



Product designation	Power contactor		
Product type designation	BF65		
<b>Contact characteristics</b>			
Number of poles	Nr.	3	
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 ( $\leq 40^\circ C$ )	A	100
	AC-1 ( $\leq 55^\circ C$ )	A	80
	AC-1 ( $\leq 70^\circ C$ )	A	70
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A	65
	AC-4 (400V)	A	31
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	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 ( $T \leq 55^\circ C$ )	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 ( $T \leq 40^\circ C$ )	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A	50
	48V	A	50
	75V	A	50
	110V	A	8
	220V	A	—
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A	70

	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current le 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 le 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 le 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 le 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
IEC max current le 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
IEC max current le 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
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	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 <sub>th</sub>	W	8
	AC-3	W	3.4
Tightening torque for terminals			

	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		2
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
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g	1020	
Operations			
Mechanical life	cycles	15000000	
Electrical life	cycles	1400000	
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1400000
	mechanical load	cycles	15000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 60Hz	V	230	
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
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
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

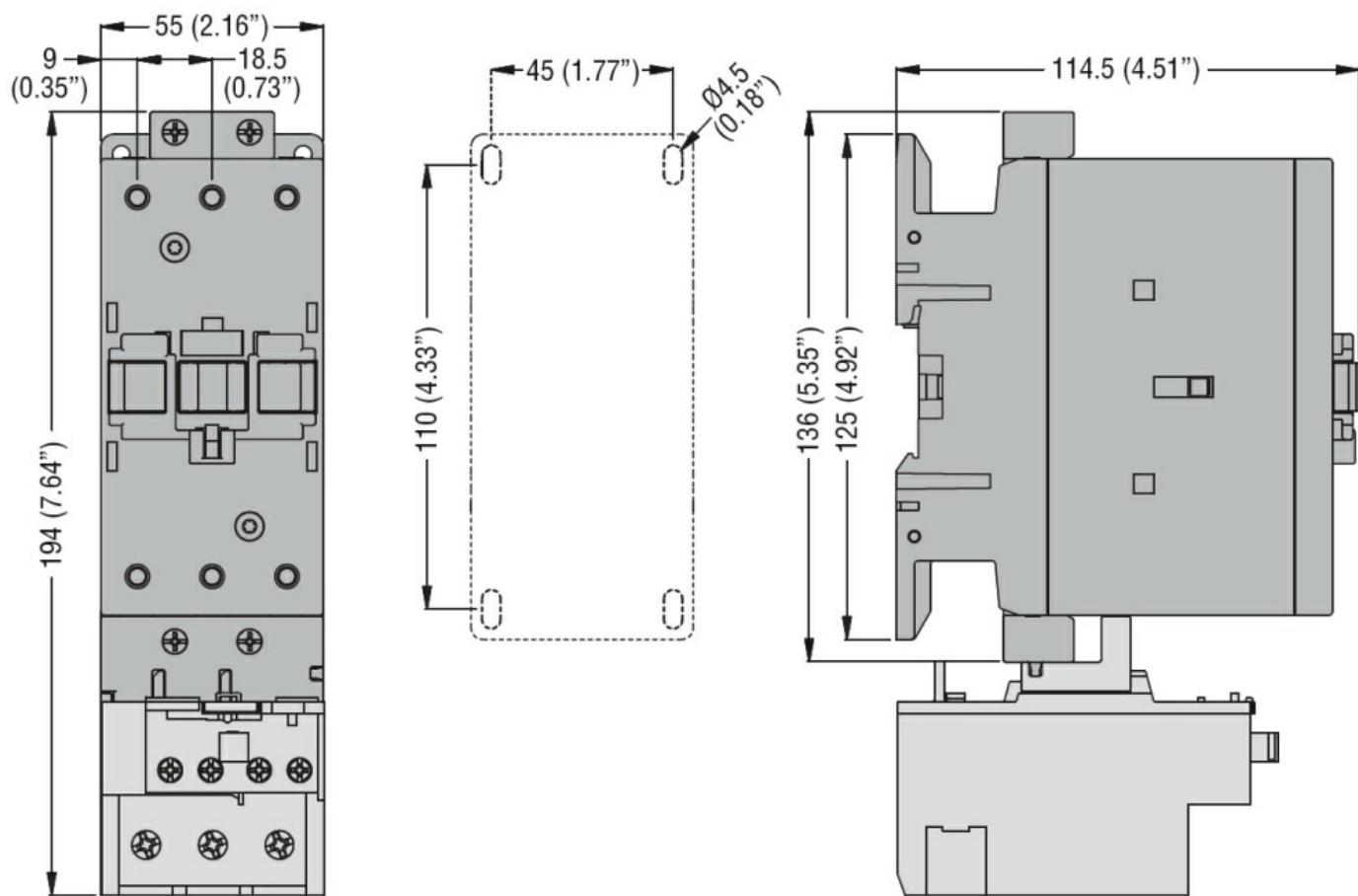
Storage temperature	min	°C	-60
	max	°C	80

Max altitude m 3000

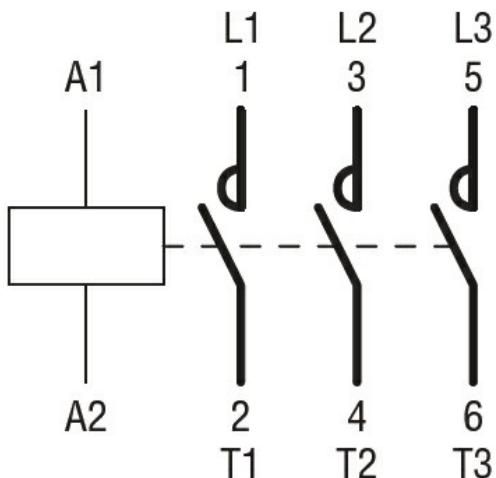
Resistance &amp; Protection

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