



Product designation

Power contactor

Product type designation

B310

Contact characteristics

Number of poles	Nr.	3
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-3 (T=55°C)	230V	kW 100
	400V	kW 170
	415V	kW 188
	440V	kW 200
	500V	kW 213
	690V	kW 256
	1000V	kW 180
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 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	Ibin	25.8
	max	Ibin	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
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	9530
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 cycles	700000 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	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	60
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	60
	of 60Hz coil powered at 60Hz		
	pick-up		
	min	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	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	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

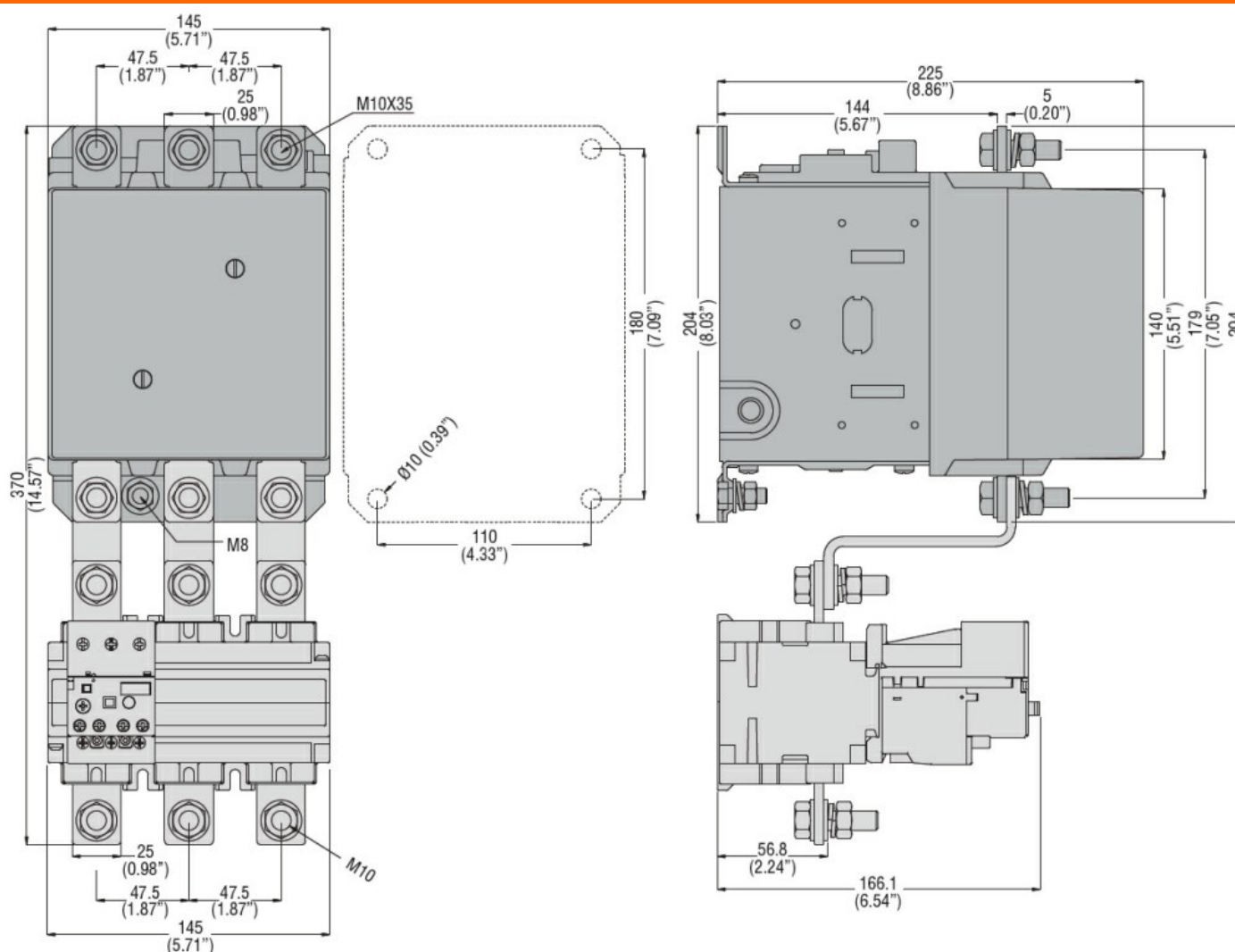
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Resistance & Protection

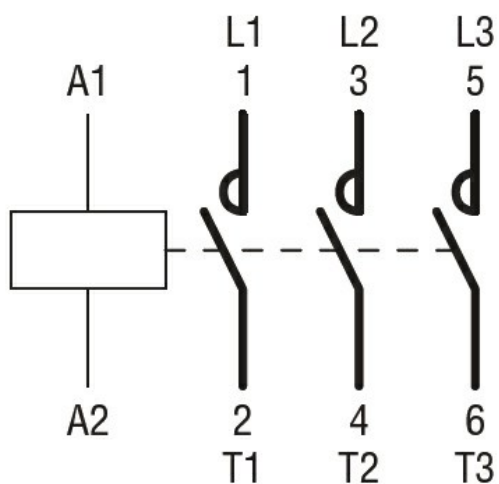
Pollution degree

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