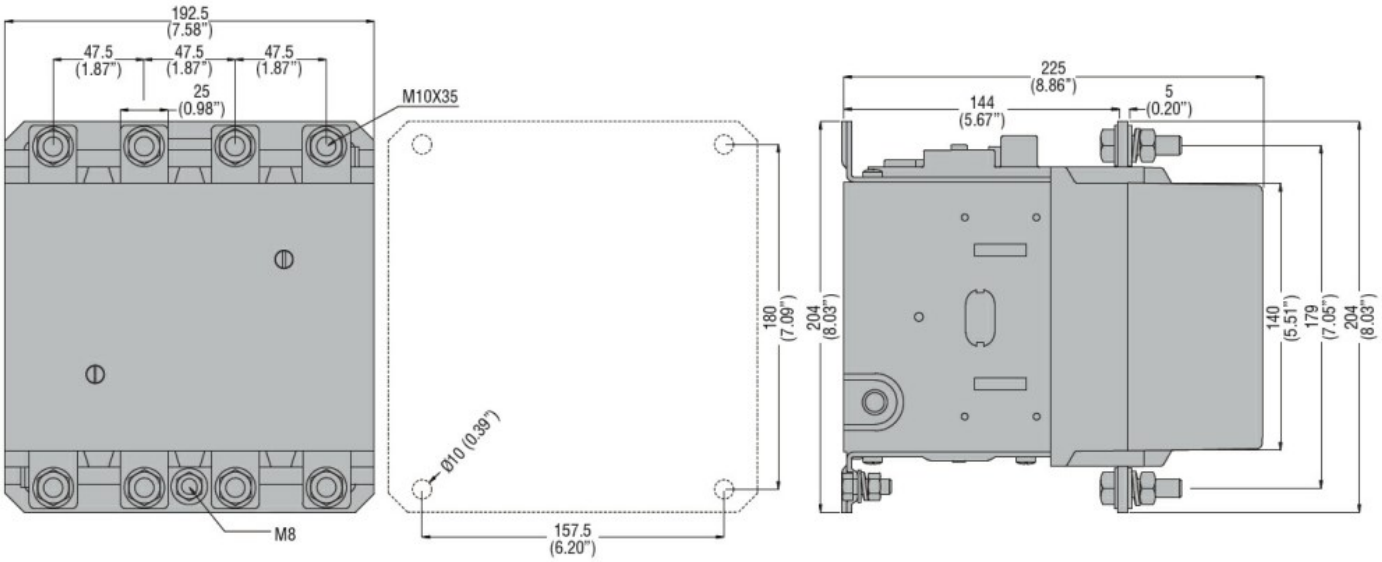
			min	V	440
			max	V	415
DC operating voltage					
	pick-up				
			min	%Us	80
			max	%Us	110
	drop-out				
			min	%Us	20
			max	%Us	60
Average coil consumption ≤20°C					
			in-rush	W	300
			holding	W	10
Max cycles frequency					
Mechanical operation				cycles/h	2400
Operating times					
Average time for 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

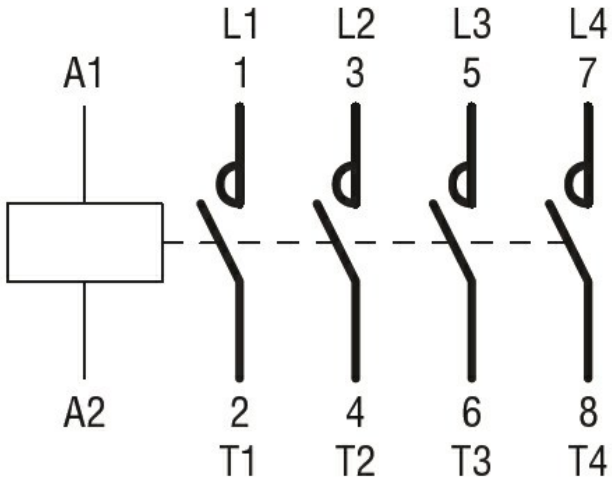
Resistance & Protection

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