



Power contactor
BF65

Product designation

Product type designation

Contact characteristics

Number of poles	nr.	4
Rated insulation voltage U _i IEC/EN	V	1000
Rated impulse withstand voltage U _{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I _{th}	A	100
Operational current I _e	AC-1 (≤40°C)	A 100
	AC-1 (≤55°C)	A 80
	AC-1 (≤70°C)	A 70
	AC-3 (≤440V ≤55°C)	A 65
	AC-4 (400V)	A 31
Rated operational power AC-1 (T≤40°C)	230V	kW 38
	400V	kW 65
	500V	kW 82
	690V	kW 114
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 50
	48V	A 50
	75V	A 50
	110V	A 8
	220V	A –
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 70
	48V	A 70
	75V	A 70
	110V	A 60
	220V	A 9
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A 70
	48V	A 70
	75V	A 70
	110V	A 60
	220V	A 90
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A 70
	48V	A 70
	75V	A 70
	110V	A 70
	220V	A 110

IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	35
	48V	A	25
	75V	A	25
	110V	A	3
	220V	A	–
	IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A
48V		A	40
75V		A	40
110V		A	30
220V		A	5
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series		≤24V	A
	48V	A	50
	75V	A	50
	110V	A	35
	220V	A	52
	IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A
48V		A	60
75V		A	60
110V		A	50
220V		A	65
Short-time allowable current for 10s (IEC/EN60947-1)			A
Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)		A	650
Breaking capacity at voltage	440V	A	520
	500V	A	425
	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	I _{th}	W	8
	AC3	W	3.4
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
Max number of wires simultaneously connectable		nr.	2
Conductor section	Flexible w/o lug conductor section		
	min	mm ²	1.5
	max	mm ²	35
	Flexible c/w lug conductor section		

	min	mm ²	1.5
	max	mm ²	35
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1240
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles	1400000
		cycles	15000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	230
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	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
AC operating voltage at 20°C			
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 operation		cycles/h	3600
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
<hr/>				
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	65
	at 600V	A	62

Yielded mechanical performance for three-phase AC motor	200/208V	HP	20
	220/230V	HP	25
	460/480V	HP	50
	575/600V	HP	60

General USE	Contactor	AC current	A	100
-------------	-----------	------------	---	-----

Ambient conditions

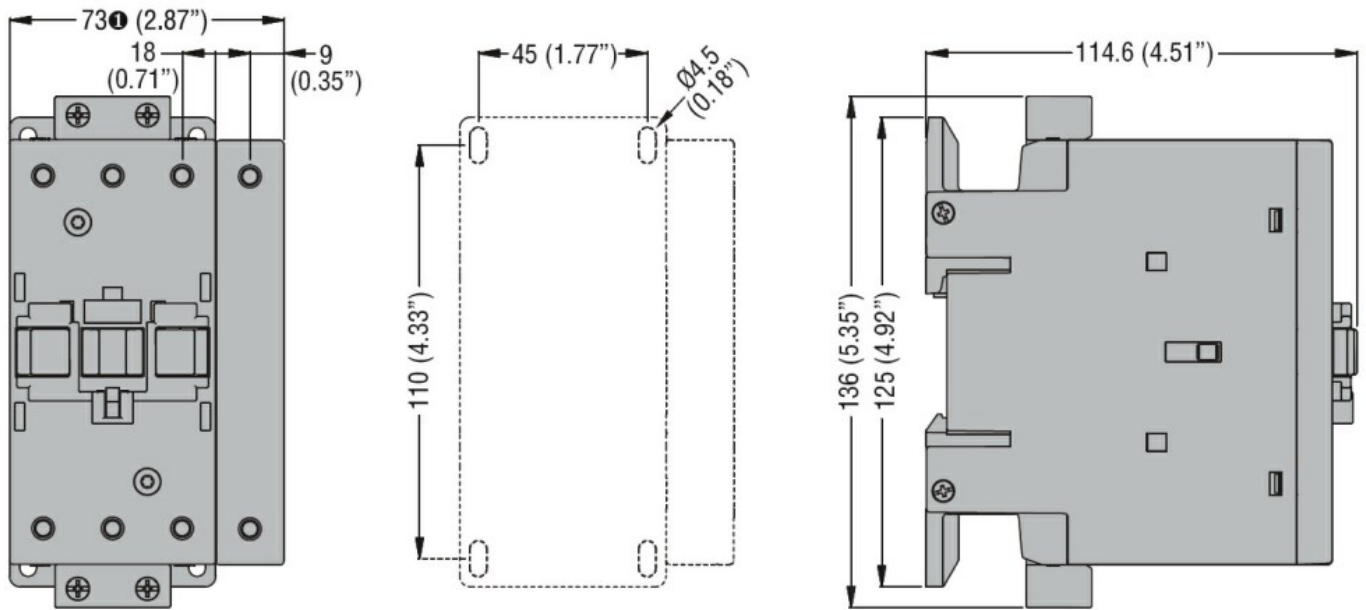
Temperature	Operating temperature	min	°C	-50
		max	°C	70
	Storage temperature	min	°C	-60
		max	°C	80

Max altitude	m	3000
--------------	---	------

Resistance & Protection

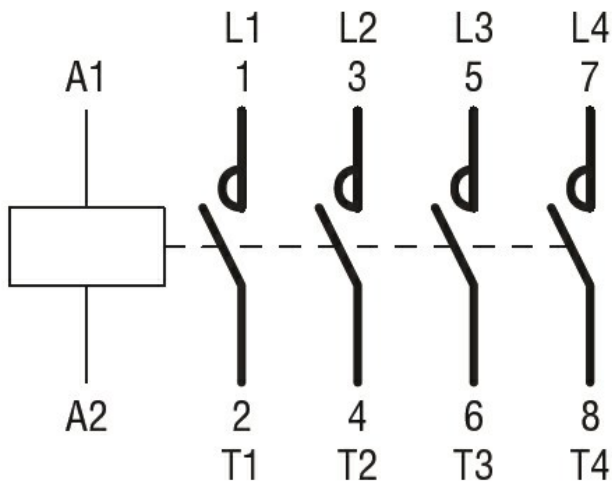
Pollution degree	3
------------------	---

Dimensions



① BF80T2 82mm/3.23"

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

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching