Lovato electric
ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 95A, AC COIL 60HZ, 230VAC

Product designation			Power contactor
Product type designation			BF95
Contact characteristics			
Number of poles		Nr.	3
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	140
Operational current Ie			
	AC-1 (≤40°C)	A	140
	AC-1 (≤55°C)	A	115
	AC-1 (≤70°C)	A	100
	AC-3 (≤440V ≤55°C)	A	95
	AC-4 (400V)	A	45
Rated operational power AC-3 (T≤55°C)			
	230V	kW	30
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	90
	1000V	kW	45
Rated operational current AC-3 (T≤55°C)			
	230V	A	95
	400V	A	95
	415V	A	95
	440V	A	95
	500V	A	95
	690V	A	93
	1000V	A	33
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	140
	48V	A	140
	75V	A	100
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	140
	48V	A	140
	75V	A	140
	110V	A	110
	220V	A	12
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			

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	≤24V	A	140
	48V	A	140
	75V	A	155
	110V	A	120
	220V	A	125
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	140
	48V	A	140
	75V	A	155
	110V	A	140
	220V	A	140
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	140
	48V	A	44
	75V	A	36
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	140
	48V	A	63
	75V	A	60
	110V	A	55
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	140
	48V	A	115
	75V	A	90
	110V	A	85
	220V	A	76
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	140
	48V	A	110
	75V	A	110
	110V	A	105
	220V	A	95
Short-time allowable current for 10s (IEC/EN60947-1)		A	760
Protection fuse			
	gG (IEC)	A	160
	aM (IEC)	A	100
Making capacity (RMS value)		A	1200
Breaking capacity at voltage			
	440V	A	1100
	500V	A	775
	690V	A	745
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	8.8
	AC-3	W	4.1
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2

Tightening torque for coil terminal

	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.59
	max	Ibin	0.74

Conductor section

AWG/Kcmil

	max		2/0

Flexible w/o lug conductor section

	min	mm²	1.5
	max	mm²	70

Flexible c/w lug conductor section

	min	mm²	1.5
	max	mm²	70

Power terminal protection according to IEC/EN 60529		IP20 front

Mechanical features

Operating position

	normal	Vertical plan
	allowable	±30°

Fixing		Screw / DIN rail 35mm

Weight	g	2020

Conductor section

AWG/kcmil conductor section

	max	2/0

Auxiliary contact characteristics

Thermal current Ith	A	140

Operations

Mechanical life	cycles	15000000
Electrical life	cycles	1400000

AC coil operating

Rated AC voltage at 60Hz	V	230

AC operating voltage

of 50/60Hz coil powered at 50Hz

drop-out

	max	%Us	55

of 60Hz coil powered at 60Hz

pick-up

	min	%Us	80
	max	%Us	110

drop-out

	min	%Us	20
	max	%Us	55

AC average coil consumption at 20°C

of 60Hz coil powered at 60Hz

	in-rush	VA	300
	holding	VA	20

Dissipation at holding ≤20°C 50Hz	W	6.5

Max cycles frequency

Mechanical operation	cycles/h	1500

Operating times

Average time for Us control

in AC

Closing NO				
	min	ms	16	
	max	ms	32	
Opening NO				
	min	ms	9	
	max	ms	24	

UL technical data

Yielded mechanical performance				
for three-phase AC motor				
	200/208V	HP	30	
	220/230V	HP	30	
	460/480V	HP	60	
	575/600V	HP	75	

General USE				
Contactor				
	AC current	A	150	

Short-circuit protection fuse, 600V				
High fault				
	Short circuit current	kA	100	
	Fuse rating	A	200	
	Fuse class		J	
Standard fault				
	Short circuit current	kA	10	
	Fuse rating	A	250	
	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	

Dimensions
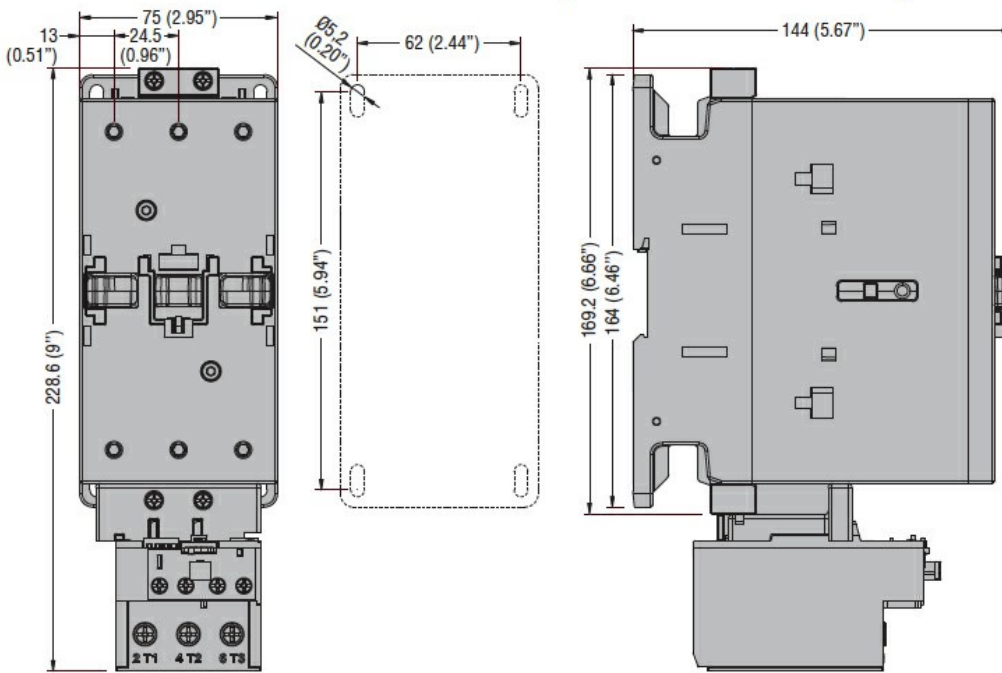
Wiring diagrams
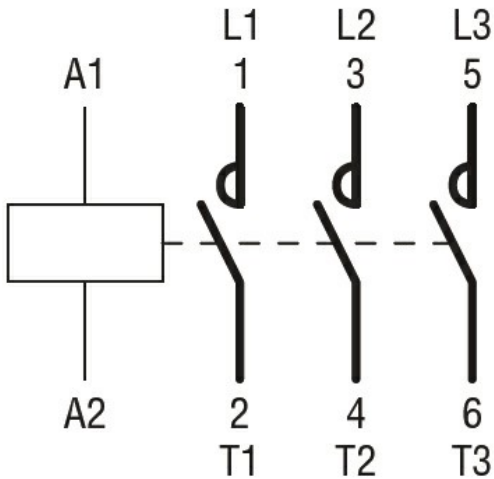
Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN/BS 60947-1
IEC/EN/BS 60947-4-1
UL 60947-1
UL 60947-4-1

Certificates

CCC
cULus

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching