



Product designation				Power contactor
Product type designation				BF80
Contact characteristics				
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 Ω		
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	
max		Nm		5
min		lbft		2.95
max		lbft		3.69
Tightening torque for coil terminal		min	Nm	
	max	Nm		1
	min	lbft		0.59
	max	lbft		0.74
	max number of wires simultaneously connectable	nr.		
Conductor section	AWG	min		18
		max		2
		Flexible w/o lug conductor section	min	mm ²
max	mm ²			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
---	-------

Operating position

normal allowable	Vertical plan ±30°
------------------	--------------------

Mounting

Screw / DIN rail
35mm

Weight

g	1
---	---

Operations

Mechanical life

Cycles	15,000,000
--------	------------

Electrical life

Cycles	1300000
--------	---------

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
-----------------------	----------	-------

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

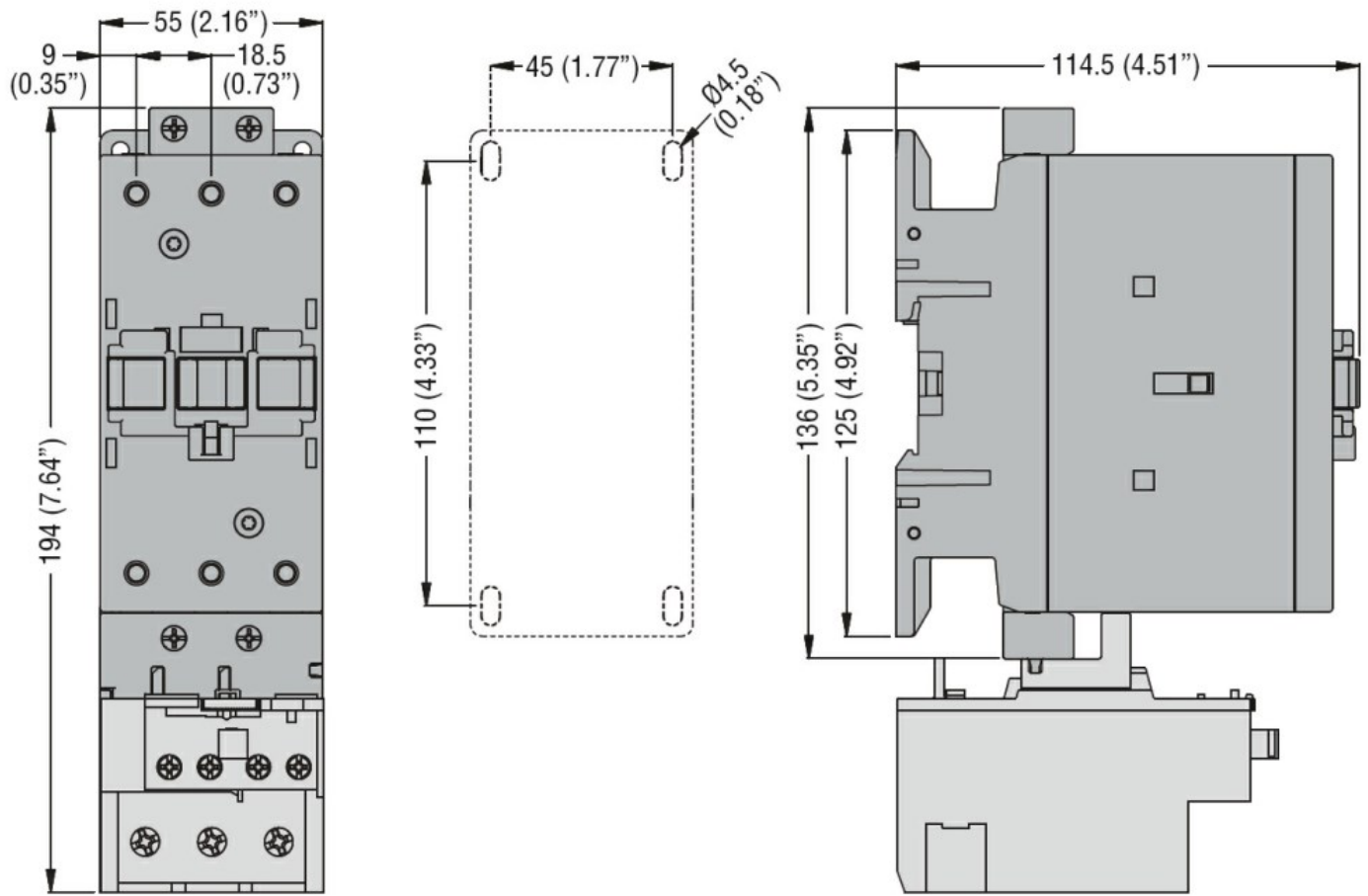
AC voltage V 600

AC current A 10

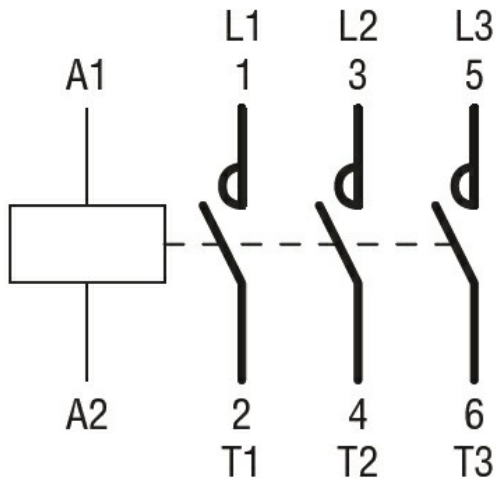
DC voltage V 250

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