



Product designation			
Product type designation	Power contactor BF80		
<b>Contact characteristics</b>			
Number of poles	nr.	3	
Rated insulation voltage $U_i$	V	1000	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Operating frequency	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
	Conventional free air thermal current $I_{th}$	A	115
Operating current	Operational current AC3 ( $\leq 440V \leq 55^\circ C$ )	A	80
	Operational current AC4 (400V)	A	38
	Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)	A	800	
Breaking capacity at voltage	Breaking capacity 440V	A	640
	Breaking capacity 500V	A	625
	Breaking capacity 690V	A	456
	Resistance per pole (average value)	m $\Omega$	0.6
Power dissipation per pole (average value)	Power dissipation pole (average value) $I_{th}$	W	7.9
	AC3	W	3.8
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	lbft	2.95
	max	lbft	3.69
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbft	0.59
	max	lbft	0.74
max number of wires simultaneously connectable	nr.	2	
Conductor section	AWG	min	18
		max	2
Flexible w/o lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
Power terminal protection according to IEC/EN 60529	IP20		

**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m	3,000
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Operating position

normal allowable	Vertical plan ±30°
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Mounting

Screw / DIN rail  
35mm

Weight

g	1
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**Operations**

Mechanical life

Cycles	15,000,000
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Electrical life

Cycles	1300000
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**Safety related data**

Mirror contacts according to IEC/EN 609474-4-1

Yes

EMC compatibility

Yes

**AC coil operating**

Rated AC voltage at 50/60Hz, 60Hz

min	V	12
max	V	600

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	55

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	85
max	%Us	110

drop-out

min	%Us	40
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 operating voltage

of 50/60Hz coil powered at 50Hz

in-rush	VA	210
holding	VA	15

of 50/60Hz coil powered at 60Hz

in-rush	VA	195
holding	VA	13

of 60Hz coil powered at 60Hz

	in-rush	VA	210
	holding	VA	15
Dissipation at holding ≤20°C 50Hz		W	5

**Max cycles frequency**

Mechanical operations	Cycles/h	3,600
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**Operating times**

Average time for Us control

in AC

Closing NO

min ms 12

max ms 28

Opening NO

min ms 8

max ms 22

in DC

Closing NO

min ms 40

max ms 85

Opening NO

min ms 20

max ms 55

**UL technical data**

Full-load current (FLA) for three-phase AC motor

at 480V A 77

at 600V A 77

Yielded mechanical performance

for three-phase AC motor

at 200/208V hp 25

at 220/230V hp 30

at 460/480V hp 60

at 575/600V hp 75

Contact rating of auxiliary contacts according to UL

SI - A600

General USE

Contactor

AC current A 32

Auxiliary contacts

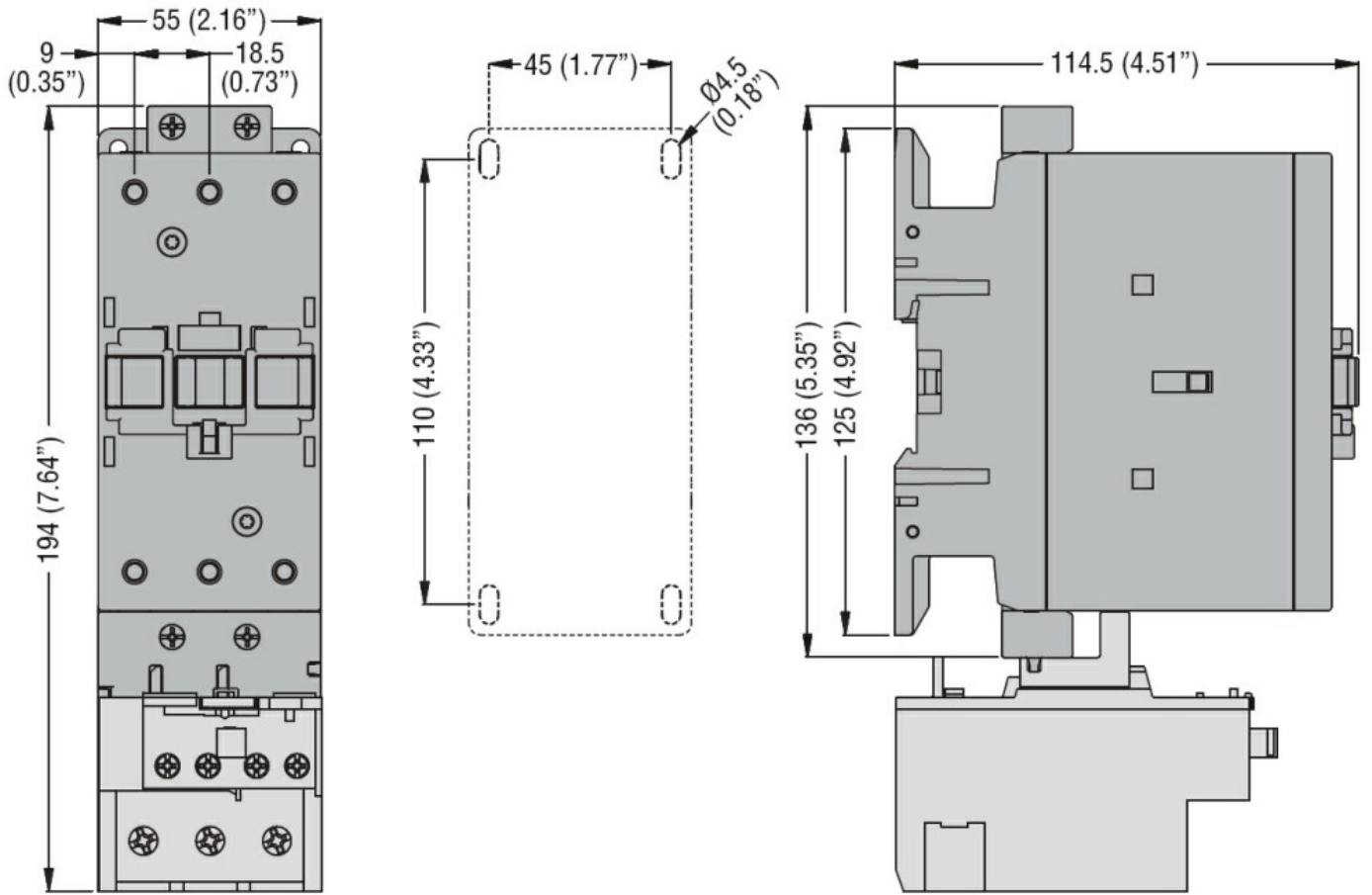
AC voltage V 600

AC current A 10

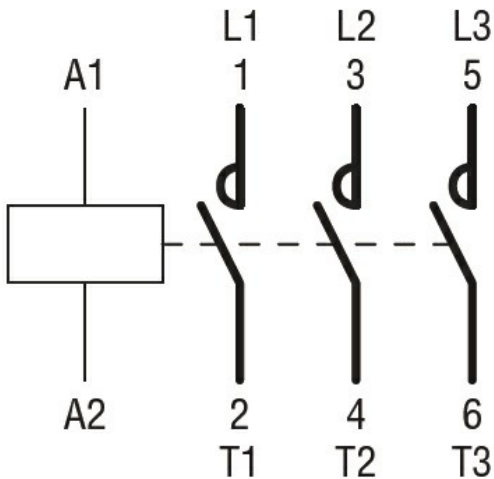
DC voltage V 250

DC current A 1

**Dimensions**



### Wiring diagrams



### Certifications and compliance

#### Certifications

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

#### Compliance

cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching