

ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 60HZ,



Product type designation	Product designation			Power contactor
Number of poles				
Number of poles	· · · ·			
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 imax Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ite AC-1 (≤40°C) A 115 AC-1 (≤70°C) A 80 AC-1 (≤70°C) A 80 AC-1 (≤40°V) A 38 AC-1 (≤40°V) A 80 AC-2 (≤440V ≤55°C) A 80 AC-4 (400V) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 80 AC-4 (400V) A 80 AC-4 (400V) A 80 A15V A 80 AC-4 (400V) A <td< td=""><td></td><td></td><td>Nr.</td><td>4</td></td<>			Nr.	4
Rated impulse withstand voltage Ulimp	·			1000
Operational frequency min max by Hz max Hz max Hz hz hz 400 IEC Conventional free air thermal current lth A 115 Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤70°C) A 80 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 40V A 80 415V A 80 440V A 80 440V A 80 440V A 80 440V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 40V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 75V A 100 75V A 100 75V A 100 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 75V A 100 110V A 8 220V A 9			kV	
Min				
EC Conventional free air thermal current lth		min	Hz	25
Operational current le AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 440V A 80 690V A 78 690V A 78 690V KW 43 400V KW 43 400V KW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 48V A 100 110V A 80 220V A 100 110V A 80		max	Hz	400
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	115
AC-1 (≤55°C) A 95 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 100 75V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 75V 75V 75V 75V 75V 75V	Operational current le			
AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V KW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤40°C)	Α	115
AC-3 (≤440V ≤55°C)		AC-1 (≤55°C)	Α	95
Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 100 48V A 100 48V A 100 48V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			Α	80
Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 110V A 80 220V A 9		,	Α	80
230V		AC-4 (400V)	Α	38
400V	Rated operational current AC-3 (T≤55°C)			
415V				
440V A 80 500V A 78 690V A 57 1000V A 28				
Soov A 78 690V A 57 1000V A 28				
Rated operational power AC-1 (T≤40°C) 230V kW 43 4400V kW 76 500V kW 95 690V kW 120				
Rated operational power AC-1 (T≤40°C) 230V kW 43 440V kW 76 500V kW 95 690V kW 120				
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 110V A 80 220V A 9				
	D 1 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1000V	А	28
A00V kW 76 500V kW 95 690V kW 120	Rated operational power AC-1 (1540°C)	0001	1-107	40
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 70				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V				
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V				
	IFC may current le in DC1 with L/R < 1ms with 1 notes in series	090 V	KVV	120
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TEO MAX current le in DOT with E/TC = 11113 with 1 poles in series	<24\/	Δ	70
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
110V A 8 220V A -				
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 100 48V A 100 75V A 100 110V A 80 220V A 9				
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series				_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	·	≤24V	Α	100
		48V		
		75V	Α	100
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100		110V	Α	80
≤24V A 100 48V A 100		220V	Α	9
48V A 100	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
		≤24V	Α	100
75V A 100		48V	Α	100
		75V	Α	100





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 60HZ, 48VAC

	110V	Α	85
	220V	Α	95
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	100
	48V	Α	100
	75V	Α	100
	110V	Α	100
	220V	Α	115
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	A	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			040
Protection ruse	«C (IEC)	۸	105
	gG (IEC)	A	125
Malifer and arity (DMC value)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.403.4		0.40
	440V	A	640
	500V	A	625
	690V	Α	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC-3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



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		min	lbin	0.8
		max	Ibin	0.74
Max number of wires s	imultaneously 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			
		min	mm²	1.5
		max	mm²	35
	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	1240
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data	N			
Performance level B10	od according to EN/ISO 13489-1			1000000
		rated load	cycles	1300000
	. IEO/EN 000 474 4 4	mechanical load	cycles	15000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				10
Rated AC voltage at 60)Hz		V	48
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up		0/11-	0.0
		min	%Us	80
	dram aut	max	%Us	110
	drop-out	مناهم	0/116	20
		min	%Us	20
AC average seil sensu	motion at 20°C	max	%Us	55
AC average coil consu	•			
	of 60Hz coil powered at 60Hz	in-rush	VA	210
		in-rush holding	VA VA	15
Discipation at holding	<20°C 50H-7	noluling	W	5
Dissipation at holding: Max cycles frequency	≥2U G JU∏Z		۷V	ິ
Mechanical operation			cycles/h	3600
Operating times			cycles/fi	3000
Average time for Us co	potrol			
AVEIAUE IIIIE IUI US CO	лшог			

Closing NO

in AC





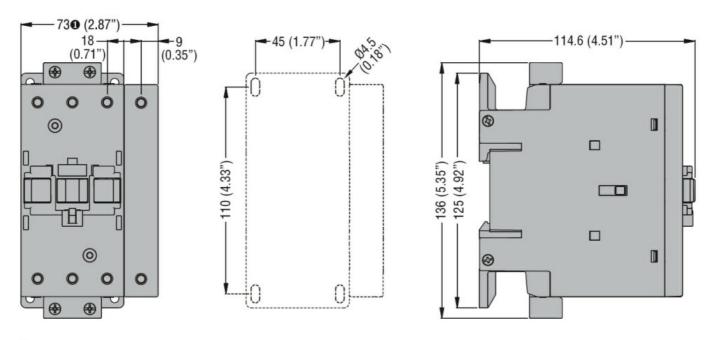
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		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	77
		at 600V	Α	77
Yielded mechanical pe	erformance			
	for three-phase AC motor			
		200/208V	HP	25
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75
General USE				
	Contactor			
		AC current	Α	115
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		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 & Protection	on			
Pollution degree				3
Dimensions				



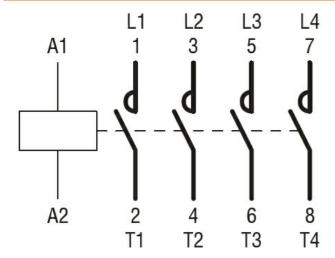
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BF80T2 82mm/3.23"

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