



Product designation

Power contactor

Product type designation

BF32

Contact characteristics

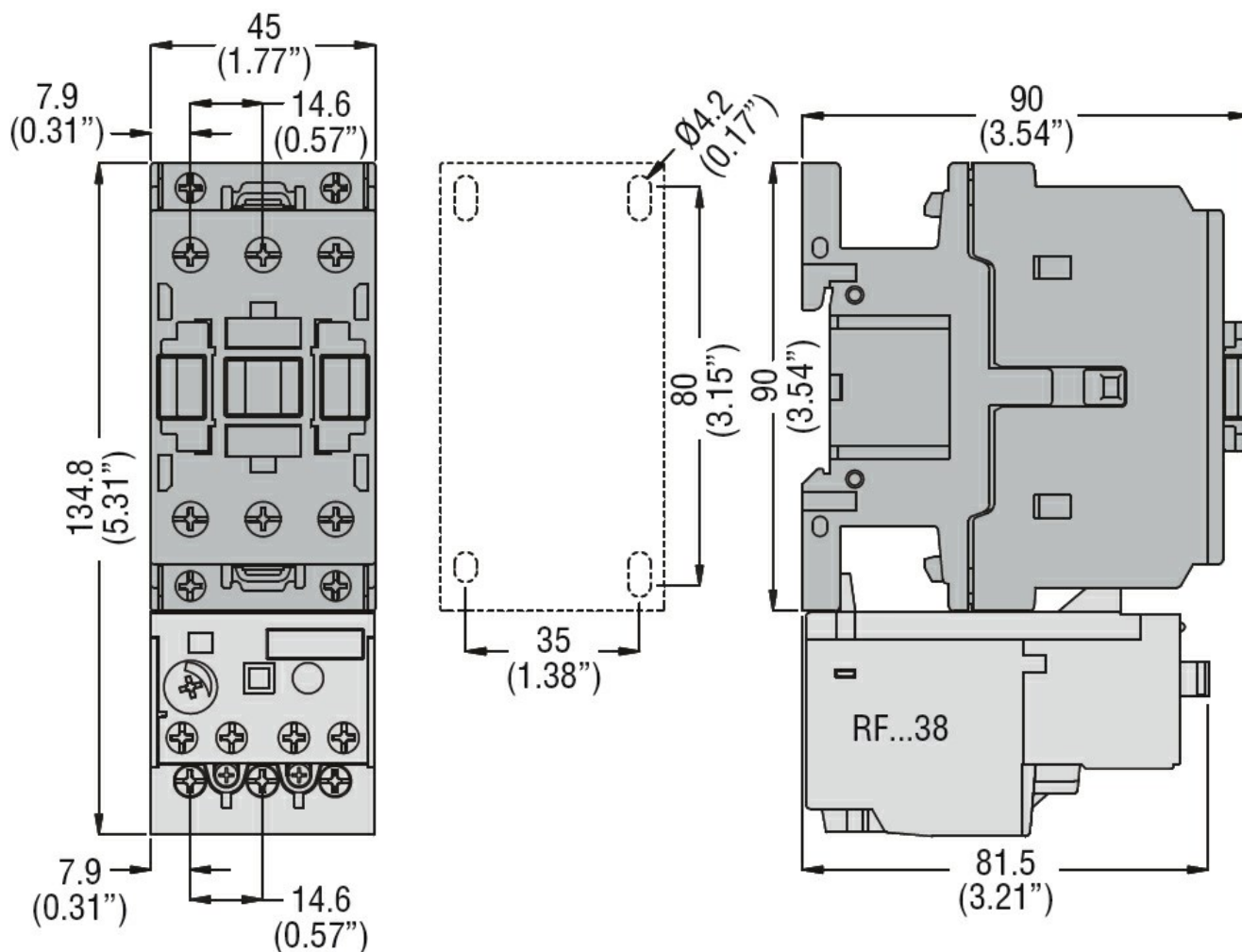
Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	56
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 56
	AC-1 ($\leq 55^\circ\text{C}$)	A 45
	AC-1 ($\leq 70^\circ\text{C}$)	A 40
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 32
	AC-4 (400V)	A 13.5
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 8.8
	400V	kW 16
	415V	kW 17
	440V	kW 17
	500V	kW 20
	690V	kW 22
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW 21
	400V	kW 36
	500V	kW 45
	690V	kW 62
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 30
	48V	A 26
	75V	A 22
	110V	A 8
	220V	A –
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A 32
	48V	A 32
	75V	A 28
	110V	A 25
	220V	A 3
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A 32
	48V	A 32
	75V	A 32
	110V	A 27

	220V	A	23
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	20
	48V	A	17
	75V	A	15
	110V	A	2,5
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	25
	48V	A	22
	75V	A	20
	110V	A	15
	220V	A	3
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	30
	48V	A	28
	75V	A	28
	110V	A	20
	220V	A	23
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
Short-time allowable current for 10s (IEC/EN60947-1)		A	320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	32
Making capacity (RMS value)		A	320
Breaking capacity at voltage			
	440V	A	256
	500V	A	240
	690V	A	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	Ith	W	6
	AC-3	W	2
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	Ibin	1.8
	max	Ibin	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8

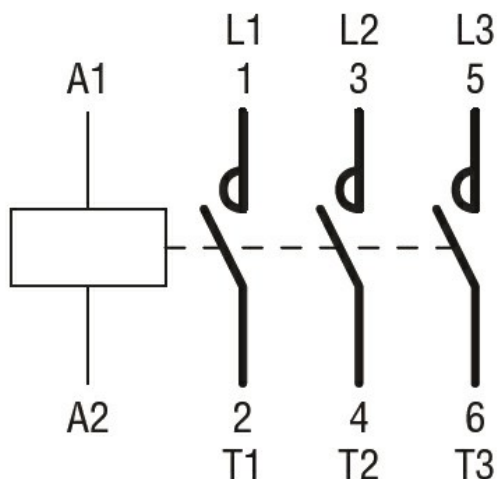
	max	I _{bin}	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		6
Flexible w/o lug conductor section	min	mm ²	2.5
	max	mm ²	16
Flexible c/w lug conductor section	min	mm ²	1
	max	mm ²	10
Flexible with insulated spade lug conductor section	min	mm ²	1
	max	mm ²	10
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	430
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	1600000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles	1600000
		cycles	20000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	48
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%U _s	80
	max	%U _s	110
drop-out	min	%U _s	20
	max	%U _s	55
of 50/60Hz coil powered at 60Hz			
pick-up	min	%U _s	85
	max	%U _s	110
drop-out	min	%U _s	20
	max	%U _s	55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz	in-rush holding	VA	75
		VA	9
of 50/60Hz coil powered at 60Hz	in-rush	VA	70

		holding	VA	6.5
of 60Hz coil powered at 60Hz				
		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20°C 50Hz			W	2.5
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
Closing NC		min	ms	9
		max	ms	20
Opening NC		min	ms	9
		max	ms	17
UL technical data				
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	27
		at 600V	A	27
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	10
		460/480V	HP	20
		575/600V	HP	25
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	125
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			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

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching