



Product designation				Power contactor
Product type designation				BF65
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	45
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	55
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	60
48V	A	60
75V	A	60
110V	A	50
220V	A	65

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

Making capacity (RMS value)

A	650
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Breaking capacity at voltage

440V	A	520
500V	A	425
690V	A	376

Resistance per pole (average value)

m?	0.8
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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	I _{bin}	2.95
max	I _{bin}	3.69

Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	I _{bin}	0.8
max	I _{bin}	0.74

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 ²	1.5
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	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	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 mechanical load	cycles	1400000
		cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	20
	max	V	48
Rated AC voltage at 50/60Hz		V	24
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 holding	VA	35...120
		VA	1.5...3.7
	of 50/60Hz coil powered at 60Hz		
	in-rush holding	VA	35...120
		VA	1.5...3.7
Dissipation at holding =20°C 50Hz		W	1...2.5
DC coil operating			
DC rated control voltage	min	V	20

		max	V	48
DC rated control voltage			V	24
DC operating voltage				
	pick-up	min	%Us	85 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
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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms
	in DC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms

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			

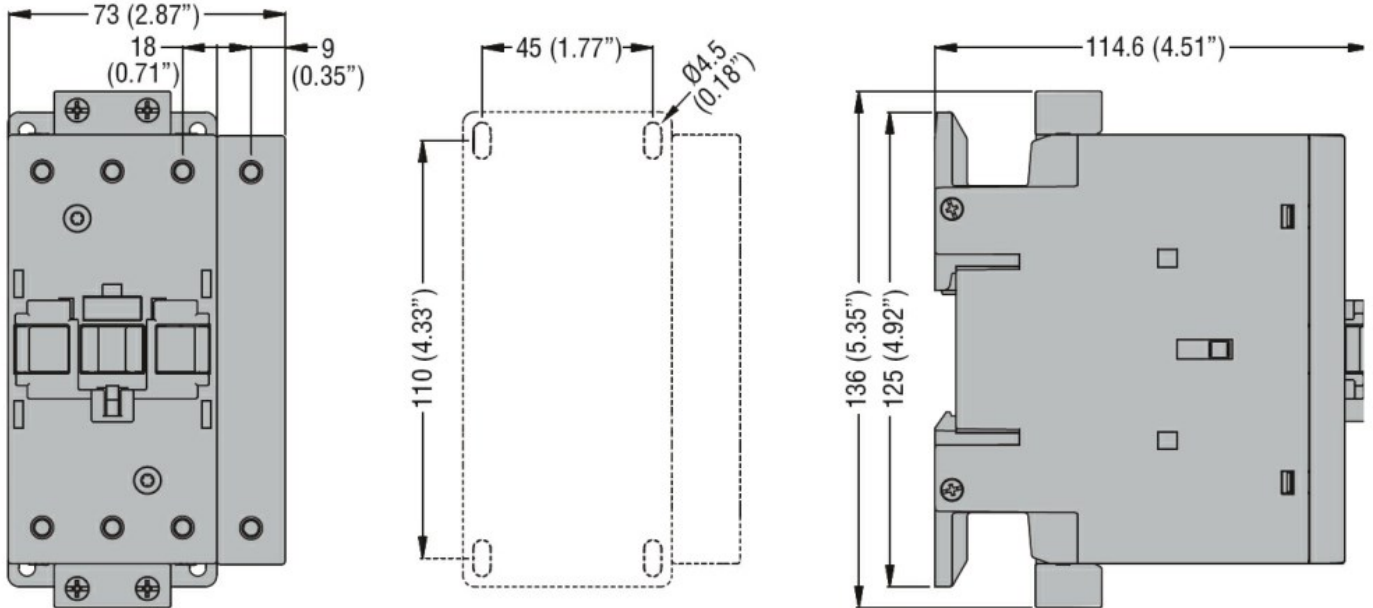
Storage temperature	min	°C	-40
	max	°C	70
Max altitude	min	°C	-50
	max	°C	80
		m	3000

Resistance & Protection

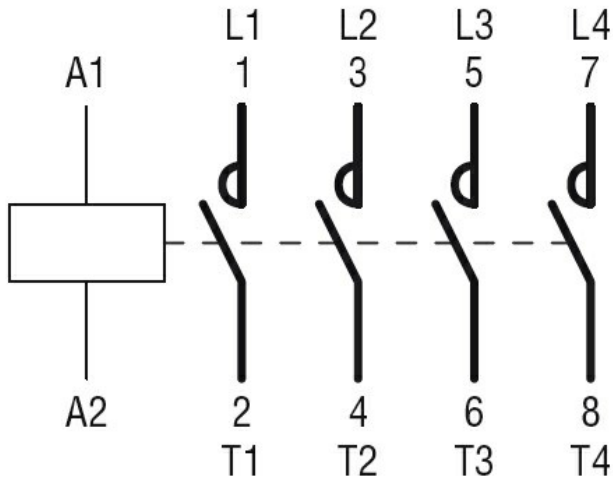
Pollution degree

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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/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching