



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
Rated operational current AC-3 (T≤55°C)	230V	A	65
	400V	A	65
	415V	A	65
	440V	A	65
	500V	A	53
	690V	A	47
	1000V	A	25
Rated operational power AC-1 (T≤40°C)	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
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
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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
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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
	AC-3	W	3.4
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Tightening torque for terminals			

	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	Ibin	3.69
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Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	0.74
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Max number of wires simultaneously connectable			Nr. 2
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Conductor section			
AWG/Kcmil			
	max		2
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Flexible w/o lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
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Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
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Power terminal protection according to IEC/EN 60529			IP20 front
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<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
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Fixing			Screw / DIN rail 35mm
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Weight			g 1020
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<b>Operations</b>			
Mechanical life			cycles 15000000
Electrical life			cycles 1400000
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<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1400000
	mechanical load	cycles	15000000
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EMC compatibility			yes
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<b>AC coil operating</b>			
Rated AC voltage at 60Hz			V 220
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AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
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drop-out			
	min	%Us	20
	max	%Us	55
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AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	210
	holding	VA	15
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Dissipation at holding ≤20°C 50Hz			W 5
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<b>Max cycles frequency</b>			
Mechanical operation			cycles/h 3600
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<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

in DC

Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55

**UL technical data**

Rated operational voltage AC (UL) V 600

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

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	200
Fuse class		RK5

**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

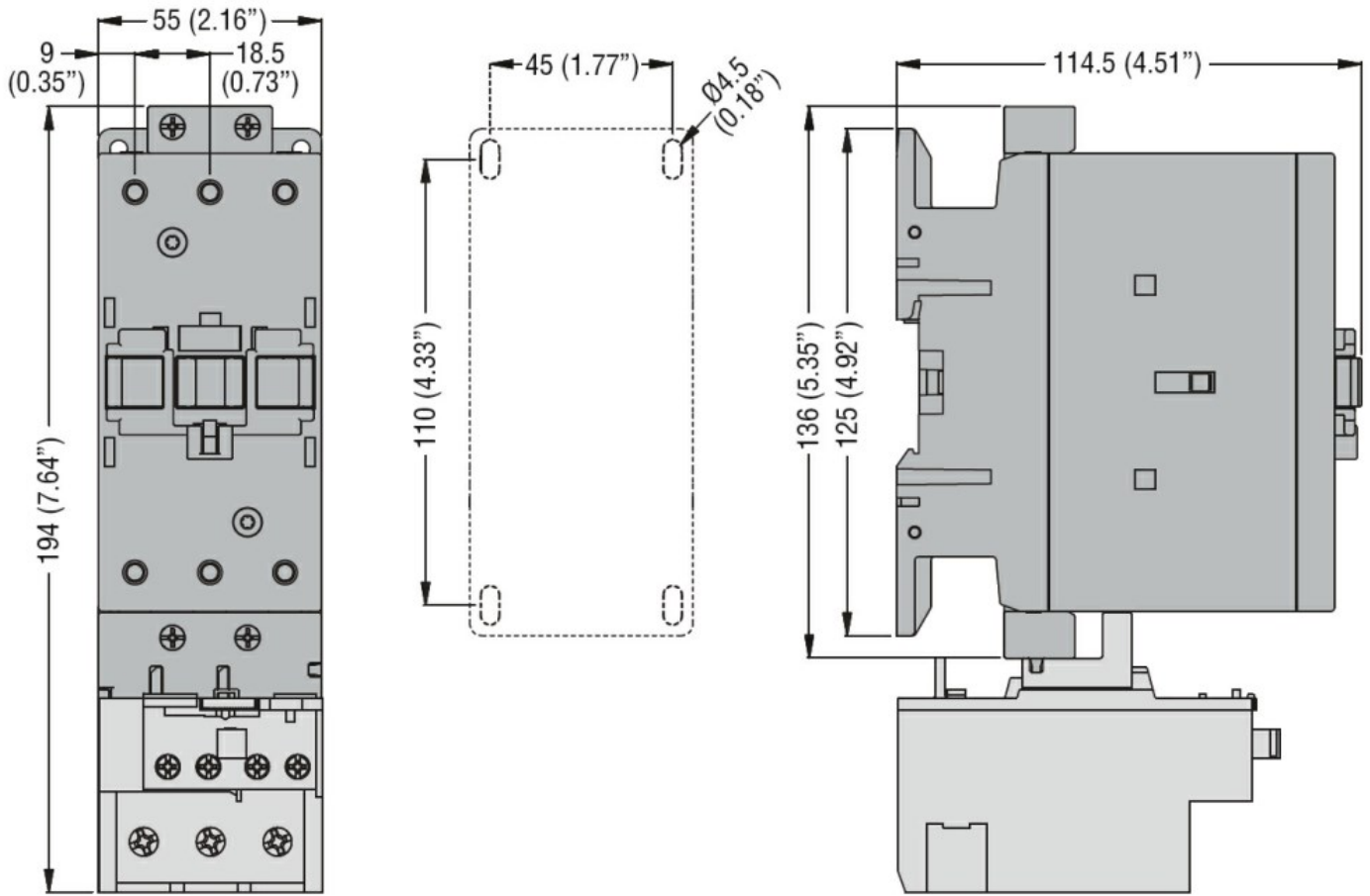
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**Resistance & Protection**

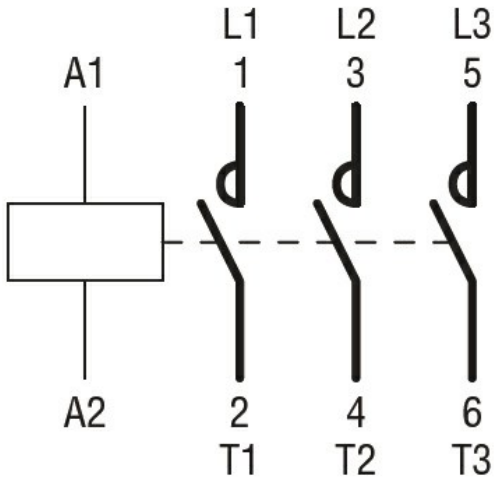
Pollution degree

3

**Dimensions**



### Wiring diagrams



### Certifications and compliance

#### Compliance

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