

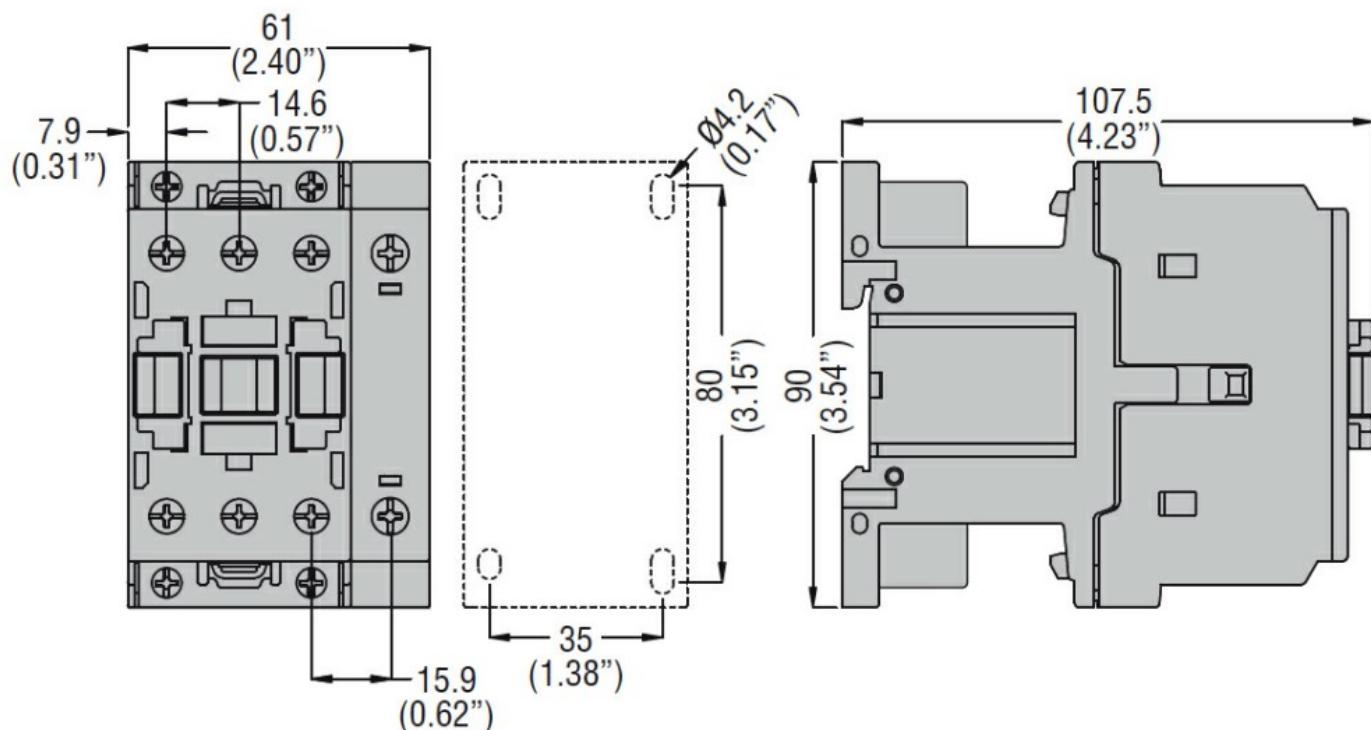


Product designation	Power contactor		
Product type designation	BF38		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage $Uimp$	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	56
Operational current le			
AC-1 ($\leq 40^\circ C$)	A	56	
AC-1 ($\leq 40^\circ C$) with 16mm ² wire and fork end lug	A	60	
AC-1 ($\leq 55^\circ C$)	A	45	
AC-1 ($\leq 55^\circ C$) with 16mm ² wire and fork end lug	A	48	
AC-1 ($\leq 70^\circ C$)	A	40	
AC-1 ($\leq 70^\circ C$) with 16mm ² wire and fork end lug	A	42	
AC-3 ($\leq 440V \leq 55^\circ C$)	A	38	
AC-4 (400V)	A	15.5	
Rated operational power AC-1 ($T \leq 40^\circ C$)			
230V	kW	21	
400V	kW	36	
500V	kW	45	
690V	kW	62	
IEC max current le in DC1 with $L/R \leq 1ms$ with 1 poles in series			
$\leq 24V$	A	35	
48V	A	30	
75V	A	23	
110V	A	8	
220V	A	—	
IEC max current le in DC1 with $L/R \leq 1ms$ with 2 poles in series			
$\leq 24V$	A	36	
48V	A	34	
75V	A	29	
110V	A	32	
220V	A	4	
IEC max current le in DC1 with $L/R \leq 1ms$ with 3 poles in series			
$\leq 24V$	A	36	
48V	A	34	
75V	A	33	
110V	A	34	
220V	A	30	
IEC max current le in DC1 with $L/R \leq 1ms$ with 4 poles in series			
$\leq 24V$	A	36	
48V	A	34	

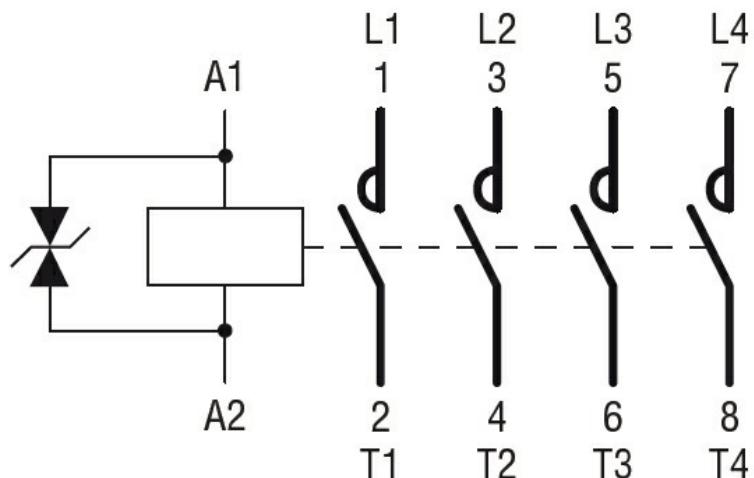
	75V	A	33
	110V	A	34
	220V	A	38
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	24
	48V	A	20
	75V	A	17
	110V	A	2,5
	220V	A	—
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	28
	48V	A	25
	75V	A	22
	110V	A	18
	220V	A	3
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	25
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	15
Short-time allowable current for 10s (IEC/EN60947-1)			A 320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	40
Making capacity (RMS value)			A 380
Breaking capacity at voltage			
	440V	A	304
	500V	A	240
	690V	A	192
Resistance per pole (average value)			m? 2
Power dissipation per pole (average value)			
	I _{th}	W	6
	AC3	W	2.9
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	lbin	1.8
	max	lbin	2.2
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	6
Flexible w/o lug conductor section		min	mm ² 2.5
		max	mm ² 16
Flexible c/w lug conductor section		min	mm ² 1
		max	mm ² 10
Flexible with insulated spade lug conductor section		min	mm ² 1
		max	mm ² 10
Power terminal protection according to IEC/EN 60529			IP20 when wired
Mechanical features			
Operating position	normal	allowable	Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g	670	
Conductor section			
AWG/kcmil conductor section		max	6
Operations			
Mechanical life	cycles	20000000	
Electrical life	cycles	1400000	
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	1400000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
DC coil operating			
DC rated control voltage	V	24	
DC operating voltage			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	10
	max	%Us	40
Average coil consumption ≤20°C	in-rush	W	2.4
	holding	W	2.4
Max cycles frequency			
Mechanical operation	cycles/h	3600	
Operating times			
Average time for Us control			
in AC			
Closing NO	min	ms	8
	max	ms	24
Opening NO	min	ms	5
	max	ms	15

in DC	Closing NC	min	ms	9
		max	ms	20
	Opening NC	min	ms	9
		max	ms	17
Yielded mechanical performance	Closing NO	min	ms	76
		max	ms	92
	Opening NO	min	ms	16
		max	ms	20
UL technical data				
Full-load current (FLA) for three-phase AC motor				
	at 480V	A	40	
	at 600V	A	32	
Yielded mechanical performance				
for single-phase AC motor	110/120V	HP	3	
	230V	HP	7.5	
for three-phase AC motor	200/208V	HP	10	
	220/230V	HP	15	
	460/480V	HP	30	
	575/600V	HP	30	
General USE				
Contactor				
	AC current	A	55	
Short-circuit protection fuse, 600V				
High fault	Short circuit current	kA	100	
	Fuse rating	A	100	
	Fuse class	J		
Standard fault	Short circuit current	kA	5	
	Fuse rating	A	150	
Ambient conditions				
Temperature				
Operating temperature	min	°C	-50	
	max	°C	70	
Storage temperature	min	°C	-60	
	max	°C	80	
Max altitude				
	m	3000		
Resistance & Protection				
Pollution degree				
Dimensions	3			



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

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching