



Product designation	Power contactor		
Product type designation	BF65		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	100
Operational current Ie			
	AC-1 ($\leq 40^{\circ}\text{C}$)	A	100
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	80
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	70
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	65
	AC-4 (400V)	A	31
Rated operational power AC-1 ($T \leq 40^{\circ}\text{C}$)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	50
	48V	A	50
	75V	A	50
	110V	A	8
	220V	A	—
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	90
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	70
	48V	A	70
	75V	A	70
	110V	A	70
	220V	A	110

IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ with 1 poles in series

$\leq 24V$	A	35
48V	A	25
75V	A	25
110V	A	3
220V	A	—

IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ with 2 poles in series

$\leq 24V$	A	45
48V	A	40
75V	A	40
110V	A	30
220V	A	5

IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ with 3 poles in series

$\leq 24V$	A	55
48V	A	50
75V	A	50
110V	A	35
220V	A	52

IEC max current I_e in DC3-DC5 with $L/R \leq 15ms$ with 4 poles in series

$\leq 24V$	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)

m? 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	lbin	0.8
max	lbin	0.74

Max number of wires simultaneously connectable

Nr. 2

Conductor section

AWG/Kcmil	max	2
Flexible w/o lug conductor section	min	mm ² 1.5

Flexible c/w lug conductor section	max	mm ²	35
	min	mm ²	1.5
	max	mm ²	35
Power terminal protection according to IEC/EN 60529	IP20 front		
Mechanical features			
Operating position	normal	Vertical plan ±30°	
Fixing	Screw / DIN rail 35mm		
Weight	g	1280	
Conductor section			
AWG/kcmil conductor section	max	2	
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
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	60
	max	V	110
Rated AC voltage at 50/60Hz	V 110		
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
of 50/60Hz coil powered at 60Hz			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz	in-rush	VA	35...120
	holding	VA	1.5...3.7
of 50/60Hz coil powered at 60Hz	in-rush	VA	35...120
	holding	VA	1.5...3.7
Dissipation at holding ≤20°C 50Hz	W	1...2.5	
DC coil operating			
DC rated control voltage	min	V	60

DC rated control voltage	max	V	110
DC operating voltage		V	110
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
Average coil consumption ≤20°C	in-rush	W	23...68
	holding	W	1.2...1,9
Max cycles frequency			
Mechanical operation		cycles/h	1500
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	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	-40
	max	°C	70

Storage temperature

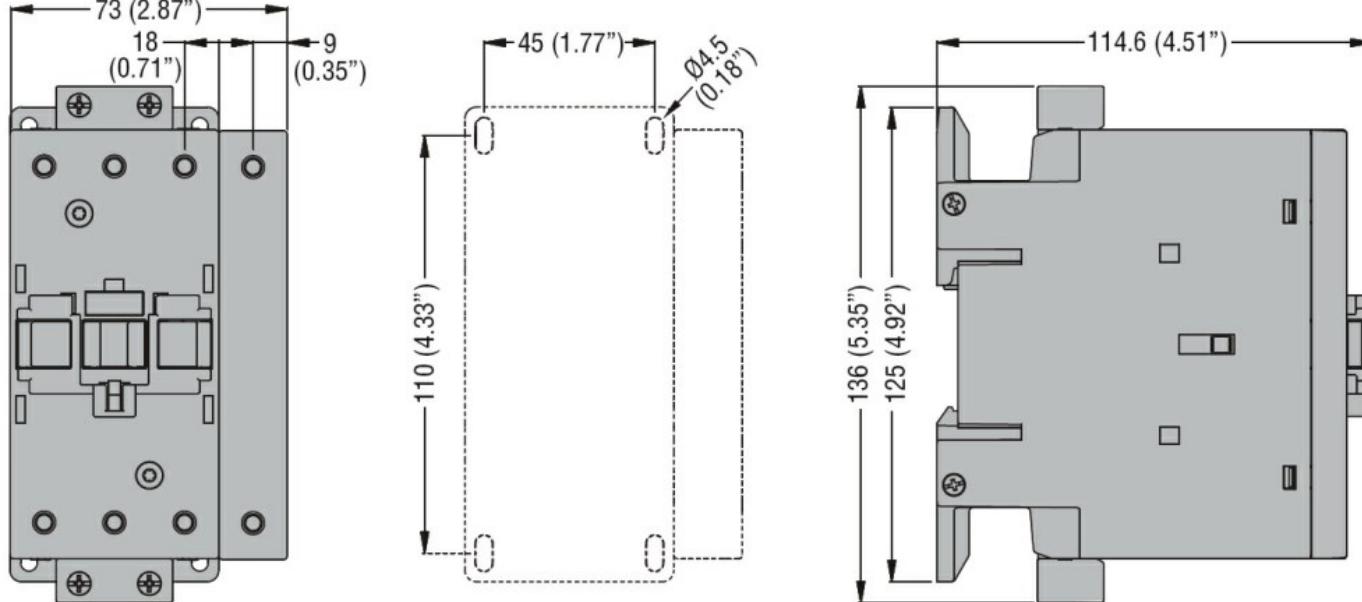
Max altitude	min	°C	-50
	max	°C	80

Max altitude	m	3000
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Resistance & Protection

Pollution degree	3
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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](#)

[cULus](#)

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching