Lovato electric
ENERGY AND AUTOMATION

11B1454L00220220

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 250A, AC/DC COIL, ALREADY FITTED WITH MECHANICAL LATCH (G495), 220...240VAC/DC, MECHANICAL LATCH 220...240VAC

Product designation			Power contactor
Product type designation			B145
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	250
Operational current Ie			
	AC-1 (≤40°C)	A	250
	AC-1 (≤55°C)	A	235
	AC-1 (≤70°C)	A	190
	AC-3 (≤440V ≤55°C)	A	150
	AC-4 (400V)	A	57
Rated operational power AC-1 (T≤40°C)			
	230V	kW	91
	400V	kW	150
	500V	kW	196
	690V	kW	270
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	220
	110V	A	110
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	220
	110V	A	150
	220V	A	130
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	A	220
	110V	A	150
	220V	A	150
	330V	A	130
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	220
	110V	A	150
	220V	A	150
	330V	A	150
	460V	A	130

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	160
	110V	A	80
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	160
	110V	A	120
	220V	A	90
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	160
	110V	A	140
	220V	A	120
	330V	A	90
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	160
	110V	A	140
	220V	A	140
	330V	A	140
	460V	A	90
Short-time allowable current for 10s (IEC/EN60947-1)		A	1300
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1500
	500V	A	1400
	690V	A	1200
Resistance per pole (average value)		m?	0.3
Power dissipation per pole (average value)			
	Ith	W	14.5
	AC3	W	6.8
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	13.3
	max	lbin	13.3
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		4/0
Power terminal protection according to IEC/EN 60529			IP00

Mechanical features

Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	6980
Conductor section			
AWG/kcmil conductor section			
	max		4/0
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, 60Hz			
	min	V	220
	max	V	240
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			

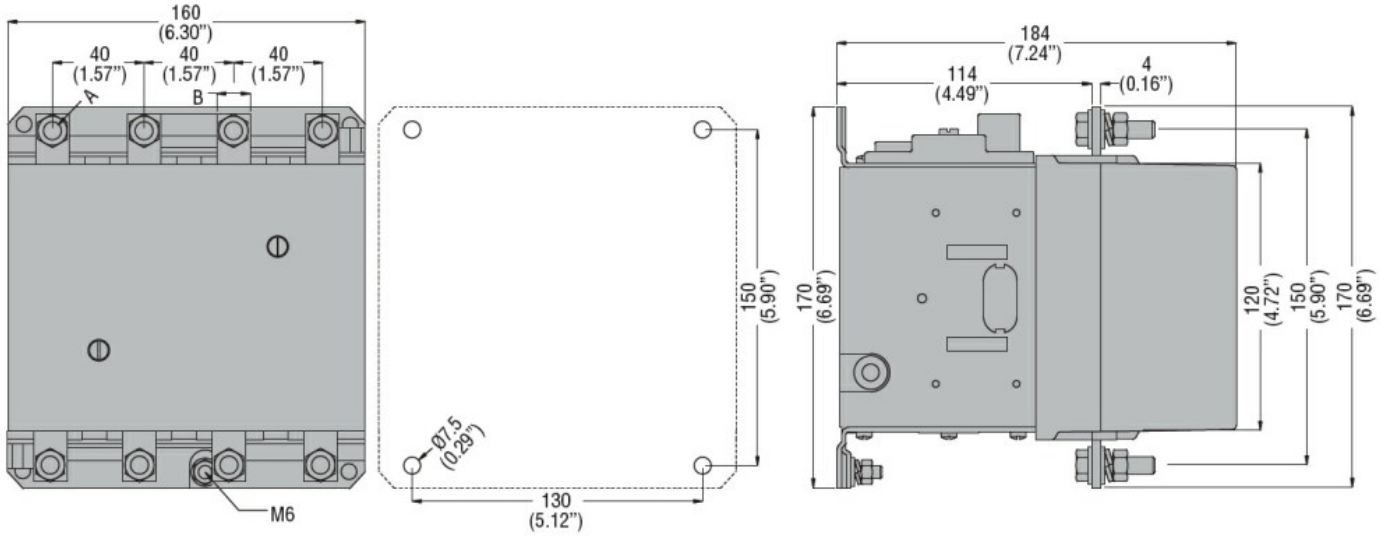
			min	V	220
			max	V	240
DC operating voltage					
	pick-up				
			min	%Us	80
			max	%Us	110
	drop-out				
			min	%Us	20
			max	%Us	60
Average coil consumption ≤20°C					
			in-rush	W	300
			holding	W	10
Max cycles frequency					
Mechanical operation				cycles/h	2400
Operating times					
Average time for 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	124
			at 600V	A	125
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	50
			220/230V	HP	50
			460/480V	HP	100
General USE					
	Contactor				
			AC current	A	250
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

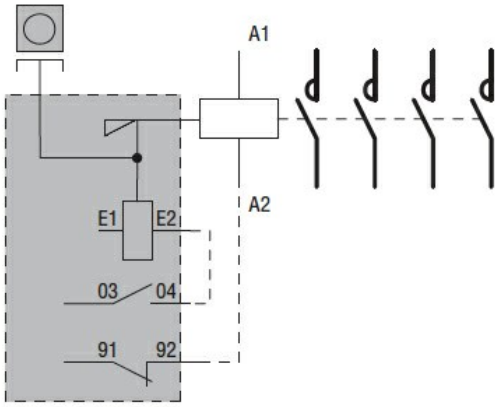
Pollution degree			3

Dimensions



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