



Product designation Power contactor Product type designation BF12 Contact characteristics 4 Nr. Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k√ Rated impulse withstand voltage Uimp 6 Operational frequency min Ηъ 25 max Hz 400 IEC Conventional free air thermal current Ith 28 Α Operational current le AC-1 (≤40°C) Α 28 AC-1 (≤55°C) Α 23 AC-1 (≤70°C) Α 20 AC-3 (≤440V ≤55°C) Α 12 AC-4 (400V) 7.9 Rated operational power AC-1 (T≤40°C) 230V kW 10 400V kW 18 500V kW 23 690V kW 32 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 17 48V 15 75V Α 13 110V Α 6 220V IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 20 48V Α 20 75V Α 18 110V Α 13 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 22 ≤24V Α 48V 22 Α 75V Α 20 110V Α 16 220V 11 IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series ≤24V 20 Α 48V Α 20 75V 20 Α 110V Α 16 220V 12





IEC max current le in	DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	12
		48V	Α	11
		75V	Α	10
		110V	Α	2
		220V	Α	_
IEC max current le in	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	<del>-</del>		
		≤24V	Α	15
		48V	A	13
		75V	A	12
		110V	A	
				8
IEO	D00 D05 ''ILL/D 4.45 ''IL0 L - ' '	220V	A	2
IEC max current le in	DC3-DC5 with L/R ≤ 15ms with 3 poles in series		_	
		≤24V	Α	18
		48V	Α	18
		75V	Α	15
		110V	Α	12
		220V	Α	6
IEC max current le in	DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
		≤24V	Α	15
		48V	Α	15
		75V	Α	15
		110V	Α	16
		220V	Α	7
Short-time allowable of	current for 10s (IEC/EN60947-1)	220 V	A	150
Protection fuse	Content for 103 (IEO/EN003+7-1)			100
i iotection iuse		gG (IEC)	Α	32
				12
Making consists (DMC	) valua)	aM (IEC)	<u>А</u> А	
Making capacity (RMS	·		A	120
Breaking capacity at ve	oitage	4.40)./	•	0.0
		440V	Α	96
		500V	Α	96
		690V	A	94
Resistance per pole (a			mΩ	2.5
Power dissipation per	pole (average value)			
		Ith	W	2
		AC-3	W	0.4
Tightening torque for t	erminals			
		min	Nm	1.5
		max	Nm	1.8
		min	Ibin	1.1
		max	Ibin	1.5
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
			Ibin	0.8
		min		
Mov purch or of mine :	nimultana ayah yanna atah la	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section			
		min	mm²	1





			2	•
	Elevible a / v. b. a conductor a cation	max	mm²	6
	Flexible c/w lug conductor section	min	mm²	1
		min max	mm² mm²	1 4
	Flexible with insulated spade lug conductor		111111	4
	r lexible with insulated space lug conductor	min	mm²	1
		max	mm²	4
		THOX:		IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	354
Conductor section	ANA/O/I			
	AWG/kcmil conductor section			10
Operations		max		10
Operations Mechanical life			cycles	20000000
Electrical life	·		cycles	2000000
Safety related data			Cycles	200000
•	0d according to EN/ISO 13489-1			
	52 255 ang to 214,50 10 100 1	rated load	cycles	2000000
		mechanical load	cycles	20000000
Mirror contats accordi	ng to IEC/EN 609474-4-1		_ · <b>,</b> · · · ·	yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 6	0Hz		V	120
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11-	20
		min	%Us %Us	20
AC average coil consi	umption at 20°C	max	/0US	55
AS average con consi	of 60Hz coil powered at 60Hz			
	or our iz con powered at our iz	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz	Holding	W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us c	ontrol			
	in AC			
	Clasing NO			
	Closing NO			
	Closing NO	min	ms	8
		min max	ms ms	8 24
	Opening NO	max	ms	24

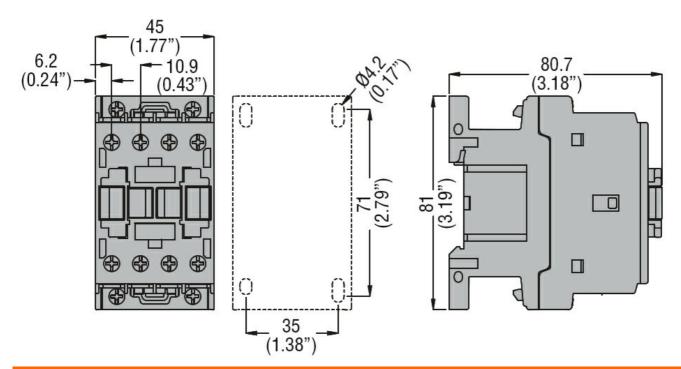




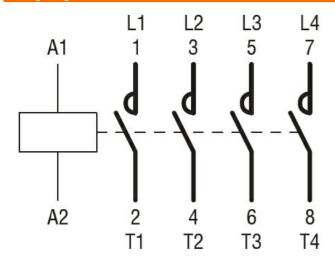
	Closing NC			
	· ·	min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	11
		at 600V	Α	11
Yielded mechanical pe	rformance			
	for single-phase AC motor			
		110/120V	HP	1
		230V	HP	2
	for three-phase AC motor			
		200/208V	HP	5
		220/230V	HP	5
		460/480V	HP	7.5
		575/600V	HP	10
General USE				
	Contactor			
		AC current	Α	28
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	70
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	n Table 1			
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

UL 60947-4-1

Certificates

CCC

cULus

EAC

### ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching