Lovato electric
ENERGY AND AUTOMATION

11B25040048

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 350A, AC/DC COIL, 48VAC/DC

Product designation			Power contactor
Product type designation			B250
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	350
Operational current Ie			
	AC-1 (≤40°C)	A	350
	AC-1 (≤55°C)	A	300
	AC-1 (≤70°C)	A	250
	AC-3 (≤440V ≤55°C)	A	265
	AC-4 (400V)	A	115
Rated operational power AC-1 (T≤40°C)			
	230V	kW	124
	400V	kW	214
	500V	kW	282
	690V	kW	380
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	350
	110V	A	160
	220V	A	--
	330V	A	--
	460V	A	--
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	350
	110V	A	300
	220V	A	250
	330V	A	--
	460V	A	--
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	A	350
	110V	A	300
	220V	A	300
	330V	A	250
	460V	A	--
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	350
	110V	A	300
	220V	A	300
	330V	A	300
	460V	A	250

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	280
	110V	A	150
	220V	A	--
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	280
	110V	A	250
	220V	A	200
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	280
	110V	A	280
	220V	A	250
	330V	A	200
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	280
	110V	A	280
	220V	A	280
	330V	A	200
	460V	A	200
Short-time allowable current for 10s (IEC/EN60947-1)		A	2200
Protection fuse			
	gG (IEC)	A	400
	aM (IEC)	A	250
Making capacity (RMS value)		A	2750
Breaking capacity at voltage			
	440V	A	2500
	500V	A	2250
	690V	A	2200
Resistance per pole (average value)		mΩ	0.2
Power dissipation per pole (average value)			
	Ith	W	24.5
	AC-3	W	12.5
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		500 kcmil
Power terminal protection according to IEC/EN 60529			IP00

Mechanical features

Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	1080
Conductor section			
AWG/kcmil conductor section			
	max		500 kcmil
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1000000
	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		V	48
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		V	48
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	240
			at 600V	A	242
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	75
			220/230V	HP	100
			575/600V	HP	250
General USE					
	Contactor				
			AC current	A	350
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

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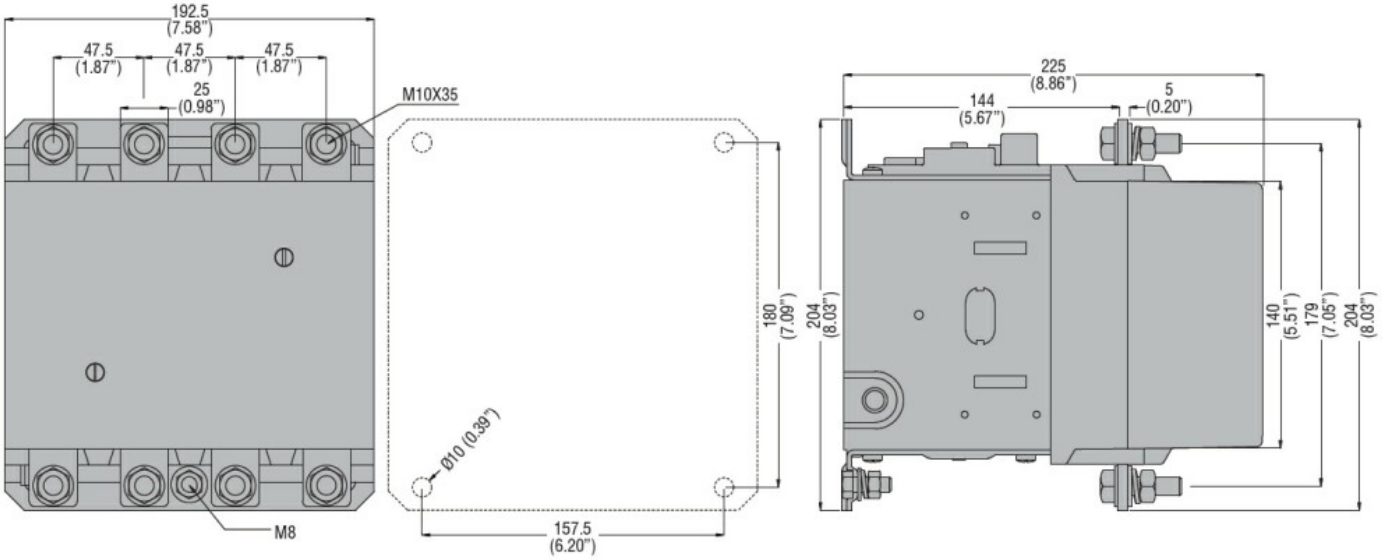
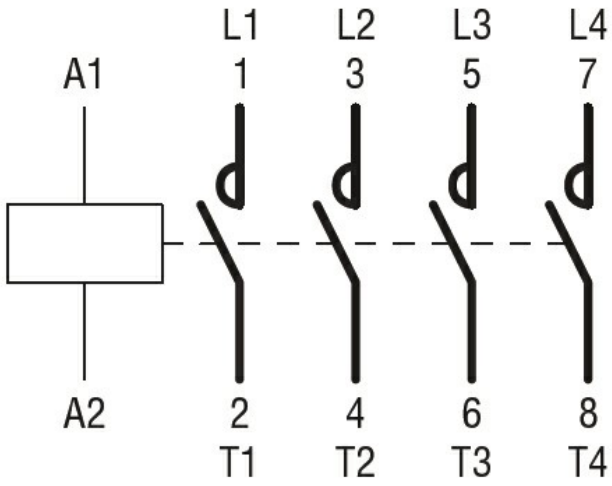
Dimensions



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