



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 ($\leq 40^\circ C$)	A	450
	AC-1 ($\leq 55^\circ C$)	A	370
	AC-1 ($\leq 70^\circ C$)	A	300
	AC-3 ($\leq 440V \leq 55^\circ C$)	A	320
	AC-4 (400V)	A	150
Rated operational power AC-3 ($T \leq 55^\circ C$)			
	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 ($T \leq 40^\circ C$)			
	230V	kW	158
	400V	kW	270
	500V	kW	350
	690V	kW	488
IEC max current I_e in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1\text{ms}$ 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	Ibin	0.74		
	max	Ibin	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	9490			
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 10000000		
Mirror contacts according to IEC/EN 609474-4-1	yes				
EMC compatibility	yes				
AC coil operating					
Rated AC voltage at 50/60Hz	V	60			
AC operating voltage					
of 50/60Hz coil powered at 50Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 50/60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
AC average coil consumption at 20°C					
of 50/60Hz coil powered at 50Hz	in-rush holding	VA VA	300 10		

of 50/60Hz coil powered at 60Hz	in-rush	VA	300
	holding	VA	10
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	10
DC coil operating			
DC rated control voltage		V	60
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	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

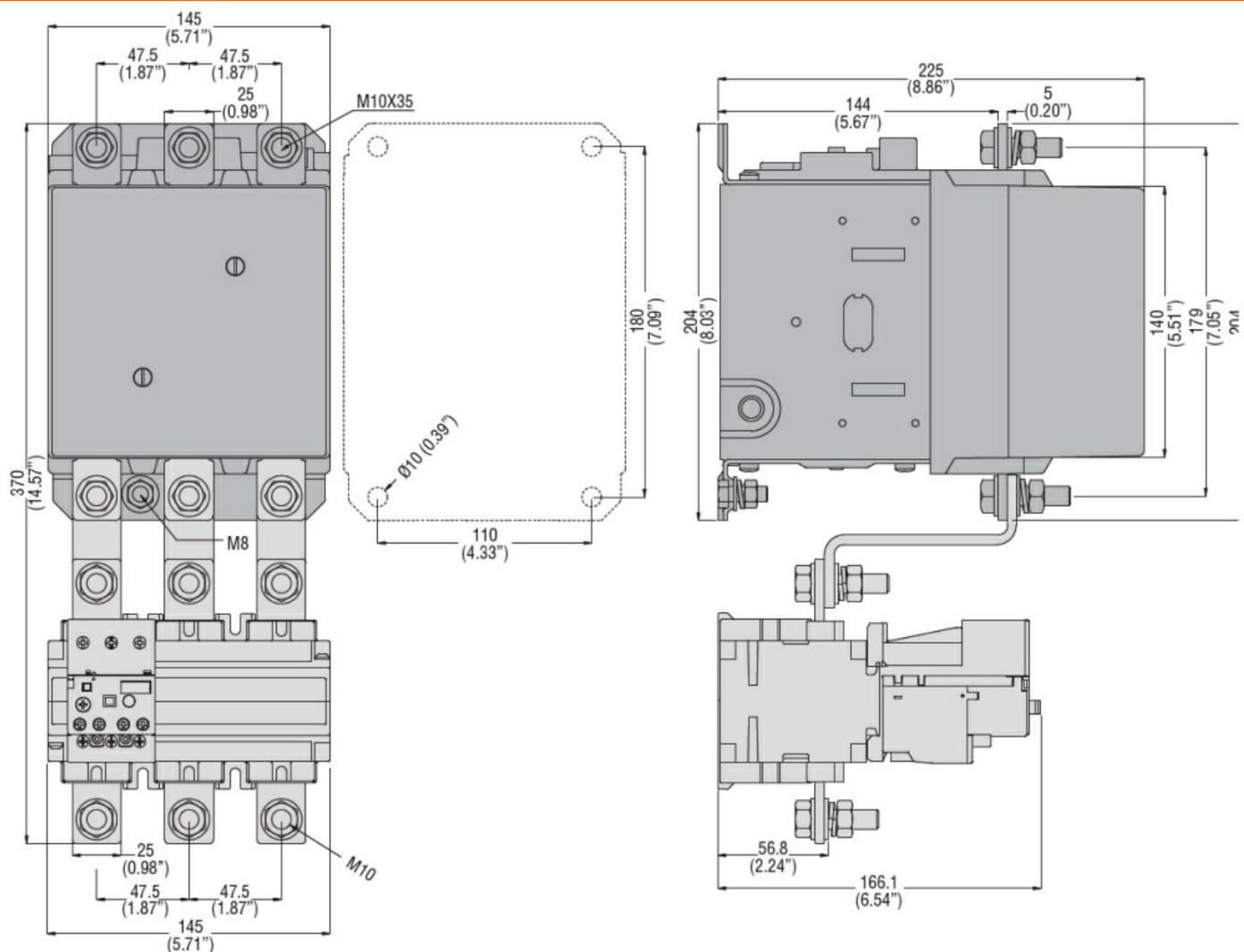
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Resistance & Protection

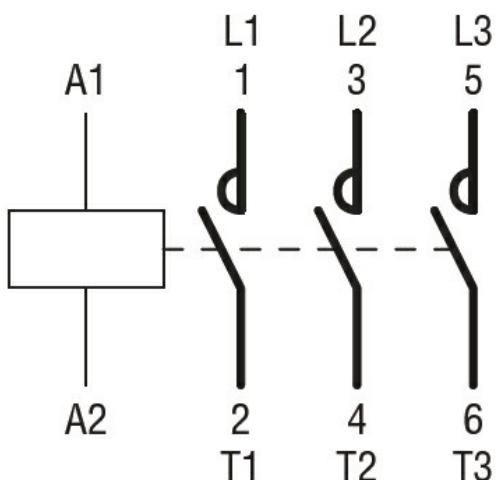
Pollution degree

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