



Normation of poles   Normat	Product designation Product type designation			Power contactor BF32
Rated insulation voltage Ui IEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           IEC Conventional free air thermal current Ith         A 56         AC-0           Operational current Ie         AC-1 (≤40°C)         A 56           AC-1 (≤55°C)         A 45         AC-1 (≤70°C)         A 40           AC-3 (≤440∨ ≤55°C)         A 32         AC-4 (400V)         A 13.5           Rated operational power AC-3 (T≤55°C)         230V         kW         8.8           400V         kW         16         415V         kW         17           440V         kW         16         415V         kW         20         690V         kW         20         690V         kW         22         20         690V         kW         22         20         40V         kW         20         40V         kW         20         690V         kW         22         20         40V         kW         24         40V         kW         24         40V         kW         24         40V         kW         25         22V         A         30         48V         A         26	Contact characteristics			
Rated impulse withstand voltage Uimp	Number of poles		Nr.	3
Department   Frequency   Min   Hz   25 max   Hz   400     EC Conventional free air thermal current lth	Rated insulation voltage Ui IEC/EN		V	690
Min	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current Ith	Operational frequency			_
EC Conventional free air thermal current lth		min	Hz	25
Operational current le         AC-1 (≤40°C) A 56         AC-1 (≤55°C) A 45         AC-1 (≤70°C) A 40         AC-3 (≤440V ≤55°C) A 32         AC-4 (400V) A 13.5         Rated operational power AC-3 (T≤55°C)         230V kW 8.8         400V kW 16         415V kW 17         500V kW 20         690V kW 22         Rated operational power AC-1 (T≤40°C)         230V kW 21         40V kW 36         500V kW 36         500V kW 36         690V kW 62         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         ≤24V A 30         48V A 26         75V A 28         110V A 25         220V A 3         IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series         ≤24V A 32         75V A 28         110V A 25         220V A 3         IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series          ≤24V A 32         48V A 32         75V A 32		max	Hz	400
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	56
AC-1 (≤55°C)	Operational current le			
AC-1 (≤70°C) A 40 AC-3 (≤440V ≤55°C) A 32 AC-4 (400V) A 13.5  Rated operational power AC-3 (T≤55°C)  230V kW 8.8 400V kW 16 415V kW 17 500V kW 20 690V kW 22  Rated operational power AC-1 (T≤40°C)  230V kW 21 440V kW 17 500V kW 22  Rated operational power AC-1 (T≤40°C)  230V kW 21 440V kW 36 500V kW 45 690V kW 62  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 30 48V A 26 75V A 22 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 32 110V A 8 220V A 32 110V A 25 220V A 3  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤40°C)	Α	56
AC-3 (≤440V ≤55°C) A 32 AC-4 (400V) A 13.5  Rated operational power AC-3 (T≤55°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≤40°C)  230V kW 21 400V kW 36 500V kW 36 500V kW 36 500V kW 45 690V kW 62  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 30 48V A 26 75V A 22 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 32 48V A 32 75V A 28 110V A 25 220V A 3  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 32 48V A 32 75V A 28 110V A 25 220V A 3  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	45
AC-4 (400V)		AC-1 (≤70°C)	Α	40
Rated operational power AC-3 (T≤55°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≤40°C)  230V kW 21 400V kW 36 500V kW 45 690V kW 62  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 30 48V A 26 75V A 22 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 32 48V A 32		AC-3 (≤440V ≤55°C)	Α	32
230V   kW   8.8   400V   kW   16   415V   kW   17   440V   kW   17   500V   kW   20   690V   kW   22   8   20   690V   kW   22   8   20   690V   kW   22   8   20   690V   kW   36   500V   kW   36   500V   kW   45   690V   kW   62   8   690V   kW   62   8   690V   kW   62   8   690V   kW   62   8   690V   kW   62   kW   62		AC-4 (400V)	Α	13.5
400V   kW   16   415V   kW   17   440V   kW   17   440V   kW   17   500V   kW   20   690V   kW   22   22   22   23   24   24   24   25   22   24   25   22   25   25	Rated operational power AC-3 (T≤55°C)			_
A15V		230V	kW	8.8
A40V   kW   17   500V   kW   20   690V   kW   22		400V	kW	16
Soov   kW   20   690V   kW   22		415V	kW	17
Rated operational power AC-1 (T≤40°C)   230V   kW   21   400V   kW   36   500V   kW   45   690V   kW   62		440V	kW	17
Rated operational power AC-1 (T≤40°C)  230V kW 21 400V kW 36 500V kW 45 690V kW 62  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 30 48V A 26 75V A 22 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 32 48V A 32 75V A 28 110V A 25 220V A 3  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 32 48V A 32 75V A 38 110V A 25 220V A 3		500V	kW	20
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		690V	kW	22
A00V   kW   36   500V   kW   45   690V   kW   62	Rated operational power AC-1 (T≤40°C)			
Soov   kW   45   690V   kW   62		230V	kW	21
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   ≤24V		400V	kW	36
Section   Sec				
		690V	kW	62
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V   A   22   110V   A   8   220V   A   -			Α	
110V   A   8   220V   A   -			Α	
EC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series   $\leq$ 24V   A   32   48V   A   32   75V   A   28   110V   A   25   220V   A   3				
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V				8
		220V	Α	
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
EC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series   $\leq$ 24V				
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 32  48V A 32  75V A 32				
≤24V A 32 48V A 32 75V A 32	150 ALL DOL WILLD AND AND AND AND AND AND AND AND AND AN	220V	Α	3
48V A 32 75V A 32	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
75V A 32				
110V A 27				
		110V	Α	27



	220V	Α	23	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				
	≤24V	Α	20	
	48V	Α	17	
	75V	Α	15	
	110V	Α	2,5	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
	≤24V	Α	25	
	48V	Α	22	
	75V	A	20	
	110V	A	15	
	220V	A	3	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	22U V		J	
TEO MAX CUITETILIE III DOG-DOG WILLI LIN 2 TOMS WILL 3 POIES III SELIES	≤24V	٨	30	
	≤24V 48V	A	30	
		A	28	
	75V	A	28	
	110V	A	20	
	220V	Α	23	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	320	
Protection fuse				
	gG (IEC)	Α	63	
	aM (IEC)	Α	32	
Making capacity (RMS value)		Α	320	
Breaking capacity at voltage				
	440V	Α	256	
	500V	Α	240	
	690V	Α	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	70 0	V V		
rightering torque for terminals	min	Nm	2.5	
	min		2.5 3	
	max	Nm Ibin		
	min	lbin Ibin	1.8	
Tightoning tours for add town in all	max	Ibin	2.2	
Tightening torque for coil terminal			0.0	
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	8.0	





	max	lbin	0.74
	simultaneously connectable	Nr.	2
Conductor section	AMO II Caratt		
	AWG/Kcmil		6
	Flexible w/o lug conductor section		0
	min	mm²	2.5
	max	mm²	16
	Flexible c/w lug conductor section		
	min	mm²	1
	max	mm²	10
	Flexible with insulated spade lug conductor section		
	min	mm²	1
	max	mm²	10
Power terminal prote	ction according to IEC/EN 60529		IP20 when
	<u> </u>		properly wired
Mechanical features Operating position			
Operating position	normal		Vertical plan
	allowable		±30°
			Screw / DIN rail
Fixing			35mm
Weight		g	420
Conductor section			
	AWG/kcmil conductor section		
	max		6
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	1600000
Safety related data	10d according to EN/ISO 13489-1		
r enormance level b	rated load	cycles	1600000
	mechanical load	cycles	20000000
		0,0.00	
Mirror contats accord	ling to IEC/EN 609474-4-1		
	ling to IEC/EN 609474-4-1		yes
Mirror contats accord EMC compatibility AC coil operating	ling to IEC/EN 609474-4-1		
EMC compatibility		V	yes
EMC compatibility AC coil operating	60Hz	V	yes yes
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz	V	yes yes
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz pick-up		yes yes 120
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz pick-up min	%Us	yes yes 120
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz pick-up min max		yes yes 120
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz pick-up min max drop-out	%Us %Us	yes yes 120 80 110
EMC compatibility AC coil operating Rated AC voltage at	60Hz of 60Hz coil powered at 60Hz pick-up min max drop-out min	%Us %Us %Us	yes yes 120 80 110 20
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage	60Hz of 60Hz coil powered at 60Hz pick-up min max drop-out min max	%Us %Us	yes yes 120 80 110
EMC compatibility AC coil operating Rated AC voltage at	of 60Hz coil powered at 60Hz pick-up min max drop-out min max sumption at 20°C	%Us %Us %Us	yes yes 120 80 110 20
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage	60Hz of 60Hz coil powered at 60Hz pick-up min max drop-out min max	%Us %Us %Us	yes yes 120 80 110 20
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage	of 60Hz coil powered at 60Hz pick-up min max drop-out min max sumption at 20°C of 60Hz coil powered at 60Hz	%Us %Us %Us %Us	yes yes 120 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage	of 60Hz coil powered at 60Hz pick-up min max drop-out min max sumption at 20°C of 60Hz coil powered at 60Hz in-rush holding	%Us %Us %Us %Us	yes yes 120 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage AC average coil cons	of 60Hz coil powered at 60Hz pick-up min max drop-out min max sumption at 20°C of 60Hz coil powered at 60Hz in-rush holding	%Us %Us %Us %Us VA	yes yes 120 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at AC operating voltage AC average coil cons Dissipation at holding	of 60Hz coil powered at 60Hz pick-up min max drop-out min max sumption at 20°C of 60Hz coil powered at 60Hz in-rush holding	%Us %Us %Us %Us VA	yes yes 120 80 110 20 55

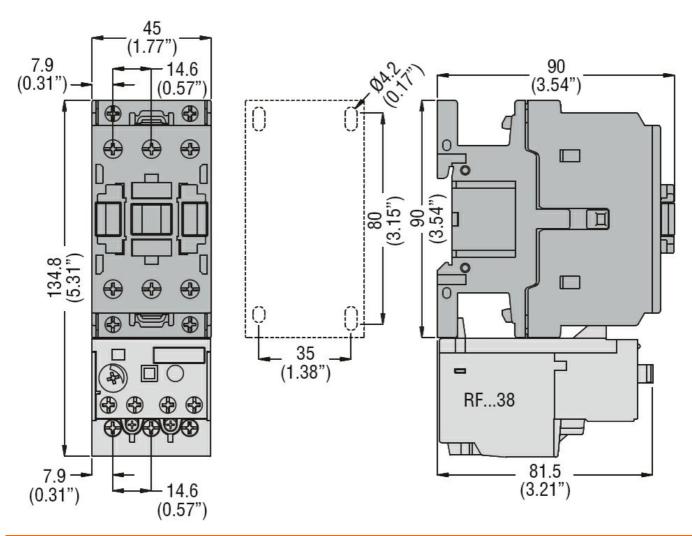




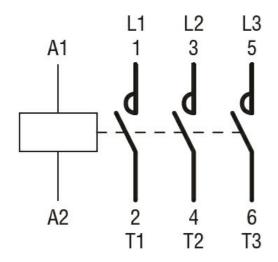
Average time for Us co	ontrol				
-	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			
			min	ms	5
			max	ms	15
		Closing NC			
			min	ms	9
			max	ms	20
		Opening NC			
			min	ms	9
			max	ms	17
UL technical data					
Full-load current (FLA)	) for three-phase AC mot	or		_	
			at 480V	Α	27
			at 600V	Α	27
Yielded mechanical pe					
	for single-phase AC m	otor			_
			110/120V	HP	3
			230V	HP	7.5
	for three-phase AC mo	otor	000/0001/		
			200/208V	HP	10
			220/230V	HP	10
			460/480V	HP	20
0			575/600V	HP	25
General USE	Onntantan				
	Contactor		A O	۸	FF
Chart sive it protection	- fues COOV		AC current	Α	55
Short-circuit protection					
	High fault		Chart sinarrit surrent	L.Λ	400
			Short circuit current	kA ^	100
			Fuse rating	Α	100
	Standard fault		Fuse class		J
	Stanuaru fauit		Short circuit current	kA	5
			Fuse rating	A	5 125
Ambient conditions			i use raing		120
Temperature					
remperature	Operating temperature	•			
	Operating temperature	•	min	°C	-50
			max	°C	70
	Storage temperature		max		
	Storago tomporature		min	°C	-60
			max	°C	80
Max altitude			max	m	3000
Resistance & Protection	on				
Pollution degree					3
Dimensions					



#### **ENERGY AND AUTOMATION**



### 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



### BF3200A12060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 60HZ,

	UL 60947-4-1		
Certificates			
	CCC		
	cULus		
	EAC		
ETIM classification			
		EC0000	)66 -

ETIM 8.0

Power contactor, AC switching