

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 60HZ, 460VAC



Product type designation September				10 10 10 10
Contact characteristics Nr. 4 Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 Hz 25 max Hz 400 Hz 400	Product designation			Power contactor
Number of poles				BF50
Rated insulation voltage UirEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 25 max Hz 400 IEC Conventional free air thermal current Ith A 90 Operational current Ie AC-1 (\$40°C) A 90 AC-1 (\$55°C) A 95 AC-1 (\$70°C) A 65 AC-1 (\$70°C) A 65 AC-1 (\$400°C) A 50 AC-4 (400V) A 28 Rated operational current AC-3 (T≤55°C) 230V A 50 A 50 440V A 50 440V A 50 440V A 50 440V A 39 1000V A 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 40V kW 55°C) 230V kW 34 40V kW 55°C) 230V kW 34 40V kW 55°C) 23V kW 34 40V kW 55°C) 24V kW 4 4			.,	4
Rated impulse withstand voltage Ulimp				
Operational frequency min max Hz bit Hz 25 max Hz bit Hz 400 IEC Conventional free air thermal current lth A 90 Operational current le AC-1 (≤40°C) A 90 AC-1 (≤55°C) A 75 AC-3 (≤440V ≤55°C) A 50 AC-3 (≤440V ≤55°C) A 50 AC-4 (4000V) A 28 Rated operational current AC-3 (T≤55°C) 230V A 50 440V A 50 440V A 50 440V A 50 440V A 39 100V A 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 39 100V kW 59 500V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 110V A 50				
Min			kV	8
EC Conventional free air thermal current lth	Operational frequency			
EC Conventional free air thermal current lith		min		
Operational current le AC-1 (≤40°C)		max		
AC-1 (≤40°C)			Α	90
AC-1 (≤55°C)	Operational current le			
AC-1 (≤70°C) A 65 AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational current AC-3 (T≤55°C) 230V A 50 440V A 50 4415V A 50 4440V A 50 500V A 44 690V A 39 1000V A 23 Rated operational power AC-1 (T≤40°C) 230V W 34 440V A 50 500V W 34 490V W 59 500V W 74 690V W 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 60 75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			Α	
AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational current AC-3 (T≤55°C) 230V A 50 440V A 50 4415V A 50 4440V A 50 500V A 44 690V A 39 1000V A 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 440V kV 59 500V kW 74 690V kW 59 500V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 40 75V A 40 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			Α	
Rated operational current AC-3 (T≤55°C) 230V A 50 440V A 50 4415V A 50 440V A 50 500V A 44 690V A 39 1000V A 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 440V kW 59 500V kW 74 690V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		. ,	Α	
Rated operational current AC-3 (T≤55°C) 230V A 50 440V A 50 415V A 50 440V A 50 500V A 44 690V A 39 1000V A 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 59 500V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 48V A 60 110V A 50 220V A 7			Α	
230V		AC-4 (400V)	Α	28
400V	Rated operational current AC-3 (T≤55°C)			
415V		230V	Α	50
440V		400V	Α	50
Soov A 44		415V	Α	50
690V A 39 1000V A 23		440V	Α	50
Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 59 500V kW 74 690V kW 102		500V	Α	44
Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 59 500V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 40 75V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 48V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		690V	Α	39
		1000V	Α	23
A00V kW 59 500V kW 74 690V kW 102	Rated operational power AC-1 (T≤40°C)			
Soov kW 74 690V kW 102		230V	kW	34
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V		400V	kW	59
Section Sec		500V	kW	74
\$\leq 24V		690V	kW	102
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V A 40 110V A 8 220V A -		≤24V	Α	45
110V A 8 220V A -		48V	Α	40
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V		75V	Α	40
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60 48V A 60		110V	Α	8
≤24V		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60		≤24V	Α	60
		48V	Α	60
		75V	Α	60
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60		110V	Α	50
≤24V A 60 48V A 60		220V	Α	7
≤24V A 60 48V A 60	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
48V A 60		≤24V	Α	60
75V A 60		48V	Α	60
		75V	Α	60





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 60HZ, 460VAC

	110V	Α	55
	220V	Α	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	60
	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	30
	48V	Α	25
	75V	Α	22
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	35
	48V	Α	35
	75V	Α	30
	110V	Α	25
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	45
	110V	Α	30
	220V	Α	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	55
	48V	Α	55
	75V	Α	55
	110V	Α	45
01 + 12 - 14 - 14 - 15 - 15 - 15 - 15 - 15 - 15	220V	A	50
Short-time allowable current for 10s (IEC/EN60947-1)		Α	400
Protection fuse	0 (150)	•	400
	gG (IEC)	A	100
Malian and it (DMO all a)	aM (IEC)	A	50
Making capacity (RMS value)		Α	500
Breaking capacity at voltage	4.4017	Δ.	400
	440V	A	400
	500V	A	352
Desistance normale (overes:	690V	A	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	1.1	147	0.5
	Ith	W	6.5
Tinh toning a tonour for tonour to	AC-3	W	2
Tightening torque for terminals			4
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
Tightening to go of the collaboration!	max	lbin	3.69
Tightening torque for coil terminal		N 1 .	0.0
	min	Nm	0.8
	max	Nm	1



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 60HZ,

		min	Ibin	0.8
		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section		2	
		min	mm²	1.5
Dance to make all a sets	-ti	max	mm²	35
	ction according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position		normal		Vertical plan
		allowable		Vertical plan ±30°
-		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	1240
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B1	10d according to EN/ISO 13489-1			
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats accord	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 6	60Hz		V	460
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
10 "	U 10000	max	%Us	55
AC average coil cons	•			
	of 60Hz coil powered at 60Hz	!1	1/4	240
		in-rush	VA	210
Disable of bally	×20°C FOLI-	holding	VA	15
Dissipation at holding			W	5
Max cycles frequency			ovoloo/b	2600
Mechanical operation			cycles/h	3600
Operating times	control			
Average time for Us of	CONTROL			

Closing NO

in AC



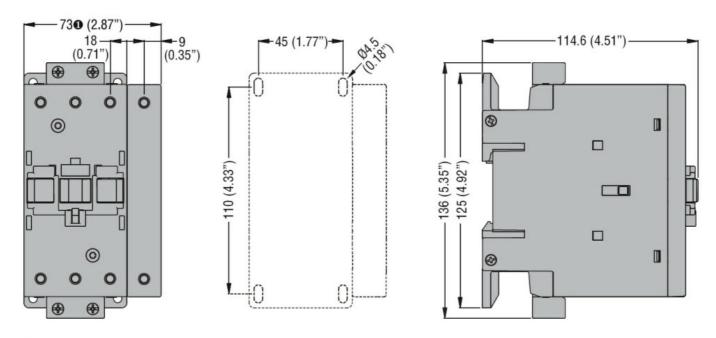


FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 60HZ,

		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				
Full-load current (FLA	a) for three-phase AC motor			
		at 480V	Α	52
		at 600V	Α	41
Yielded mechanical p				
	for single-phase AC motor			
		110/120V	HP	5
		230V	HP	10
	for three-phase AC motor			
		200/208V	HP	15
		220/230V	HP	20
		460/480V	HP	40
		575/600V	HP	40
General USE				
	Contactor			
		AC current	Α	90
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	150
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ion			
Pollution degree				3
Dimensions				

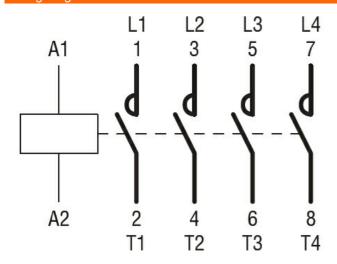
ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 60HZ, 460VAC



BF80T2 82mm/3.23"

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