



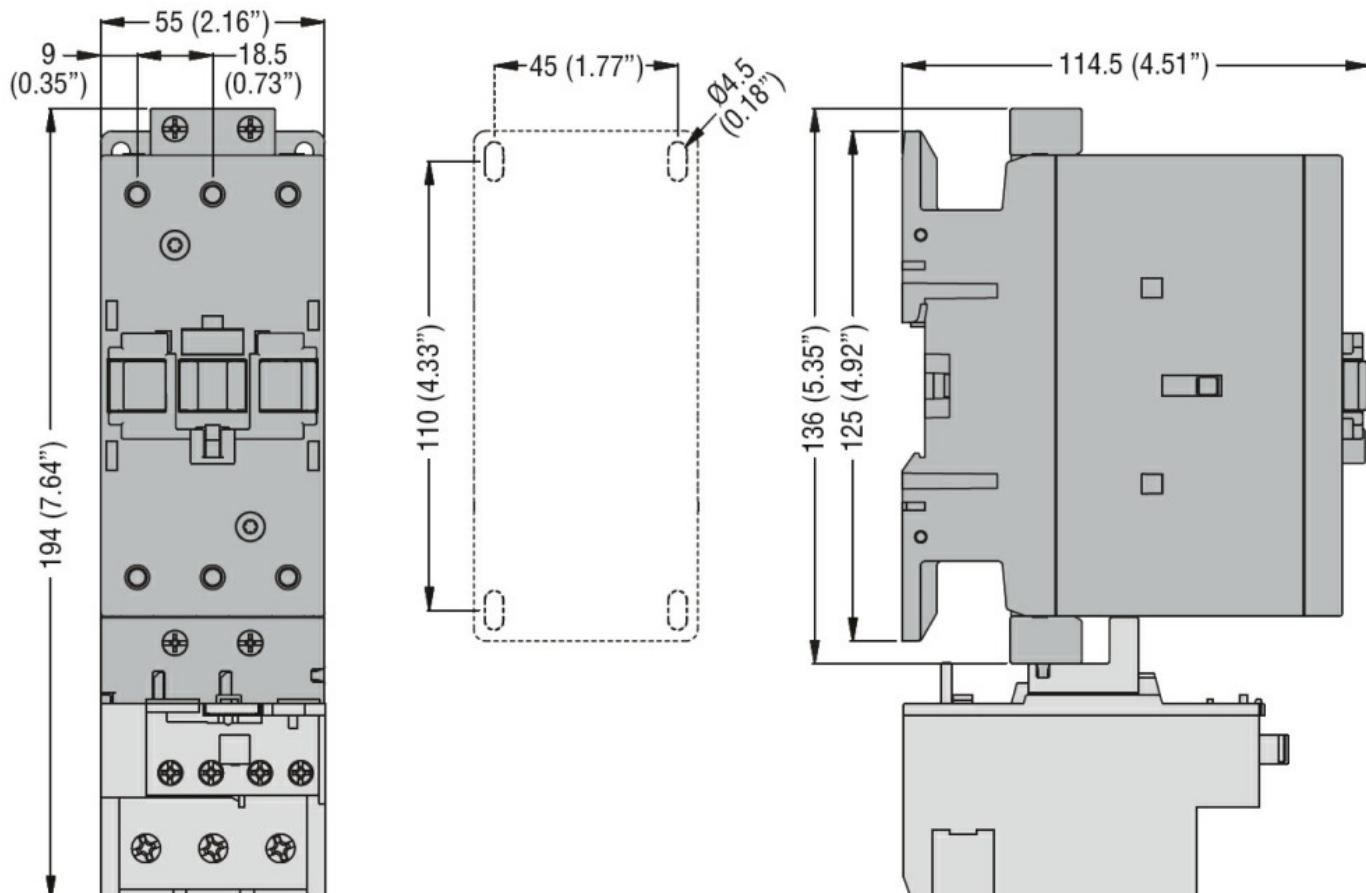
Product designation	Power contactor		
Product type designation	BF65		
Contact characteristics			
Number of poles	Nr.	3	
Rated insulation voltage U_i IEC/EN	V	1000	
Rated impulse withstand voltage U_{imp}	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I_{th}	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 _{th}	W	8
	AC-3	W	3.4
Tightening torque for terminals			

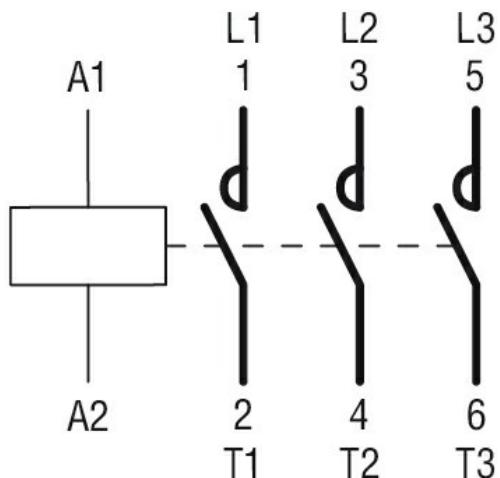
	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		2
Flexible w/o lug conductor section			
	min	mm ²	1.5
	max	mm ²	35
Flexible 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		1060
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 50/60Hz, 60Hz	min	V	60
	max	V	110
AC operating voltage			
of 50/60Hz coil powered at 50Hz 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
	max	V	110
DC operating voltage			
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			
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 -40
		max	°C 70
Storage temperature		min	°C -50
		max	°C 80
Max altitude			m 3000
Resistance & Protection			
Pollution degree			
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