

# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 50/60HZ, 110VAC



Product designation Power contactor Product type designation BF18

Product type designation			DE 10
Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
'	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	18
	AC-4 (400V)	Α	8.5
Rated operational power AC-1 (T≤40°C)	7.0 1 (1007)		3.0
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
can six to in Bo . mai Bix = into mai i potoo in oonoo	≤24V	Α	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	2201		
TEG MAX GAMENT TO ME DO F MAIL EACH TIME MAIL E POIGE ME GOING	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			•
120 Max carrolle in 201 Mai 2/12 This war o polos in solics	≤24V	Α	22
	48V	Α	22
	75V	A	20
	110V	A	16
	220V	A	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		11
TEO MAN outletit le ill DOT with E/IV 2 Hills with 4 poles ill selles	≤24V	Α	22
	≤24V 48V	A	22
	75V		
	75V 110V	A	20
		A	18
	220V	Α	13

**ENERGY AND AUTOMATION** 

## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 50/60HZ, 110VAC

IEC max current le in Do	C3-DC5 with L/R ≤ 15ms with 1 poles in series			
	·	≤24V	Α	12
		48V	Α	11
		75V	Α	11
		110V	A	2
		220V	A	_
IFC many assument to in Di	C2 DC5 with L/D < 15 may with 2 males in series	220 V	<u> </u>	<u>-</u>
iec max current le in Di	C3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.01		
		≤24V	Α	15
		48V	Α	13
		75V	Α	13
		110V	Α	8
		220V	Α	2
IEC max current le in Do	C3-DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	18
		48V	Α	18
		75V	Α	16
		110V	A	12
		220V	A	6
IFC may summed to in Di	C2 DCE with 1/D < 45-req with 4 males in seni	2201	Α	U
IEC max current le in Do	C3-DC5 with L/R ≤ 15ms with 4 poles in series		_	
		≤24V	Α	18
		48V	Α	18
		75V	Α	16
		110V	Α	13
		220V	Α	8
Short-time allowable cur	rrent for 10s (IEC/EN60947-1)		Α	200
Protection fuse	,			
		gG (IEC)	Α	32
		aM (IEC)	Α	20
Making capacity (RMS v	value)	aw (ilo)	A	180
	· · · · · · · · · · · · · · · · · · ·		A	100
Breaking capacity at vol	tage	4.401.4		
		440V	Α	144
		500V	Α	120
-		690V	Α	94
Resistance per pole (av	erage value)		$m\Omega$	2.5
Power dissipation per po	ole (average value)			
		Ith	W	2.6
		AC-3	W	0.8
Tightening torque for ter	minals			
. Ignioning torque for ter		min	Nm	1.5
		min		
		max	Nm	1.8
		min	lbin	1.1
		max	Ibin	1.5
Tightening torque for co	il terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
Max number of wires sir	multaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	AVVO/ROTH	mar		10
	Fig. 11	max		10
	Flexible w/o lug conductor section		•	
		min	mm²	1





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				0
	Clavible a further conductor continu	max	mm²	6
	Flexible c/w lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor			т
	Tiombie man modiated spade rag contact	min	mm²	1
		max	mm²	4
Dower terminal protect	tion according to IEC/EN 60520			IP20 when
<u></u>	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
Weight				35mm 358
Conductor section			g	330
CONTROLOR SECTION	AWG/kcmil conductor section			
	, to O, North Corrector Scotton	max		10
Operations		THOX		
Mechanical life			cycles	20000000
Electrical life			cycles	1600000
Safety related data			·	
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	cycles	1600000
		mechanical load	cycles	20000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating	0 (00)			440
Rated AC voltage at 5	0/60Hz		V	110
AC operating voltage	of 50/0011- asil resugged at 5011-			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	THOX	7000	
	3.56 63.	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	85
		max	%Us	110
	drop-out		0.44.7	0.0
		min	%Us	20
AC everes 5-11	implies at 20°C	max	%Us	55
AC average coil consu	•			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	75
		holding	VA VA	9
	of 50/60Hz coil powered at 60Hz	noiding	V /- \	
	3. 30/30/12 30/1 powered at 30/12	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	9		
	•	in-rush	VA	75



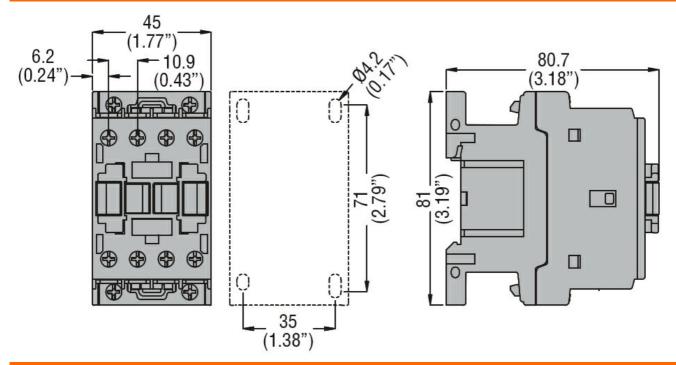
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		holding	VA	9
Dissipation at holding	ı <20°C 50Hz	Holding	W	2.5
Max cycles frequency			VV	2.0
Mechanical operation			cycles/h	3600
Operating times			0,000,11	
Average time for Us	control			
	in AC			
	Closing NO			
	3	min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
UL technical data				
Full-load current (FLA	A) for three-phase AC motor			
		at 480V	Α	14
		at 600V	Α	17
Yielded mechanical p	performance			_
	for single-phase AC motor			
		110/120V	HP	1
		230V	HP	3
	for three-phase AC motor			_
		200/208V	HP	5
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
Short-circuit protection	on fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	80
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

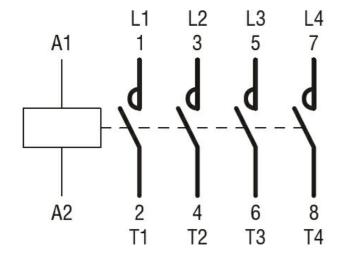
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#### **Dimensions**



#### 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