



Product designation Product type designation			Power contactor BF18
Contact characteristics			DFTO
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency		i v	0
oporational modulo op	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	Пах	A	32
Operational current le			02
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	А	8.5
Rated operational power AC-3 (T≤55°C)	- (/		
	230V	kW	4
	400V	kW	7.5
	415V	kW	9
	440V	kW	9
	500V	kW	10
	690V	kW	10
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	17
	48V	А	15
	75V	А	15
	110V	А	6
	220V	Α	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	20
	48V	А	20
	75V	А	20
	110V	А	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
	≤24V	А	22
	48V	А	22
	75V	А	20
	110V	А	16

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT

	220V	А	11	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	22	
	48V	А	22	
	75V	А	20	
	110V	А	18	
	220V	А	13	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				
	≤24V	А	12	
	48V	А	11	
	75V	А	11	
	110V	А	2	
	220V	А	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	А	15	
	48V	А	13	
	75V	A	13	
	110V	A	8	
	220V	A	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201		2	
	≤24V	А	18	
	48V	A	18	
	48V 75V	A	16	
	110V	A	10	
	220V	A	6	
IFC may autrent to in DC2 DC5 with L/D < 15mg with 4 palas in series	2200	A	0	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series	≤24V	۸	10	
	≤24V 48V	A	18	
	48 V 75 V	A	18	
	75V 110V	A	16	
	-	A	13	
	220V	<u>A</u>	8	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	A	20	
Making capacity (RMS value)		А	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	А	120	
	690V	А	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC-3	W	0.8	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	0.8	
			0.0	

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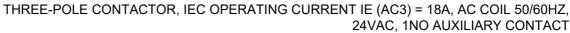
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		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor Section	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	max		10
	5	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
Machanical factures				properly wired
Mechanical features Operating position				
		normal		Vertical plan
		allowable		±30°
		anomabio		Screw / DIN rail
Fixing				35mm
Weight			g	364
Auxiliary contact char	acteristics		-	
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	15			
		230V	А	3
		400V	А	1.9
		500V	A	1.4
Operating current DC	12			
		110V	A	5.7
Operating current DC	13		-	
		24V	A	5.7
		48V	A	2.9
		60V	A	2.3
		110V 125V	A A	1.25 1.1
		125V 220V	A	0.55
		220V 600V	A	0.2
Operations		0007	~	0.2
Mechanical life			cycles	20000000
Electrical life			cycles	1600000
Safety related data			.,	
	10d according to EN/ISO 13489-1			
	-	rated load	cycles	1600000
	me	echanical load	cycles	2000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at \$	50/60Hz		V	24
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			

pick-up

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		min	%Us	80
		max	%Us	110
	drop out	тах	/000	110
	drop-out			
		min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	, pick-up			
	pick up	min	%Us	85
		min		
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil cons	umption at 20°C	max	/000	
AC average con cons				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz		-	
			۱/۸	70
		in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
			VA VA	9
		holding		
Dissipation at holding			W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			.,	
	a u tual			
Average time for Us of				
	in AC			
	Closing NO			
	Closing NO	min	ms	8
	Closing NO	min	ms	8
		min max	ms ms	8 24
	Closing NO Opening NO	max		24
		max	ms ms	24 10
	Opening NO	max	ms	24
		max min max	ms ms ms	24 10 20
	Opening NO	max min max min	ms ms ms ms	24 10 20 14
	Opening NO Closing NC	max min max	ms ms ms	24 10 20
	Opening NO	max min max min	ms ms ms ms	24 10 20 14
	Opening NO Closing NC	max min max min	ms ms ms ms	24 10 20 14
	Opening NO Closing NC	max min max min max min	ms ms ms ms ms	24 10 20 14 28 7
III. technical data	Opening NO Closing NC	max min max min max	ms ms ms ms ms	24 10 20 14 28
UL technical data	Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms ms	24 10 20 14 28 7 18
Rated operational vol	Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms	24 10 20 14 28 7
Rated operational vol	Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms ms	24 10 20 14 28 7 18
Rated operational vol	Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms ms	24 10 20 14 28 7 18
Rated operational vol	Opening NO Closing NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms V	24 10 20 14 28 7 18 600 14
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max	ms ms ms ms ms ms V	24 10 20 14 28 7 18 600
Rated operational vol	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max at 480V	ms ms ms ms ms ms V	24 10 20 14 28 7 18 600 14
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max at 480V at 600V	ms ms ms ms ms V A A	24 10 20 14 28 7 18 600 14 17
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max at 480V	ms ms ms ms ms ms V	24 10 20 14 28 7 18 600 14
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max at 480V at 600V	ms ms ms ms ms V A A	24 10 20 14 28 7 18 600 14 17
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL) a) for three-phase AC motor erformance for single-phase AC motor	max min max min max min max at 480V at 600V	ms ms ms ms ms V A A HP	24 10 20 14 28 7 18 600 14 17 1
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL)	max min max min max min max at 480V at 600V 110/120V 230V	ms ms ms ms ms V A A A HP HP	24 10 20 14 28 7 18 600 14 17 1 3
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL) a) for three-phase AC motor erformance for single-phase AC motor	max min max min max min max at 480V at 600V 110/120V 230V 200/208V	ms ms ms ms ms V A A A HP HP	24 10 20 14 28 7 18 600 14 17 1 3 5
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL) a) for three-phase AC motor erformance for single-phase AC motor	max min max min max min max at 480V at 600V 110/120V 230V 200/208V 220/230V	ms ms ms ms ms v V A A A HP HP HP	24 10 20 14 28 7 18 600 14 17 1 3 5 5
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL) a) for three-phase AC motor erformance for single-phase AC motor	max min max min max min max at 480V at 600V 110/120V 230V 200/208V	ms ms ms ms ms V A A A HP HP	24 10 20 14 28 7 18 600 14 17 1 3 5
Rated operational vol Full-load current (FLA	Opening NO Closing NC Opening NC tage AC (UL) a) for three-phase AC motor erformance for single-phase AC motor	max min max min max min max at 480V at 600V 110/120V 230V 200/208V 220/230V	ms ms ms ms ms v V A A A HP HP HP	24 10 20 14 28 7 18 600 14 17 1 3 5 5

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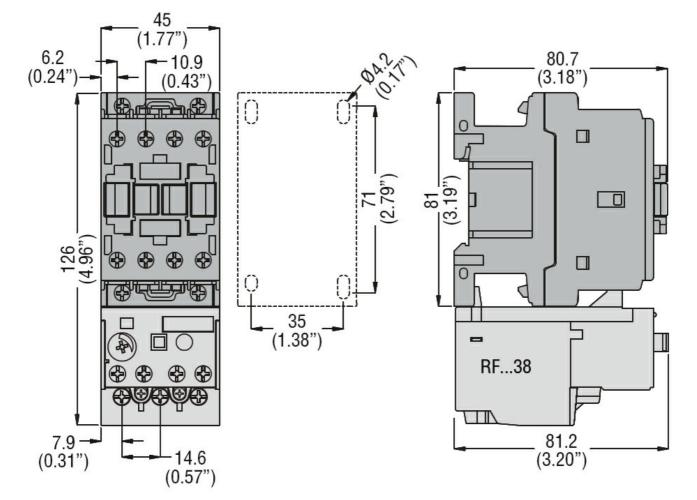


General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	80
Contact rating of auxili	ary contacts according to UL			A600 - P600
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				

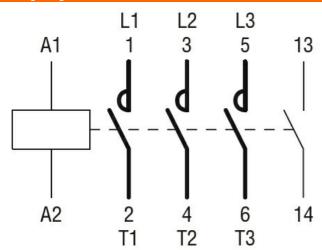
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Wiring diagrams



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

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CULus EAC ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching