Lovato electric
ENERGY AND AUTOMATION

11B11540048

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 160A, AC/DC COIL, 48VAC/DC

Product designation			Power contactor
Product type designation			B115
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	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	150
	AC-1 (≤70°C)	A	110
	AC-3 (≤440V ≤55°C)	A	110
	AC-4 (400V)	A	47
Rated operational power AC-1 (T≤40°C)			
	230V	kW	57
	400V	kW	98
	500V	kW	129
	690V	kW	173
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	160
	110V	A	100
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	160
	110V	A	130
	220V	A	100
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	A	160
	110V	A	130
	220V	A	130
	330V	A	100
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	160
	110V	A	130
	220V	A	130
	330V	A	130
	460V	A	100

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	140
	110V	A	70
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	140
	110V	A	100
	220V	A	80
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	140
	110V	A	120
	220V	A	100
	330V	A	80
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	140
	110V	A	120
	220V	A	120
	330V	A	120
	460V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)		A	1100
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1300
Breaking capacity at voltage			
	440V	A	1300
	500V	A	1100
	690V	A	880
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	Ith	W	7.7
	AC-3	W	4
Tightening torque for terminals			
	min	Nm	10
	max	Nm	10
	min	lbin	7.4
	max	lbin	7.4
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		2/0
Power terminal protection according to IEC/EN 60529			IP00

Mechanical features

Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	6250

Conductor section				
	AWG/kcmil conductor section			
		max		2/0
Operations				
Mechanical life			cycles	10000000
Electrical life			cycles	1100000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1100000
		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	60
			max	ms	100
		Opening NO			
			min	ms	25
			max	ms	60
	in DC				
		Closing NO			
			min	ms	60
			max	ms	100
		Opening NO			
			min	ms	25
			max	ms	60
UL technical data					
Full-load current (FLA) for three-phase AC motor					
			at 480V	A	96
			at 600V	A	99
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	30
			220/230V	HP	40
			575/600V	HP	100
General USE					
	Contactor				
			AC current	A	160
Short-circuit protection fuse, 600V					
	Standard fault				
			Short circuit current	kA	5
			Fuse rating	A	500
			Fuse class		RK5
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					

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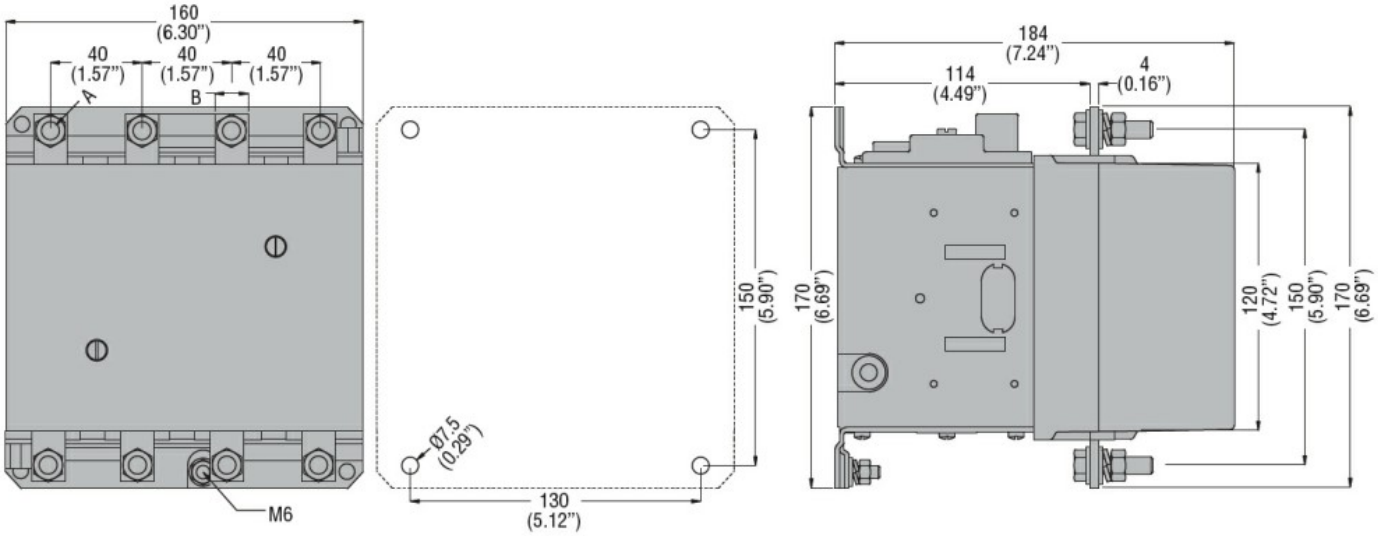
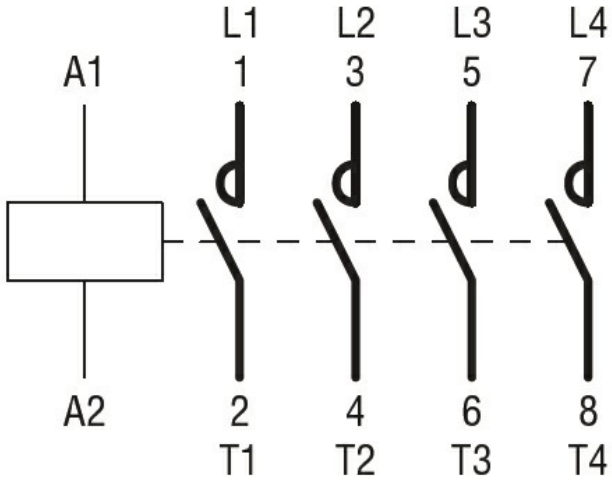


CONTACTOR TYPE	A	B
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

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