



Product designation				Power contactor
Product type designation				BF65
<b>Contact characteristics</b>				
Number of poles	nr.	3		
Rated insulation voltage U <sub>i</sub> IEC/EN	V	1000		
Rated impulse withstand voltage U <sub>imp</sub>	kV	8		
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A	100		
Operational current I <sub>e</sub>	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-3 (T≤55°C)	230V	kW	18.5	
	400V	kW	30	
	415V	kW	37	
	440V	kW	37	
	500V	kW	37	
	690V	kW	45	
	1000V	kW	30	
IEC max current I <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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
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IEC max current I <sub>e</sub> 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	–
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	45
	48V	A	40
	75V	A	40
	110V	A	30
	220V	A	5
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	55
	48V	A	50
	75V	A	50
	110V	A	35
	220V	A	52
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	A	65
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Short-time allowable current for 10s (IEC/EN60947-1)		A	640
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Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	80
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Making capacity (RMS value)		A	650
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Breaking capacity at voltage	440V	A	520
	500V	A	425
	690V	A	376
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Resistance per pole (average value)		mΩ	0.8
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Power dissipation per pole (average value)	I <sub>th</sub>	W	8
	AC3	W	3.4
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Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
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Max number of wires simultaneously connectable		nr.	2
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Conductor section	Flexible w/o lug conductor section		

	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
Flexible c/w 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 front
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1020
<b>Operations</b>			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1400000
	mechanical load	cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			Yes
<b>AC coil operating</b>			
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
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
Average time for Us control in AC			

Closing NO	min	ms	12
	max	ms	28
Opening NO	min	ms	8
	max	ms	22

**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
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**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

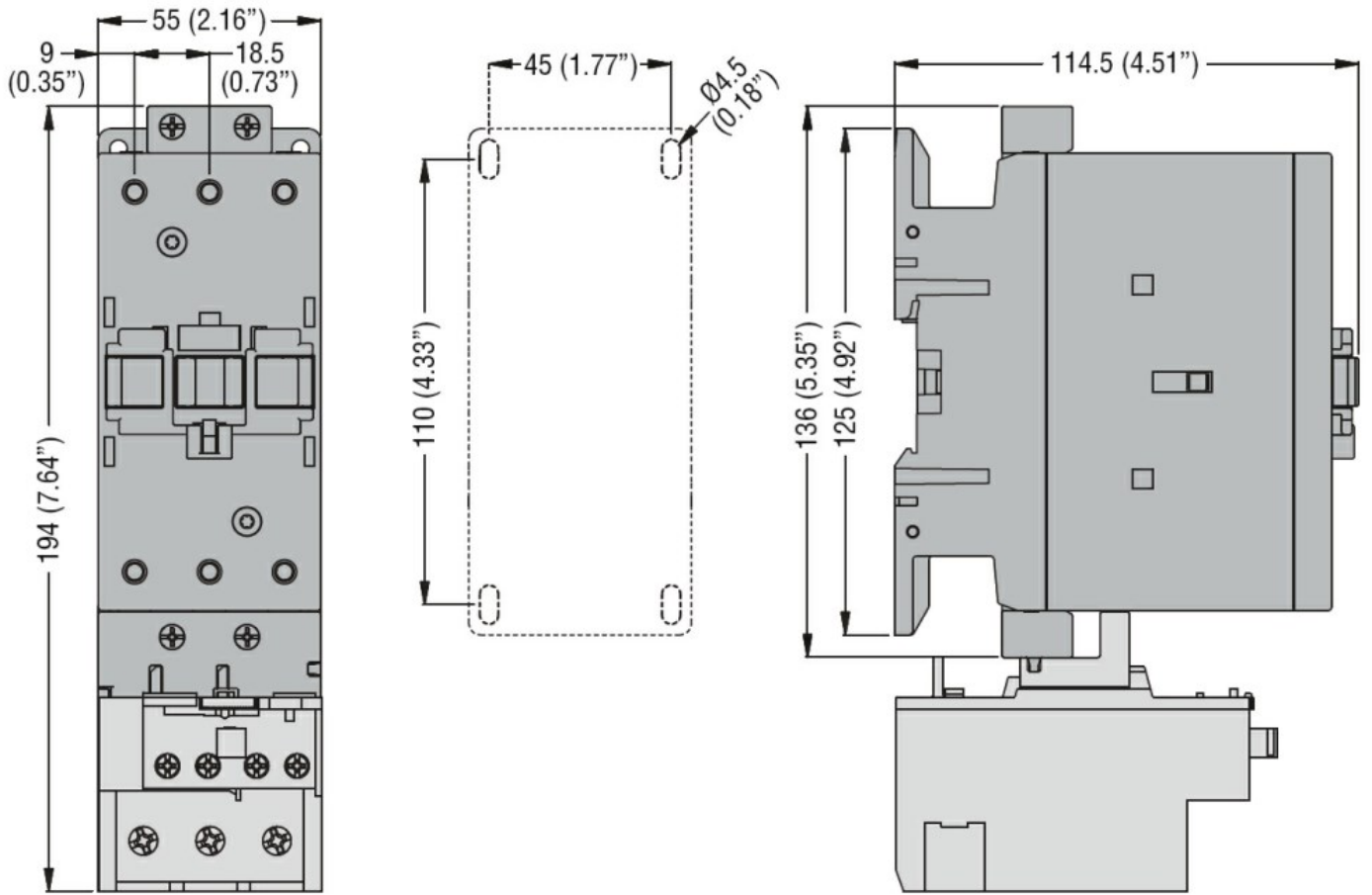
m	3000
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**Resistance & Protection**

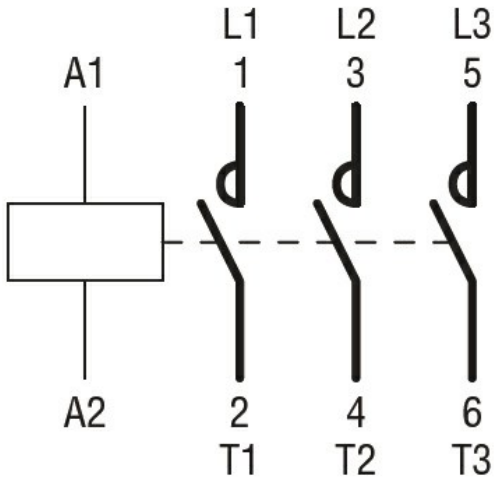
Pollution degree

3

**Dimensions**



### 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

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cULus

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching