BF65T4A048

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ, 48VAC



Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		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
IEC Conventional free air thermal current Ith		A	100
Operational current Ie			
	AC-1 (≤40°C)	A	100
	AC-1 (≤55°C)	A	80
	AC-1 (≤70°C)	A	70
	AC-3 (≤440V ≤55°C)	A	65
	AC-4 (400V)	A	31
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	50
	48V	A	50
	75V	A	50
	110V	A	8
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	90
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	70
	48V	A	70
	75V	A	70
	110V	A	70
	220V	A	110

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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	35
	48V	A	25
	75V	A	25
	110V	A	3
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	45
	48V	A	40
	75V	A	40
	110V	A	30
	220V	A	5
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	55
	48V	A	50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	A	65
Short-time allowable current for 10s (IEC/EN60947-1)		A	640
Protection fuse			
	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)		A	650
Breaking capacity at voltage			
	440V	A	520
	500V	A	425
	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
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
	min	lbin	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

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		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protection 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	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats according to IEC/EN 609474-4-1				yes
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	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	VA	15
Dissipation at holding ≤20°C 50Hz			W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600

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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			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	A 65
			at 600V	A 62
Yielded mechanical performance				
	for three-phase AC motor			
			200/208V	HP 20
			220/230V	HP 25
			460/480V	HP 50
			575/600V	HP 60
General USE				
	Contactor			
			AC current	A 100
Short-circuit protection fuse, 600V				
	High fault			
			Short circuit current	kA 100
			Fuse rating	A 200
			Fuse class	J
	Standard fault			
			Short circuit current	kA 10
			Fuse rating	A 200
			Fuse class	RK5

Ambient conditions

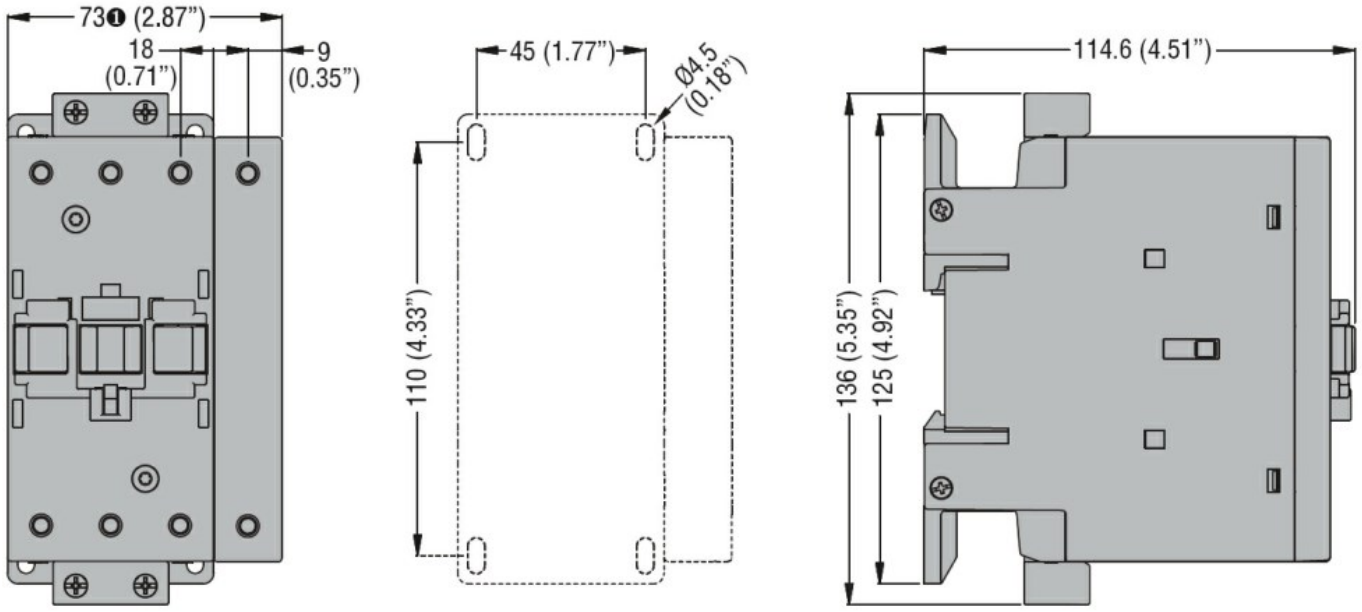
Temperature				
	Operating temperature			
			min	°C -50
			max	°C 70
	Storage temperature			
			min	°C -60
			max	°C 80
Max altitude				m 3000

Resistance & Protection

Pollution degree 3

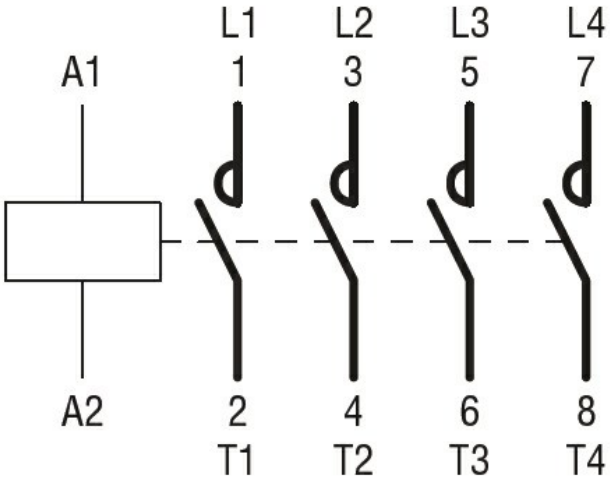
Dimensions

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❶ 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

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