



Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		A	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	А	18
	AC-4 (400V)	A	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	A	15
	110V	A	6
	220V	A	-
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



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 $L/R \le 1$ ms with 4 poles in series				
	≤24V	А	22	
	48V	А	22	
	75V	А	20	
	110V	А	18	
	220V	Α	13	
IEC max current le in DC3-DC5 with L/R \leq 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 $L/R \le 15$ ms with 2 poles in series				
	≤24V	А	15	
	48V	А	13	
	75V	А	13	
	110V	А	8	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	12	
	220V	А	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
·	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	13	
	220V	А	8	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	А	20	
Making capacity (RMS value)	(-)	Α	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	A	120	
	690V	А	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	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	Пах			
	min	Nm	0.8	
	max	Nm	0.8 1	
	min	Ibin	0.8	
	11111		0.0	

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

Mox number of wire		max	lbin	0.74
	es simultaneously connectable		Nr.	2
conductor section				
	AWG/Kcmil			4.0
		max		10
	Flexible w/o lug conductor section			
		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
				IP20 when
ower terminal pro	tection according to IEC/EN 60529			properly wired
lechanical features	S			
Derating position				
		normal		Vertical plan
		allowable		±30°
				Screw / DIN rail
ïxing				35mm
Veight			g	364
Conductor section			3	
	AWG/kcmil conductor section			
		max		10
uxiliary contact ch	aractoristics	max		10
hermal current Ith	aracteristics		А	10
	designation		A	
EC/EN 60947-5-1				A600 - P600
Operating current A	AC15			_
		230V	A	3
		400V	A	1.9
		500V	A	1.4
Dperating current D	DC12			
		110V	А	5.7
Derating current D	DC13			
		24V	А	5.7
		48V	А	2.9
		60V	A	2.3
		110V	A	1.25
		125V	A	1.1
		220V	A	0.55
		600V	A	0.2
Operations		000 0	7	J.2
lechanical life			aveloc	20000000
			cycles	2000000
Electrical life			cycles	1600000
afety related data				
erformance level	B10d according to EN/ISO 13489-1			
		rated load	cycles	1600000

	rated load	cycles	1600000	
	mechanical load	cycles	20000000	
Mirror contats according to IEC/EN 609474-4-1			yes	
EMC compatibility			yes	
AC coil operating				

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

Rated AC voltage at 5	0/60Hz		V	24
AC operating voltage				
1 0 0	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11	
		min	%Us	20
	of 50/60Hz coil powered at 60Hz	max	%Us	55
	pick-up			
	ρισκ-αρ	min	%Us	85
		max	%Us	110
	drop-out		,	
		min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz			70
		in-rush	VA	70 6 5
	of 60Hz coil powered at 60Hz	holding	VA	6.5
	or our z con powered at our z	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Mechanical operation Operating times			cycles/h	3600
			cycles/h	3600
Operating times	in AC		cycles/h	3600
Operating times				
Operating times	in AC	min	ms	8
Operating times	in AC Closing NO	min max		
Operating times	in AC	max	ms ms	8 24
Operating times	in AC Closing NO	max min	ms ms ms	8 24 10
Operating times	in AC Closing NO Opening NO	max	ms ms	8 24
Operating times	in AC Closing NO	max min	ms ms ms	8 24 10
Operating times	in AC Closing NO Opening NO	max min max	ms ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NO	max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times	in AC Closing NO Opening NO Closing NC	max min max min	ms ms ms ms ms	8 24 10 20 14 28 7
Operating times Average time for Us of	in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC	max min max min max min max	ms ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us of UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC common	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us of UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17
Operating times Average time for Us of UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC common	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 14 17 1
Operating times Average time for Us of UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC common	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17
Operating times Average time for Us of UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Closing NC Opening NC opening NC Provide the second se	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 14 17 1

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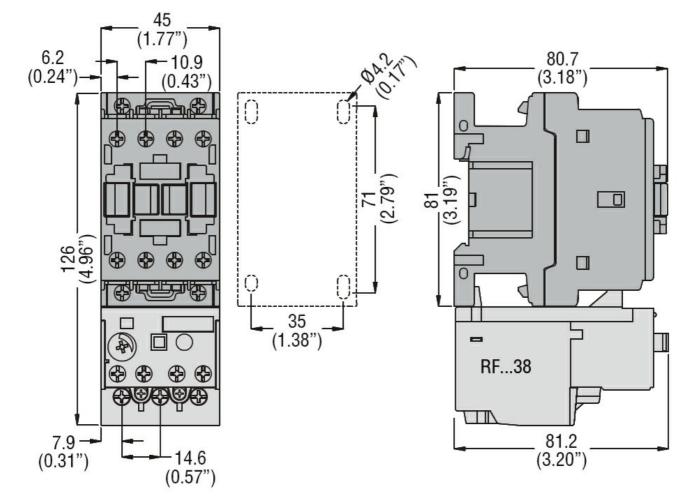


BF1810A024 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT

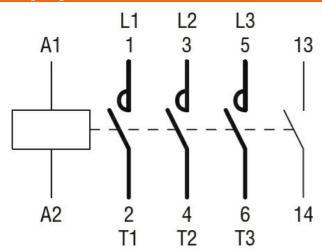
Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Image: state stat					
Standard fault Standard fault KA 5 Standard fault Short-circuit current KA 10 DC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault A 1 1 Short-circuit current KA 100 600			220/230V	HP	5
General USE Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 A600 - P600 A600 - P600 Ambient conditions Temperature min °C -50 Temperature Operating temperature min °C -60 Max altitude min °C -60 max °C 80 Max altitude min °C -60 max °C 80 Max altitude min °C -60 max °C <td></td> <td></td> <td>460/480V</td> <td>HP</td> <td>10</td>			460/480V	HP	10
Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Image: state stat			575/600V	HP	15
AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V BC current A 10 Fuse rating A 60 600 Fuse rating A 60 Fuse rating of auxiliary contacts according to UL KA 5 Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions A 50 70 Temperature min °C -50 max °C 70 70 Storage temperature min °C -50 Max altitude min °C -60 Max altitude min °C 80 Resistance & Protection min °C 80	General USE				
Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault KA 100 Fuse rating A 60 60 Fuse rating A 60 60 Fuse class J Standard fault Standard fault KA 5 Standard fault Short circuit current KA 5 600 Contact rating of auxiliary contacts according to UL A600 - P600 A600 - P600 Armbient conditions Temperature min °C -50 Temperature Operating temperature min °C -50 Storage temperature min °C -60 -50 Max altitude max °C 80 -60 Resistance & Protection min °C -60 Pollution degree min °C -60 Standard fault Standard fault Sta		Contactor			
AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL 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			AC current	А	32
AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Femperature Operating 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		Auxiliary contacts			
DC voltage DC current V 250 1 Short-circuit protection fuse, 600V High fault 5 Fuse rating A 100 Fuse rating A 60 Fuse rating A 5 Standard fault Short circuit current kA 5 Standard fault Short circuit current kA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions Fuse rating A Temperature Operating temperature min °C -50 Storage temperature min °C -50 -50 Max altitude min °C -60 -60 Max altitude min °C 80 -60 Max altitude min °C -60 -60 Max altitude min °C -60 -60 Pollution degree min °C -60 -60 -60 </td <td></td> <td></td> <td>AC voltage</td> <td>V</td> <td>600</td>			AC voltage	V	600
DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Standard fault Short circuit current kA 5 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions A 60 Temperature Operating temperature min °C Operating temperature min °C -50 Max altitude m 3000			AC current	А	10
Short-circuit protection fuse, 600V High fault High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature Operating temperature min °C -50 Max altitude min °C -60 max °C 70 Resistance & Protection min °C -60 max °C 80			DC voltage	V	250
High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Fuse rating A 80 Contact rating of auxiliary contacts according to UL KA 5 Ambient conditions A 80 Contact rating of auxiliary contacts according to UL A 80 Ambient conditions A 80 Contact rating of auxiliary contacts according to UL A 80 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL Fuse rating A 600 - P600 Ambient conditions Fuse rating Fuse rating -50 -50 Fuse rating Fuse rating C -50 -60 -60 Max altitude m 3			DC current	А	1
High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Fuse rating A 80 Contact rating of auxiliary contacts according to UL KA 5 Ambient conditions A 80 Contact rating of auxiliary contacts according to UL A 80 Ambient conditions A 80 Contact rating of auxiliary contacts according to UL A 80 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions Fuse rating A 80 Contact rating of auxiliary contacts according to UL Fuse rating A 600 - P600 Ambient conditions Fuse rating Fuse rating -50 -50 Fuse rating Fuse rating C -50 -60 -60 Max altitude m 3	Short-circuit protect	tion fuse, 600V			
Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Contact rating temperature Min °C Operating temperature min °C -50 Max altitude min °C -60 Max altitude m 3000					
Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions Fuse rating A Temperature 0		-	Short circuit current	kA	100
Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions Femperature Coperating temperature min °C			Fuse rating	А	60
Short circuit current Fuse rating kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions - Temperature 0 Operating temperature - min °C -50 max °C 70 Storage temperature - - min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection - 3			Fuse class		J
Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions - Temperature		Standard fault			
Contact rating of auxiliary 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 Max altitude Max altitude Note Storage temperature Min °C -60 Max 3000 Resistance & Protection Pollution degree 3			Short circuit current	kA	5
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 3			Fuse rating	А	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 & Protection 3	Contact rating of au	ixiliary contacts according to UL			A600 - P600
Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Pollution degree	Ambient conditions				
Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Pollution degree	Temperature				
min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3	•	Operating temperature			
Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3			min	°C	-50
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3			max	°C	70
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3		Storage temperature			
Max altitudem3000Resistance & Protection3			min	°C	-60
Resistance & Protection 3 Pollution degree 3			max	°C	80
Resistance & Protection 3 Pollution degree 3	Max altitude			m	3000
Pollution degree 3	Resistance & Prote	ection			
					3
	Dimensions				



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



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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BF1810A024 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT

CULus EAC ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		А	32
Operational current le			
	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)	A	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	A	17
	48V	A	15
	75V	A	15
	110V	A	6
IFC may summant to in DC4 with 1/D < 4 may with 2 males in series	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0414	٨	00
	≤24V	A	20
	48V 75V	A	20
	110V	A A	20 13
	220V	A	1
IEC may current lo in DC1 with $I/P < 1$ may with 2 pales in parise	220 V	A	I
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	≤24V	۸	22
	≤24∨ 48V	A A	22
	48 V 75 V	A	22
	110V	A	20 16
	1100	А	10

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

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	220V	А	11	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	2201			
	≤24V	А	22	
	48V	A	22	
	75V	A	20	
	110V	A	18	
	220V	A	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	А	13	
	110V	А	8	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	12	
	220V	А	6	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	13	
	220V	Α	8	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	Α	20	
Making capacity (RMS value)		Α	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	
	AC3	W	0.8	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	0.8	



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

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Maximalian		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	· · · · · · · · · · · · · · · · · · ·	min	mm²	1
		max	mm²	4
	ation according to JEC/EN COE20			IP20 when
Power terminal prote	ection according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra
				35mm
Weight			g	362
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thormol ourront Ith			~ ~	10
Thermal current lth	osignation		A	10 A600 B600
IEC/EN 60947-5-1 d	-		A	10 A600 - P600
	-	220.1/		A600 - P600
IEC/EN 60947-5-1 d	-	230V	A	A600 - P600 3
IEC/EN 60947-5-1 d	-	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 d Operating current AC	215		A	A600 - P600 3
IEC/EN 60947-5-1 d	215	400V 500V	A A A	A600 - P600 3 1.9 1.4
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 d Operating current AC	C15 C12	400V 500V 110V	A A A A	A600 - P600 3 1.9 1.4 5.7
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V 110V	A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 d Operating current AC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operations Mechanical life	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C15 C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	215	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	215 C12 C13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	215 C12 C13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

Rated AC voltage at 5	50/60Hz		V	48
AC operating voltage				
	of 50/60Hz coil powered at 50			
	pick-u	-	0/110	80
		mir max		80 110
	drop-o		× /005	110
		mir	n %Us	20
		max		55
	of 50/60Hz coil powered at 60	Hz		
	pick-u			
		mir	n %Us	85
		max	k %Us	110
	drop-o	out		
		mir		20
		ma:	k %Us	55
AC average coil cons	•			
	of 50/60Hz coil powered at 50			75
		in-rust		75
		holding	g VA	9
	of 50/60Hz coil powered at 60	in-rusł	n VA	70
		holding		70 6.5
	of 60Hz coil powered at 60Hz		j va	0.0
		in-rusl	n VA	75
		holding		9
Dissipation at holding	≤20°C 50Hz		W	2.5
			~ ~ ~	
Max cycles frequency			, , , , , , , , , , , , , , , , , , ,	
Max cycles frequency Mechanical operation			cycles/h	
Mechanical operation Operating times				
Mechanical operation Operating times	control in AC			
Mechanical operation Operating times	control	-	cycles/h	3600
Mechanical operation Operating times	control in AC	mir	cycles/h	3600 8
Mechanical operation Operating times	control in AC Closir	mir ma:	cycles/h	3600
Mechanical operation Operating times	control in AC Closir	mir ma: ing NO	cycles/h n ms c ms	3600 8 24
Mechanical operation Operating times	control in AC Closir	mir ma: ing NO mir	cycles/h n ms c ms n ms	3600 8 24 10
Mechanical operation Operating times	control in AC Closir Openi	mir ma: ing NO mir ma:	cycles/h n ms c ms n ms	3600 8 24
Mechanical operation Operating times	control in AC Closir	mir ma: ing NO mir ma: ng NC	cycles/h n ms k ms n ms k ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closir Openi	mir ma: ing NO mir ma: ng NC mir	cycles/h m ms k ms m ms k ms m ms	3600 8 24 10 20 14
Mechanical operation Operating times	control in AC Closir Openi Closir	mir ma: ing NO mir ma: ng NC	cycles/h m ms k ms m ms k ms m ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closir Openi Closir	mir ma: ing NO mir ma: ng NC mir ma:	cycles/h m ms ms ms ms ms ms ms ms	3600 8 24 10 20 14
Mechanical operation Operating times	control in AC Closir Openi Closir	mir ma: ing NO mir ma: ng NC mir ma: ing NC	cycles/h m ms m ms m ms m ms m ms m ms	3600 8 24 10 20 14 28
Mechanical operation Operating times Average time for Us of Verage time for Us of UL technical data	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ng NC mir ma: ing NC mir	cycles/h m ms m ms m ms m ms m ms m ms	3600 8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us of Verage time for Us of UL technical data	control in AC Closir Openi Closir	mir ma: ing NO ng NC mir ma: ing NC mir ma: ma:	cycles/h m ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of Verage time for Us of UL technical data	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: at 480\	cycles/h m ms ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18 7 18
Mechanical operation Operating times Average time for Us of UL technical data Full-load current (FLA	ontrol in AC Closir Openi Closir Openi	mir ma: ing NO ng NC mir ma: ing NC mir ma: ma:	cycles/h m ms ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of UL technical data Full-load current (FLA	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: at 480\	cycles/h m ms ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18 7 18
Mechanical operation Operating times Average time for Us of UL technical data Full-load current (FLA	ontrol in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: ing NC at 480\ at 600\	cycles/h m ms m ms m ms m ms m ms m ms m ms m m	3600 8 24 10 20 14 28 7 18 14 17
Mechanical operation Operating times Average time for Us of UL technical data Full-load current (FLA	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: at 480\ at 600\ 110/120\	cycles/h ms ms ms ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18 7 18 14 17 1
Mechanical operation Operating times Average time for Us of Verage time for Us of UL technical data	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: ing NC at 480\ at 600\	cycles/h ms ms ms ms ms ms ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18 14 17
Mechanical operation Operating times Average time for Us of UL technical data Full-load current (FLA	control in AC Closir Openi Closir Openi	mir ma: ing NO mir ma: ing NC mir ma: at 480\ at 600\ 110/120\	cycles/h m ms m ms m ms m ms m ms m ms m ms m m	3600 8 24 10 20 14 28 7 18 7 18 14 17 1

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The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

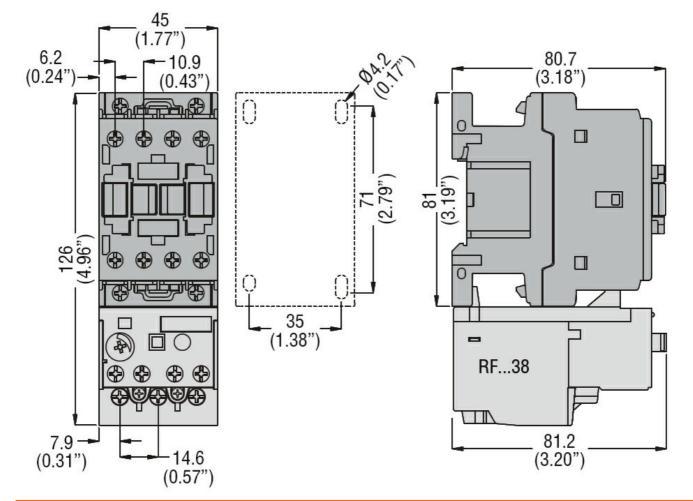


BF1810A048 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

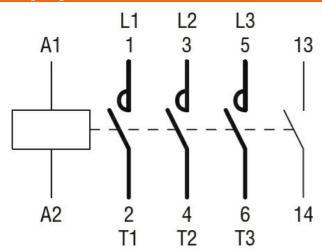
Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault X High fault Short circuit current KA 100 Fuse rating A 60 60 Fuse class J J Standard fault Stort circuit current KA 5 Standard fault Short circuit current KA 5 Standard fault A 600 Ambient conditions Fuse rating A 80 A 600 A Contact rating of auxiliary contacts according to UL A A 80 A A A Contact rating of auxiliary contacts according to UL Max A B A A Temperature Min °C -50 -50 -50 -50 -50 -50 -50 -50 -50 -50					
General USE Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC voltage V 250 DC voltage V 250 DC voltage V 600 AC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault KA 100 Fuse rating A 600 600 Fuse rating A 80 0 Contact rating of auxiliary contacts according to UL KA 5 Arbient conditions Fuse rating A 80 Temperature min °C -50 Max altitude max °C -50 Max altitude max °C -60 Pollution degree min °C -60 <td></td> <td></td> <td>220/230V</td> <td>HP</td> <td>5</td>			220/230V	HP	5
General USE Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse rating A 60 Fuse class J J Standard fault Short circuit current kA 5 Standard fault Short circuit current kA 5 A600 - P600 Ambient conditions Temperature A600 - P600 A600 - P600 Ambient conditions Temperature min °C -50 Temperature Max °C 70 Storage temperature min °C -60 Max altitude max °C 80 Max 3			460/480V	HP	10
Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault X High fault Short circuit current KA 100 Fuse rating A 60 60 Fuse class J J Standard fault Stort circuit current KA 5 Standard fault Short circuit current KA 5 Standard fault A 600 Ambient conditions Fuse rating A 80 A 600 A Contact rating of auxiliary contacts according to UL A A 80 A A A Contact rating of auxiliary contacts according to UL Max A B A A Temperature Min °C -50 -50 -50 -50 -50 -50 -50 -50 -50 -50			575/600V	HP	15
AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V KA 100 High fault Short circuit current KA 100 Fuse rating A 60 Fuse rating tault KA 100 Standard fault Short circuit current KA 5 Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions X 70 Temperature min °C -50 max °C 70 Storage temperature min °C -50 max °C 70 -50 Storage temperature min °C -60 Max altitude max %C 80 Resistance & Protection max 3	General USE				
Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault A 100 Fuse rating A 60 600 Fuse rating A 60 600 Fuse rating A 60 600 Fuse rating A 60 60 Fuse rating A 60 60 Fuse rating A 80 600 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL Max A 600 - P600 Ambient conditions max *C -50 600 Temperature Min *C -50 60 Max min *C -60 60 Max atitude max *C		Contactor			
AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 60 Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C 70 Storage temperature Min °C -60 max °C 80 Max altitude Max al			AC current	А	32
AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Max altitude Max altitude Max altitude Pollution degree Pollution degree A 3		Auxiliary contacts			
DC voltage DC current V 250 DC current Short-circuit protection fuse, 600V High fault A 1 Short circuit current Fuse rating KA 100 Fuse rating A 60 Fuse class J J Standard fault Short circuit current Fuse rating KA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions X 70 Temperature V -50 Max min °C -50 Max % -60 -60 Max % -60 -60 Max altitude m 3000 -60			AC voltage	V	600
DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse rating A 60 Fuse rating tault Short circuit current kA 5 5 Standard fault Short circuit current kA 5 5 Contact rating of auxiliary contacts according to UL A600 - P600 A600 - P600 Ambient conditions A600 - P600 A600 - P600 Temperature Operating temperature min °C -50 Max °C 70 Storage temperature min °C -60 Max altitude m 3000 3 3			AC current	А	10
Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Max altitude Max altitude Max altitude Pollution degree Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Max altitude Max altitude Pollution degree Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Max altitude Max altitude Pollution degree 3			DC voltage	V	250
High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Fuse rating A 80 Contact rating of auxiliary contacts according to UL KA 5 Ambient conditions A600 - P600 Ambient conditions A600 - P600 Operating temperature Min °C -50 Max °C 70 70 Storage temperature min °C -60 Max altitude m 3000 3			DC current	А	1
Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature Operating temperature Min Operating temperature min °C -50 Max altitude min °C 60 Max altitude m 3000	Short-circuit protec	tion fuse, 600V			
Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature Operating temperature Min Operating temperature min °C -50 Max altitude min °C 60 Max altitude m 3000		High fault			
Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature min °C -50 Max °C 70 -50 Storage temperature min °C -60 Max altitude m 3000 -600 Resistance & Protection m 3 -600		5	Short circuit current	kA	100
Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions Fuse rating A600 - P600 Temperature Operating temperature min °C -50 Max altitude min °C -60 max °C 80 Max altitude m 3000 3 3 3			Fuse rating	А	60
Short circuit current Fuse rating kA 5 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions - Temperature 0 Operating temperature - min °C -50 max °C 70 Storage temperature - - min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection - 3			Fuse class		J
Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions		Standard fault			
Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Min °C -50 max °C 70 Storage temperature Min °C -60 max °C 80 Max altitude Max altitude Max altitude Pollution degree 3			Short circuit current	kA	5
Contact rating of auxiliary 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 3			Fuse rating	А	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 & Protection Pollution degree 3	Contact rating of au	ixiliary contacts according to UL			A600 - P600
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					
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	Temperature				
min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude Max altitude Max altitude Resistance & Protection Pollution degree 3	·	Operating temperature			
Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3			min	°C	-50
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3			max	°C	70
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3		Storage temperature			
max°C80Max altitudem3000Resistance & Protection3			min	°C	-60
Max altitudem3000Resistance & Protection3			max		
Resistance & Protection Pollution degree 3	Max altitude		-		
Pollution degree 3		ection			
					3
	Dimensions				-



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT



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
The eb	evertevistics described in this description as a chiest to undetex as modifications at any time. The descriptions technical and



BF1810A048 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

CULus EAC ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		<u>V</u>	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			05
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		А	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	A	8.5
Rated operational power AC-3 (T≤55°C)	0001/		
	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)	0001/		
	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	.0.434		
	≤24V	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0.01		
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	А	16



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

	220V	А	11
IEC max current le in DC1 with $L/R \le 1$ ms 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 \leq 15ms with 2 poles in series			
	≤24V	А	15
	48V	A	13
	48V 75V	A	13
	110V	A	8
	220V	A	8 2
	2200	A	2
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series	-0.0.7	^	4.0
	≤24V	A	18
	48V	A	18
	75V	А	16
	110V	А	12
	220V	A	6
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series			
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	А	13
	220V	А	8
Short-time allowable current for 10s (IEC/EN60947-1)		А	200
Protection fuse			
	gG (IEC)	А	32
	aM (IEC)	А	20
Making capacity (RMS value)		Α	180
Breaking capacity at voltage			
	440V	А	144
	500V	A	120
	690V	A	94
	090 v		
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)		147	0.0
Power dissipation per pole (average value)	lth	W	2.6
	lth AC3	W W	2.6 0.8
	AC3	W	0.8
Power dissipation per pole (average value) Tightening torque for terminals	AC3 min	W Nm	0.8
	AC3 min max	W Nm Nm	0.8 1.5 1.8
	AC3 min	W Nm Nm Ibin	0.8 1.5 1.8 1.1
Tightening torque for terminals	AC3 min max	W Nm Nm	0.8 1.5 1.8
Tightening torque for terminals	AC3 min max min	W Nm Nm Ibin	0.8 1.5 1.8 1.1
	AC3 min max min	W Nm Nm Ibin	0.8 1.5 1.8 1.1
Tightening torque for terminals	AC3 min max min max	W Nm Nm Ibin Ibin	0.8 1.5 1.8 1.1 1.5



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

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0.74 max Ibin Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 10 Flexible w/o lug conductor section mm² 1 min 6 max mm² Flexible c/w lug conductor section mm² 1 min max mm² 4

	max	111111	4
Flexible with insulated spade lug conductor section			
	min	mm²	1
	max	mm²	4
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°

	anowabic	±00
Fixing		Screw / DIN rail
Fixing		35mm
Weight	g	359
Conductor conting		

Conductor section

AWG/kcmil conductor section

	max		10
Auxiliary contact characteristics			
Thermal current Ith		Α	10
IEC/EN 60947-5-1 designation			A600 - P600
Operating current AC15			
	230V	А	3
	400V	Α	1.9
	500V	Α	1.4
Operating current DC12			
	110V	А	5.7
Operating current DC13			
	24V	А	5.7
	48V	А	2.9
	60V	Α	2.3
	110V	А	1.25
	125V	Α	1.1
	220V	А	0.55
	600V	А	0.2
Operations			
Mechanical life		cycles	2000000
Electrical life		cycles	1600000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1600000
	mechanical load	cycles	2000000
Mirror contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating			



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 min %Us 85 85 drop-out min %Us 85 drop-out min %Us 85 drop-out min %Us 85 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush %U 9 AC average coil consumption at 20°C of 50/60Hz coil powered at 60Hz in-rush VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 9 of 60Hz coil powered at 60Hz in-rush VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 3600 Closing NO min ms 8 Max cycles frequency wechanical operation cycles frequency 3600 Closing NO min ms 24 Opening NO max	Rated AC voltage at 5	0/60Hz		V	110
pick-up max %Us 80 drop-out max %Us 10 max %Us 55 of 50/60Hz coil powered at 60Hz max %Us 10 max %Us 10 10 drop-out min %Us 10 drop-out max %Us 20 max %Us 10 10 drop-out min %Us 20 max %Us 55 10 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz min-rush VA 75 holding VA 75 holding VA 75 of 50/60Hz coil powered at 60Hz in-rush VA 75 holding VA 75 holding VA 9 Dissipation at holding s20°C 50Hz W 2.5 Wax cycles frequency wax greas frequency max ms<	AC operating voltage				
min %Us 80 max %Us 110 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 max %Us 85 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz min %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 folding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 75 holding VA 75 holding VA 75 port 60Hz coil powered at 60Hz in-rush VA 75 port 60Hz coil powered at 60Hz in-rush VA 75 port 60Hz coil powered at 60Hz in-rush VA 75 port guing scill wax goles frequency wax goles frequency max ms 20 Closing NO min ms<		-			
drop-out max %Us 110 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz min %Us 100 AC average coil consumption at 20°C of 50/60Hz coil powered at 60Hz in-rush VA 75 adding VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 in/biding VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 in/biding VA 75 holding VA 9 of 60Hz coil powered at 60Hz in-rush VA 70 wechanical operation cycles/h 3600 0 Operating times wechanical operation cycles/h 3600 Closing NO max ms 20 Closing NC min ms 14 max ms <t< td=""><td></td><td>pick-up</td><td>min</td><td>0/110</td><td>90</td></t<>		pick-up	min	0/110	90
drop-out max %Us 20 of 50/60Hz coil powered at 60Hz min %Us 85 pick-up min %Us 85 drop-out min %Us 55 AC average coil consumption at 20°C min %Us 55 AC average coil consumption at 20°C in-rush VA 75 of 50/60Hz coil powered at 60Hz in-rush VA 75 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 9 6.5 of 60Hz coil powered at 60Hz in-rush VA 70 holding VA 70 holding VA 9 of 60Hz coil powered at 60Hz in-rush VA 70 10 poletating times wetage time for Us control in-rush VA 70 Acceles frequency max ms 24 9 10 Acceles frequency max ms 24 10 10 Acclosing NO min					
min %Us 20 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 9 Dissipation at holding \$20°C 50Hz W 2.5 3600 20 Opening NO min ms 8 3600 20 Opening NO min ms 8 3600 20 Opening NO min ms 10 3600 20 20 20		drop-out	IIIdX	/005	110
max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 9 ad 50/60Hz coil powered at 60Hz in-rush VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 9 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 0 Operating times VA 9 0 Average time for Us control in-rush VA 75 Average time for Us control min ms 8 Opening NO min ms 10 Max cycles requency min ms 12 Opening NC			min	%Us	20
of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max min %Us 20 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding \$20°C 50Hz W 2.5 3600 20 Axe cycles trequency w 2.5 3600 20 Max cycles trequency w 2.5 3600 20 Average time for Us control in AC Closing NO min ms 10 Closing NO min ms 10 30 20 Closing NC min ms 14 30 20 Opening NC min ms 14 30 36					
pick-up min %Us 85 drop-out min %Us 20 max %Us 20 max %Us 20 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding VA 70 holding VA 70 of 50/60Hz coil powered at 60Hz in-rush VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 polding VA 9 2.5 Max cycles frequency vcles ycles 8 Average time for Us control in-rush vcles 8 Opening NO min ms 8 Opening NO min ms 14 max ms 18 2 Ut technical data res		of 50/60Hz coil powered at 60Hz			
$\begin{tabular}{ c c c } & & & & & & & & & & & & & & & & & & &$		-			
drop-out min %Us 20 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding VA 9 9 9 of 50/60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 9 Dissipation at holding \$20°C 50Hz W 2.5 3600 Operating times VX 2.5 3600 Operating times VX 2.5 3600 Operating times VX 2.5 3600 Operating NO min ms 10 max ms<			min	%Us	85
min %Us 20 max AC average coll consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding vA 75 in-rush VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 folding VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 folding VA 75 of 60Hz coil powered at 60Hz in-rush VA 75 folding VA 75 policisipation at holding ≤20°C 50Hz W 2.5 % % 8600 Operating times			max	%Us	110
max %/Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush Nolding VA 75 Nolding of 50/60Hz coil powered at 60Hz in-rush Nolding VA 70 Nolding VA 70 Nolding of 60Hz coil powered at 60Hz in-rush Nolding VA 75 Nolding VA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 Dissipation at holding \$20°C 50Hz W 2.5 WA 9 2.5 Max cycles frequency Werage time for Us control in AC Closing NO min ms 8 Opening NO Min ms 10 10 10 10 Opening NC Min ms 14 15		drop-out			
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 75 holding VA 9 of 50/60Hz coil powered at 60Hz in-rush VA 70 holding VA 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz We chanical operation operating times Average time for Us control in AC Closing NO Min ms 8 max ms 24 Opening NO Min ms 10 max ms 24 Opening NC Min ms 14 max ms 28 Opening NC Min ms 7 max ms 18 UL technical data 			min		
of 50/60Hz coil powered at 50Hz in-rush holding VA 9 of 50/60Hz coil powered at 60Hz in-rush holding VA 70 in-rush of 60Hz coil powered at 60Hz in-rush holding VA 9 of 60Hz coil powered at 60Hz in-rush holding VA 9 of 60Hz coil powered at 60Hz in-rush holding VA 9 of 60Hz coil powered at 60Hz in-rush holding VA 9 of 60Hz coil powered at 60Hz wa 75 of 60Hz coil powered at 60Hz wa 9 verage trequency Wa 9 Wechanical operation cycles/frequency/frequency Average time for Us control in AC Closing NO Max ms 8 Opening NO max ms max ms 20 Closing NC min ms 10 max ms 28 20 Opening NC min ms 18 Ut etchnical data ms 7 18 Ut etchnical data 14 16 17 fielded mechanical performance in single-phase AC motor 110/120V HP 1 <td></td> <td></td> <td>max</td> <td>%Us</td> <td>55</td>			max	%Us	55
in-rush holding VA 75 holding of 50/60Hz coil powered at 60Hz in-rush holding VA 70 holding in-rush of 60Hz coil powered at 60Hz in-rush holding VA 75 holding of 60Hz coil powered at 60Hz in-rush holding VA 75 holding in-rush holding VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency W 2.5 Max cycles frequency W 2.5 Max cycles frequency Closing NO wrs In AC Closing NO max ms Opening NO min ms 10 max ms Max cycles frequency Closing NC min ms 14 max Opening NC min ms 14 max ms 14 max Opening NC min ms 14 max 17 Ut technical data max ms 14 max 17 fielded mechanical performance for single-phase AC motor 110/120V HP 1 230V 14 if or three-phase AC motor 110/120V HP 1 230V 14	AC average coil consu				
$\begin{tabular}{ c c c c } \hline c c c c c c c c c c c c c c c c c c $		of 50/60Hz coil powered at 50Hz			
of 50/60Hz coil powered at 60Hz in-rush holding VA 70 holding of 60Hz coil powered at 60Hz in-rush holding VA 75 holding via cycles frequency W 2.5 Max cycles frequency W 2.5 Max cycles frequency W 2.5 Verage time for Us control in AC c/closing NO min ms 8 max ms 24 Opening NO min ms 10 max ms 20 20 20 Closing NO min ms 10 max ms 20 </td <td></td> <td></td> <td></td> <td></td> <td></td>					
$\begin{tabular}{ c c c c c } \hline In-rush holding VA 70 holding VA 6.5 \end{tabular} \\ \hline of 60Hz coil powered at 60Hz & in-rush holding VA 9 \end{tabular} VA 9 \end{tabular} \\ \hline In-rush holding VA 9 \end{tabular} \\ \hline In-rush holding VA 9 \end{tabular} \\ \hline VA 9 \end{tabular} \\$			holding	VA	9
holding VA 6.5 of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency W 2.5 Vectanical operation cycles/h 3600 Operating times W 2.5 Average time for Us control in AC min ms 8 Closing NO min ms 24 Opening NO min ms 10 Max ms 2.5 3600 Opening NO min ms 2.4 Opening NC min ms 1.0 Max ms 2.5 3600 Opening NC min ms 1.4 Max ms 1.4 3 Opening NC min ms 7 Max ms 1.8 3 U technical data min ms 7 Tillod current (FLA)		or 50/60Hz coll powered at 60Hz		1/4	70
of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Wechanical operation Closing NO in AC Closing NO in AC Closing NO in Ms 10 max ms 24 Opening NO min ms 10 max ms 28 Closing NC min ms 14 max ms 28 Opening NC min ms 18 U technical data Lt technical data for single-phase AC motor if 110/120V HP 1 230V HP 3 for three-phase AC motor					
in-rush holding VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Wax cycles frequency We chanical operation cycles/h 3600 Departing times Average time for Us control in AC Closing NO min ms 8max 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 JL technical data Full-load current (FLA) for three-phase AC motor tilloload current (FLA) for three-phase AC motor $tilloload current (FLA) for three-phase AC motortilloload current (FLA) for three-phase AC motor$		of 60Hz coil powered at 60Hz	noiding	٧A	0.5
holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency VV 3600 Operating times S 3600 Average time for Us control in AC VI 3600 Closing NO min ms 8 max Opening NO min ms 10 max Max 0 0 0 Opening NO min ms 10 max Max 20 0 0 Closing NC min ms 14 max Max 28 0 0 Opening NC min ms 14 Max ms 18 0 JL technical data min ms 7 Full-load current (FLA) for three-phase AC motor at 800V A 14 it 600V A 17 110/120V HP 1 fielded mechanical performance it 600V A 17 10 it or three-phas		of ouriz con powered at ouriz	in-rush	١/Δ	75
Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO Min ms 8 max ms 24 Opening NO Closing NC Min ms 10 max ms 20 Closing NC Min ms 14 max ms 28 Opening NC Min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor Tillo/120V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3					
Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO Closing NC 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) for three-phase AC motor at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor $\frac{110/120V HP 1}{230V HP 3}$	Dissipation at holding	≤20°C 50Hz	lioidiiig		
Mechanical operation cycles/h 3600 Operating times					
Operating times Average time for Us control in AC Closing NO min ms 8 max Max ms 24 Opening NO min ms 10 max Max ms 20 Closing NC min ms 14 max Opening NC min ms 7 Max ms 14 max ms Ut technical data restance 18 14 Full-load current (FLA) for three-phase AC motor at 480V A 14 Yielded mechanical performance at 600V A 17 Yielded mechanical performance 110/120V HP 1 230V HP 3 3 for three-phase AC motor 110/120V HP 3				cvcles/h	3600
in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC Closing NC min ms 14 max ms 28 Opening NC min ms 7 max ms 18 UL technical data Full-load current (FLA) for three-phase AC motor Full-load current (FLA) for three-phase AC motor Full-load current (FLA) for three-phase AC motor Full-load current (FLA) for three-phase AC motor for single-phase AC motor $\frac{110/120V HP 1}{230V HP 3}$				0,000,00	
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min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC Till max ms 28 Opening NC Till for three-phase AC motor Till for three-phase AC motor		ontrol		0,000,11	
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 7 max ms 18 JL technical data Tull-load current (FLA) for three-phase AC motor Till-load current (FLA) for three-phase AC motor Till-load current (FLA) for three-phase AC motor Tilload current (FLA) for three-phase AC motor					
Opening NO min ms 10 max ms 20 Closing NC min ms 14 max ms 28 Opening NC min ms 7 max ms 18 JL technical data JL technical data Full-load current (FLA) for three-phase AC motor full-load current (FLA) for three-phase AC motor for single-phase AC motor for single-phase AC motor 110/120V HP 1 230V HP 3		in AC	C		
$\begin{array}{c} & \mbox{min} & \mbox{ms} & 10 \\ & \mbox{max} & \mbox{ms} & 20 \\ & \mbox{Closing NC} & & & & & \\ & \mbox{min} & \mbox{ms} & 14 \\ & \mbox{max} & \mbox{ms} & 28 \\ & \mbox{Opening NC} & & & & \\ & \mbox{min} & \mbox{ms} & 7 \\ & \mbox{max} & \mbox{ms} & 18 \\ \hline \end{tabular} \\ \hline \e$		in AC			8
Closing NC Min ms 14 max ms 28 Opening NC Min ms 7 max ms 18 JL technical data JL technical data Full-load current (FLA) for three-phase AC motor At 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor I10/120V HP 1 230V HP 3 for three-phase AC motor		in AC Closing N	min max	ms	8
Closing NC min ms 14 max ms 28 Opening NC min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor Tielded mechanical performance for single-phase AC motor 110/120V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 JUI / 230V HP 3		in AC Closing N	min max IO	ms ms	8 24
min ms 14 max ms 28 Opening NC min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 1 1 1 1		in AC Closing N	min max IO min	ms ms ms	8 24 10
Max ms 28 Min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 for three-phase AC motor		in AC Closing No Opening N	min max IO min max	ms ms ms	8 24 10
Opening NC min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor $\frac{110/120V}{230V} HP 1$ $230V HP 3$		in AC Closing No Opening N	min max IO min max C	ms ms ms ms	8 24 10 20
min ms 7 max ms 18 JL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 for three-phase AC motor		in AC Closing No Opening N	min max IO min max C min	ms ms ms ms ms	8 24 10 20 14
max ms 18 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 for three-phase AC motor		in AC Closing N Opening N Closing N	min max IO min max C min max	ms ms ms ms ms	8 24 10 20 14
UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor		in AC Closing N Opening N Closing N	min max IO min max C min max IC	ms ms ms ms ms	8 24 10 20 14 28
at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 3 10		in AC Closing N Opening N Closing N	min max IO min max C Min max IC min	ms ms ms ms ms ms	8 24 10 20 14 28 7
at 480V A 14 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 3 110/120V 10/120V 10/120V for three-phase AC motor 110/120V HP 3 110/120V 10/120V	Average time for Us o	in AC Closing N Opening N Closing N	min max IO min max C Min max IC min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Yielded mechanical performance for single-phase AC motor 110/120V HP 1 230V HP 3 for three-phase AC motor	Average time for Us co JL technical data	in AC Closing N Opening N Closing N Opening N	min max IO min max C Min max IC min	ms ms ms ms ms ms	8 24 10 20 14 28 7
for single-phase AC motor 110/120V HP 1 230V HP 3 for three-phase AC motor	Average time for Us co UL technical data	in AC Closing N Opening N Closing N Opening N	min max IO min max C min max IC min max	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
110/120V HP 1 230V HP 3 for three-phase AC motor	Average time for Us co JL technical data	in AC Closing N Opening N Closing N Opening N	min max IO min max IC min max IC min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
607 for three-phase AC motor	Average time for Us co JL technical data Full-load current (FLA)	in AC Closing N Opening N Closing N Opening N of for three-phase AC motor	min max IO min max IC min max IC min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
for three-phase AC motor	Average time for Us co JL technical data Full-load current (FLA)	in AC Closing No Opening No Closing No Opening No of for three-phase AC motor	min max IO min max IC IC min max at 480V at 600V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
	Average time for Us co JL technical data Full-load current (FLA)	in AC Closing No Opening No Closing No Opening No of for three-phase AC motor	IO IO IO IC IC at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17 1
200/208V HP 5	Average time for Us co UL technical data Full-load current (FLA)	in AC Closing No Opening No Closing No Opening No Opening No of for three-phase AC motor	IO IO IO IC IC at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17 1
	Average time for Us co JL technical data Full-load current (FLA)	in AC Closing No Opening No Closing No Opening No Opening No of for three-phase AC motor	IO min max C min max IC min max IC at 480V at 600V 110/120V 230V	ms ms ms ms ms ms Ms ms HP HP	8 24 10 20 14 28 7 18 14 17 1 3



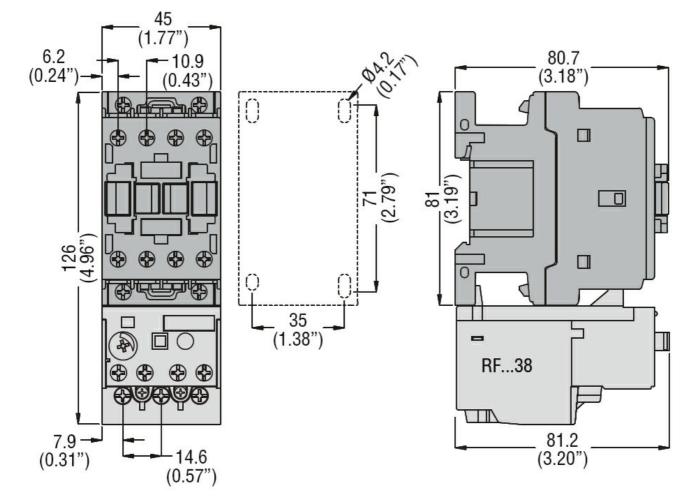
BF1810A110 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protec	tion 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 au	uxiliary 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 & Prote	ection			
Pollution degree				3
<u> </u>				

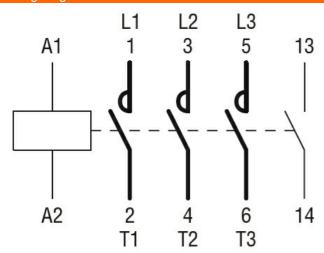
Dimensions



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT



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
The sheet	restariation department in this deputs on a which to undated as medifications at any time. The department to build and



BF1810A110 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

CULus EAC ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		А	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	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	A	-
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	A	16

ENERGY AND AUTOMATION

BF1810A230

	220V	А	11	
IEC max current le in DC1 with $L/R \le 1$ ms with 4 poles in series				
	≤24V	А	22	
	48V	А	22	
	75V	А	20	
	110V	A	18	
	220V	A	13	
IF C may summat be in DC2 DCF with $1/D < 45$ may with 4 males in action	220 V	Λ	15	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	A	12	
	48V	А	11	
	75V	Α	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			
		A	13	
	75V	A	13	
	110V	А	8	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	A	12	
	220V	A	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	А	18	
	48V	Α	18	
	75V	А	16	
	110V	А	13	
	220V	А	8	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	32	
			20	
	aM (IEC)	A		
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	
	AC3	W		
	AU3	٧V	0.8	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

Max number of wires	cimultaneously connectable	max	lbin Nr	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor Section	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	max		10
		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
•				properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra
Waight			~	35mm 358
Weight Conductor section			g	300
Conductor Section	AWG/kcmil conductor section			
	AWG/KCITIII CONductor Section	max		10
Auxiliary contact chai	racteristics	max		10
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC				
- p		230V	А	3
		400V	A	1.9
		500V	А	1.4
Operating current DC	212			
		110V	А	5.7
	10			
Operating current DC	,13			
Operating current DC		24V	А	5.7
Operating current DC		24V 48V	A A	5.7 2.9
Operating current DC		48V 60V		2.9 2.3
Operating current DC		48V 60V 110V	А	2.9 2.3 1.25
Operating current DC		48V 60V 110V 125V	A A A A	2.9 2.3 1.25 1.1
Operating current DC		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
		48V 60V 110V 125V	A A A A	2.9 2.3 1.25 1.1
Operations		48V 60V 110V 125V 220V	A A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life		48V 60V 110V 125V 220V	A A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life		48V 60V 110V 125V 220V	A A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000

BF1810A230



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

Rated AC voltage at 5	0/60Hz		V	230
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/110	20
		min	%Us %Us	20 55
	of 50/60Hz coil powered at 60Hz	max	/005	55
	pick-up			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	····cax	/000	
		min	%Us	20
		max	%Us	55
AC average coil consi	umption at 20°C			
-	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Mechanical operation Operating times	ontrol		cycles/h	3600
			cycles/h	3600
Mechanical operation Operating times	in AC	10	cycles/h	3600
Mechanical operation Operating times				
Mechanical operation Operating times	in AC	min	ms	8
Mechanical operation Operating times	in AC Closing N	min max		
Mechanical operation Operating times	in AC	min max NO	ms ms	8 24
Mechanical operation Operating times	in AC Closing N	min max	ms	8
Mechanical operation Operating times	in AC Closing N	min max NO min max	ms ms ms	8 24 10
Mechanical operation Operating times	in AC Closing № Opening	min max NO min max	ms ms ms	8 24 10
Mechanical operation Operating times	in AC Closing N Opening Closing N	min max NO min max IC min max	ms ms ms ms	8 24 10 20
Mechanical operation Operating times	in AC Closing № Opening	min max NO min max IC min max	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times	in AC Closing N Opening Closing N	min max NO min max IC min max	ms ms ms ms ms	8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us c	in AC Closing N Opening Closing N	min max NO min max IC MC	ms ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us c	in AC Closing N Opening Closing N Opening	min max NO MO IC NC NC min max	ms ms ms ms ms ms	8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us c	in AC Closing N Opening Closing N	min max NO MC NC Min max MC	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c	in AC Closing N Opening Closing N Opening	min max NO MC NC min max MC min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	in AC Closing N Opening Closing N Opening	min max NO MC NC Min max MC	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c	in AC Closing N Opening Closing N Opening	min max NO MC NC min max MC min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	in AC Closing N Opening Closing N Opening	min max NO MO MC NC Min max MC Min max MC Min max MC Min max MC Min Max MC Min Max MC Min Max MC Min Max MC Min Max Max MO Min Max Max Max Min Max Max Min Max Min Max Max Min Max Max Min Min Max Min Max Min Max Min Min Max Min Max Min Max Min Max Min Max Min Max Min Min Max Min Min Max Min Min Max Min Min Max Min Min Min Min Min Min Min Min Min Min	ms ms ms ms ms ms ms as	8 24 10 20 14 28 7 18 14 17
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	in AC Closing N Opening Closing N Opening	min max NO MO Min max NC Min max MC min max at 480V at 600V	ms ms ms ms ms ms a A A HP	8 24 10 20 14 28 7 18 14 17 1
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	in AC Closing N Opening Closing N Opening) for three-phase AC motor	min max NO MO MC NC Min max MC Min max MC Min max MC Min max MC Min Max MC Min Max MC Min Max MC Min Max MC Min Max Max MO Min Max Max Max Min Max Max Min Max Min Max Max Min Max Max Min Min Max Min Max Min Max Min Min Max Min Max Min Max Min Max Min Max Min Max Min Min Max Min Min Max Min Min Max Min Min Max Min Min Min Min Min Min Min Min Min Min	ms ms ms ms ms ms ms as	8 24 10 20 14 28 7 18 14 17
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	in AC Closing N Opening Closing N Opening	min max NO MO Min max NC Min max MC min max at 480V at 600V	ms ms ms ms ms ms a A A HP	8 24 10 20 14 28 7 18 14 17 1

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

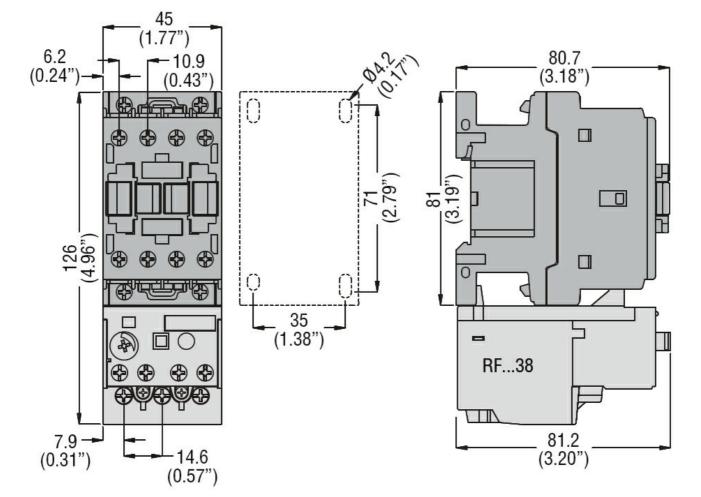


BF1810A230 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

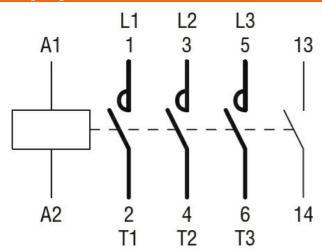
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protec	ction fuse, 600V			
	High fault			
	C C	Short circuit current	kA	100
		Fuse rating	А	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	80
Contact rating of au	uxiliary contacts according to UL	<u>v</u>		A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature	-		
	0	min	°C	-60
		max	°Č	80
Max altitude			m	3000
Resistance & Prote	ection			
Pollution degree				3
Dimensions				-



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT



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



BF1810A230 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

	cULus
	EAC
IM classification	

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Product type designation			Power contactor BF18
Contact characteristics			DFIO
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency		ιτν	0
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	max	A	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	А	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	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0.01	•	00
	≤24V	A	20
	48V	A	20
	75V 110V	A	20 13
	220V	A A	
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	2200	A	1
	≤24V	А	22
	≤24∨ 48V	A	22
	48V 75V	A	20
	110V	A	16
	1100	~	10



BF1810A230V260 1

2	
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC	COIL 50/60HZ,
230VAC, 1NO AUXILIARY CONTACT - IEC/	/EN/BS 60335-1

	220V	А	11	
IEC max current le in DC1 with $L/R \le 1$ ms 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 \leq 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 \leq 15ms with 2 poles in series				
	≤24V	А	15	
	48V	А	13	
	75V	А	13	
	110V	A	8	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series				
	≤24V	А	18	
	48V	A	18	
	75V	A	16	
	110V	A	12	
	220V	A	6	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	2201	71	0	
	≤24V	А	18	
	48V	A	18	
	40V 75V	A	16	
	110V	A	13	
	220V	A	8	
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	200	
Protection fuse		~	200	
FIOLECLIOITIUSE		۸	22	
	gG (IEC)	A	32	
Making consoit (DMC value)	aM (IEC)	A	20	
Making capacity (RMS value)		A	180	
Breaking capacity at voltage				
	440V	A	144	
	500V	A	120	
	690V	A	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	Ith	W	2.6	
	AC3	W	0.8	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Tightening torque for terminals				
Tightening torque for terminals	min	Nm	1.5	
Tightening torque for terminals	min max	Nm	1.8	
Tightening torque for terminals	min	Nm Ibin	1.8 1.1	
	min max	Nm	1.8	
	min max min	Nm Ibin	1.8 1.1	
	min max min	Nm Ibin	1.8 1.1	
Tightening torque for terminals	min max min max	Nm Ibin Ibin	1.8 1.1 1.5	



BF1810A230V260 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT - IEC/EN/BS 60335-1

Max augeben of the		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			10
	Elevitete over her en eleviter en etier	max		10
	Flexible w/o lug conductor section			4
		min	mm²	1
	Flexible c/w lug conductor section	max	mm²	6
	Flexible c/w lug conductor section	min	mm²	1
		min	mm²	
	Elevible with insulated anode lug conductor acction	max		4
	Flexible with insulated spade lug conductor section	min	mm²	1
				1
		max	mm²	4 IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				property wired
Operating position				
		normal		Vertical plan
		allowable		±30°
				Screw / DIN rai
Fixing				35mm
Weight			g	358
Conductor section			3	
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC				
		230V	А	3
		400V	А	1.9
		500V	Α	1.4
Operating current DC	:12	500V	A	1.4
Operating current DC	12	500V 110V		
			A	1.4 5.7
Operating current DC Operating current DC		110V	A	5.7
		110V 24V	A	5.7 5.7
		110V 24V 48V	A A A	5.7 5.7 2.9
		110V 24V 48V 60V	A A A A	5.7 5.7 2.9 2.3
		110V 24V 48V 60V 110V	A A A A A	5.7 5.7 2.9 2.3 1.25
		110V 24V 48V 60V 110V 125V	A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1
		110V 24V 48V 60V 110V 125V 220V	A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC		110V 24V 48V 60V 110V 125V	A A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		110V 24V 48V 60V 110V 125V 220V	A A A A A A A A cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life		110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	213	110V 24V 48V 60V 110V 125V 220V	A A A A A A A A cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data		110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data	213 10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B ²	213 10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B ²	213 10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000

ENERGY AND AUTOMATION

BF1810A230V260 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT - IEC/EN/BS 60335-1

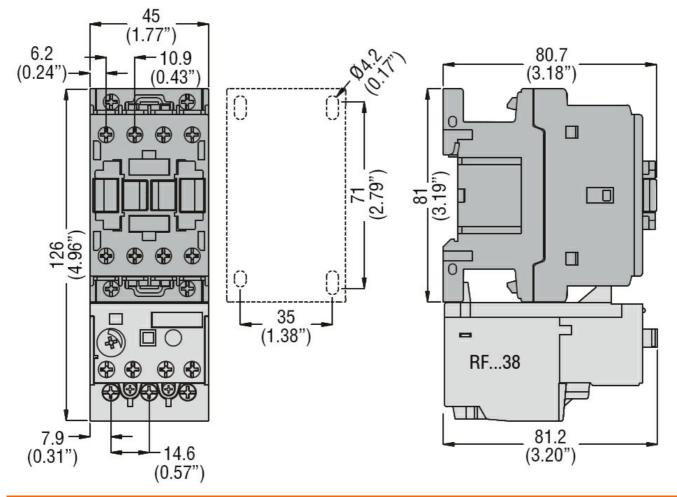
Rated AC voltage at	60Hz		V	230
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
	dana aut	max	%Us	110
	drop-out	min	0/110	20
		min	%Us %Us	20 55
AC average coil con	sumption at 20°C	max	%05	55
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	a ≤20°C 50Hz		W	2.5
Max cycles frequenc				
Mechanical operatior			cycles/h	3600
Operating times				
Average time for Us	control			
	in AC			
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
	Opening NC	max	ms	28
		min	ms	7
		max	ms	18
UL technical data		max		
	A) for three-phase AC motor			
, ,	, ,	at 480V	А	14
		at 600V	А	17
Yielded mechanical	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
0		575/600V	HP	15
General USE	Constanton			
	Contactor		^	22
	Auviliant contacta	AC current	A	32
	Auxiliary contacts		V	600
		AC voltage AC current	V	600 10
		DC voltage	A V	250
		DC voltage DC current	A	1
Short-circuit protectio		Do canelit		•

Short-circuit protection fuse, 600V High fault



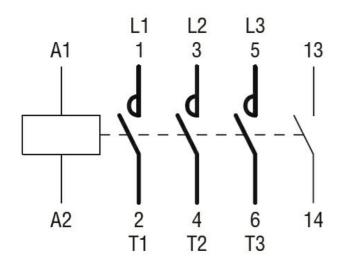
BF1810A230V260 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT - IEC/EN/BS 60335-1

	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 auxiliary 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			
Pollution degree			3
Dimensions			



Wiring diagrams





Certifications and compliance

Compliance

Compliance	
	CSA C22.2 n° 60947-1
	CSA C22.2 n° 60947-4-1
	IEC/EN/BS 60335-1
	IEC/EN/BS 60947-1
	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
	EAC
FTIM classification	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		А	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	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	Α	15
	75V	Α	15
	110V	А	6
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	20
	48V	A	20
	75V	A	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	A	16



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

	220V	А	11	
IEC max current le in DC1 with $L/R \le 1$ ms 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 \leq 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	А	13	
	110V	А	8	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series		-		
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	A	12	
	220V	A	6	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series				
	≤24V	А	18	
	48V	A	18	
	75V	A	16	
	110V	A	13	
	220V	A	8	
Short-time allowable current for 10s (IEC/EN60947-1)		A	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	A	20	
Making capacity (RMS value)		A	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	A	120	
	690V	A	94	
Resistance per pole (average value)	0001	mΩ	2.5	
Power dissipation per pole (average value)		11132	2.0	
· ····· ······························	lth	W	2.6	
	AC3	W	2.0 0.8	
Tightening torque for terminals	700	vv	0.0	
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.0	
	max	Ibin	1.5	
Tightening torque for coil terminal	Παλ		1.0	
	min	Nm	0.8	
		Nm	0.8 1	
	max min	Ibin	0.8	
	111111		0.0	



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

Moy purchas of using		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		·
		min	mm²	1
		max	mm²	4
				IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra
				35mm
Weight			g	367
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics		•	10
Thermal current Ith			A	10
IEC/EN 60947-5-1 de				A600 - P600
Operating current AC	15	0001		0
		230V 400V	A	3
		400V 500V	A A	1.9 1.4
Operating current DC	12	500 v	A	1.4
Operating current DC		110V	А	5.7
Operating current DC	13	1100	~	5.7
operating current DC		24V	А	5.7
		24 V	A	2.9
		<u>/8</u> \/	A	
		48V 60V		
		60V	А	2.3
		60V 110V	A A	2.3 1.25
		60V 110V 125V	A A A	2.3 1.25 1.1
		60V 110V 125V 220V	A A A	2.3 1.25 1.1 0.55
Operations		60V 110V 125V	A A A	2.3 1.25 1.1
		60V 110V 125V 220V	A A A A A	2.3 1.25 1.1 0.55 0.2
Mechanical life		60V 110V 125V 220V	A A A A A cycles	2.3 1.25 1.1 0.55 0.2 20000000
Mechanical life Electrical life		60V 110V 125V 220V	A A A A A	2.3 1.25 1.1 0.55 0.2
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	60V 110V 125V 220V	A A A A A cycles	2.3 1.25 1.1 0.55 0.2 20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	60V 110V 125V 220V 600V	A A A A cycles cycles	2.3 1.25 1.1 0.55 0.2 20000000 1600000
Mechanical life Electrical life Safety related data	-	60V 110V 125V 220V 600V	A A A A cycles cycles	2.3 1.25 1.1 0.55 0.2 20000000 1600000
Mechanical life Electrical life Safety related data Performance level B ²	med	60V 110V 125V 220V 600V	A A A A cycles cycles	2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 20000000
	-	60V 110V 125V 220V 600V	A A A A cycles cycles	2.3 1.25 1.1 0.55 0.2 20000000 1600000

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

Rated AC voltage at 5	0/60Hz		V	400
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11-	0.0
		min	%Us	20
	of 50/60Hz apil powered at 60Hz	max	%Us	55
	of 50/60Hz coil powered at 60Hz pick-up			
	ρισκ-αρ	min	%Us	85
		max	%Us	110
	drop-out	тах	/000	110
		min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			
	of 50/60Hz coil powered at 50Hz			
	-	in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
	-00%0 F0LL-	holding	VA	9
Dissipation at holding	≤20°C 50HZ		W	2.5
Max avalas fraguanav				
Max cycles frequency			cycles/b	3600
Mechanical operation			cycles/h	3600
Mechanical operation Operating times	ontrol		cycles/h	3600
Mechanical operation			cycles/h	3600
Mechanical operation Operating times	in AC		cycles/h	3600
Mechanical operation Operating times		min	cycles/h	3600 8
Mechanical operation Operating times	in AC	min max		
Mechanical operation Operating times	in AC		ms	8 24
Mechanical operation Operating times	in AC Closing NO		ms	8 24 10
Mechanical operation Operating times	in AC Closing NO Opening NO	max	ms ms	8 24
Mechanical operation Operating times	in AC Closing NO	max min max	ms ms ms ms	8 24 10 20
Mechanical operation Operating times	in AC Closing NO Opening NO	max min max min	ms ms ms ms ms	8 24 10 20 14
Mechanical operation Operating times	in AC Closing NO Opening NO Closing NC	max min max	ms ms ms ms	8 24 10 20
Mechanical operation Operating times	in AC Closing NO Opening NO	max min max min max	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times	in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us ca	in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Mechanical operation Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us co UL technical data	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms as	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC serformance	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 14 17 1
Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Closing NC Opening NC opening NC opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms as	8 24 10 20 14 28 7 18 14 17
Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC serformance	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 14 17 1

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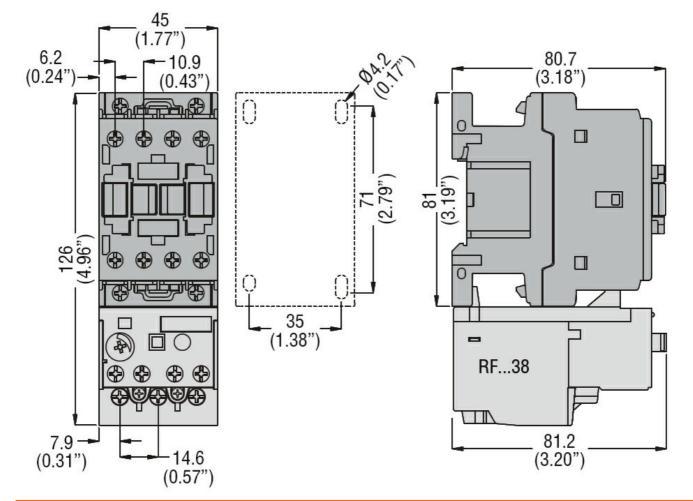
BF1810A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault A 10 Short-circuit protection fuse, 600V Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 60 Fuse class J Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions T T T T Temperature Operating temperature min °C 70 Storage temperature min °C 70 80 Max altitude min °C 80 80 Max altitude min <th></th> <th></th> <th></th> <th></th> <th></th>					
General USE Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault A Fuse rating A 60 Fuse rating A 60 Fuse rating A 80 Contact rating of auxiliary contacts according to UL KA 5 Antiperature Fuse rating A 80 Contact rating of auxiliary contacts according to UL Fuse rating A 80 Antiperature Min °C -50 -50 Max altitude min °C -60 Max altitude min °C -50 Max altitude min °C -60			220/230V	HP	5
General USE Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Contact rating of auxiliary contacts according to UL A A600 - P600 Ambient conditions A600 - P600 Ambient A600 - P600 Temperature Operating temperature min °C -50 Max altitude min °C -60 max °C 70 Storage temperature min °C -60 max °C -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 -60 <td< td=""><td></td><td></td><td>460/480V</td><td>HP</td><td>10</td></td<>			460/480V	HP	10
Contactor AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault A 10 Short-circuit protection fuse, 600V Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 60 Fuse class J Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions T T T T Temperature Operating temperature min °C 70 Storage temperature min °C 70 80 Max altitude min °C 80 80 Max altitude min <td></td> <td></td> <td>575/600V</td> <td>HP</td> <td>15</td>			575/600V	HP	15
AC current A 32 Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault KA 100 Fuse rating A 60 5 Standard fault Short circuit current KA 5 Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 80 Andoine conditions - - - Temperature Operating temperature - - Max altitude min °C - Max altitude max %C 80 Max altitude m 3000 -	General USE				
Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V BC current A 1 High fault Short circuit current kA 100 Fuse rating A 60 600 Fuse rating A 60 600 Standard fault Short circuit current kA 5 Standard fault Short circuit current kA 5 Contact rating of auxiliary contacts according to UL A 80 Ambient conditions A 80 A600 - P600 Ambient conditions A 80 A600 - P600 Ambient conditions X X 70 Temperature min °C -50 Max altitude min °C -60 Max altitude min °C -60 Max altitude min °C 80 Pollution degree 3 3		Contactor			
AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C 70 Storage temperature Min °C -60 max °C 80 Max attitude Max attitude Max attitude Pollution degree Storage temperature Min °C 30 Max attitude Storage temperature Min °C 30 Max attitude			AC current	А	32
AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 100 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Min °C -50 max °C 70 Storage temperature Min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection		Auxiliary contacts			
DC voltage DC current V 250 10 Short-circuit protection fuse, 600V High fault KA 100 Fuse rating A 60 Fuse rating A 60 Fuse class J J Standard fault Short circuit current KA 5 Standard fault Short circuit current KA 5 Contact rating of auxiliary contacts according to UL A 600 - P600 Ambient conditions A 600 - P600 Temperature Operating temperature A 600 - P600 Max altitude min °C -50 Max altitude min °C 80 Max altitude m 3000			AC voltage	V	600
DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse rating A 60 Fuse rating fault Short circuit current kA 5 5 Standard fault Short circuit current kA 5 5 Contact rating of auxiliary contacts according to UL A600 - P600 A600 - P600 Ambient conditions Temperature Min °C -50 Temperature Operating temperature min °C -50 Max altitude min °C -60 max °C 80 Max altitude m 3000 3				А	10
DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse rating A 60 Fuse rating fault Short circuit current kA 5 5 Standard fault Short circuit current kA 5 5 Contact rating of auxiliary contacts according to UL A600 - P600 A600 - P600 Ambient conditions Temperature Min °C -50 Temperature Operating temperature min °C -50 Max altitude min °C -60 max °C 80 Max altitude m 3000 3			DC voltage	V	250
High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Fuse class J Contact rating of auxiliary contacts according to UL KA 5 Ambient conditions A600 - P600 Temperature Operating temperature A600 - P600 Operating temperature min °C -50 Max altitude min °C -60 Max altitude m 3000 3			DC current	А	1
Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature Operating temperature A600 - P600 Max altitude min °C -50 max °C 70 Storage temperature min °C -60 Max altitude m 3000 Resistance & Protection 3	Short-circuit protect	tion fuse, 600V			
Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature Operating temperature A600 - P600 Max altitude min °C -50 max °C 70 Storage temperature min °C -60 Max altitude m 3000 Resistance & Protection 3		High fault			
Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions A600 - P600 Temperature min °C Operating temperature min °C Storage temperature min °C Max attitude m 3000 Resistance & Protection 3		Ū.	Short circuit current	kA	100
Standard fault Short circuit current kA 5 Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions - - Temperature 0 - Operating temperature - - min °C -50 max °C 70 Storage temperature - - min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection - 3			Fuse rating	А	60
Short circuit current Fuse rating kA 5 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions - Temperature 0perating temperature			Fuse class		J
Fuse rating A 80 Contact rating of auxiliary contacts according to UL A600 - P600 Ambient conditions		Standard fault			
Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C 70 Storage temperature Min °C -60 max °C 80 Max altitude Max altitude Max altitude Pollution degree 3			Short circuit current	kA	5
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			Fuse rating	А	80
Temperature Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3	Contact rating of au	ixiliary contacts according to UL			A600 - P600
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	Ambient conditions				
min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3	Temperature				
min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3		Operating temperature			
Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3			min	°C	-50
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3			max	°C	70
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3		Storage temperature			
Max altitudem3000Resistance & Protection3		U .	min	°C	-60
Resistance & Protection Pollution degree 3			max	°C	80
Resistance & Protection Pollution degree 3	Max altitude			m	3000
Pollution degree 3	Resistance & Prote	ection			
					3
	Dimensions				

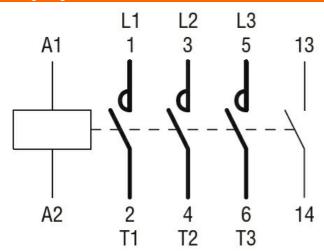
BF1810A400



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT



Wiring diagrams



Certifications and compliance

Complianc	9	
	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		
	200	
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BF1810A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

CULus EAC ETIM classification

ETIM 8.0





Product designation Product type designation			Power contactor BF18
Contact characteristics			BF10
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			0
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	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	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			00
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	A	16



BF1810A02460 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 24VAC, 1NO AUXILIARY CONTACT

11 2201/

	220V	А	11	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	22	
	48V	A	22	
	75V	A	20	
	110V	A	18	
	220V	A	13	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	220 V	~	15	
The max current le in DC3-DC5 with $L/R \leq 15$ ms with 1 poles in series	<0.417		10	
	≤24V	A	12	
	48V	A	11	
	75V	A	11	
	110V	A	2	
	220V	A	-	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series				
	≤24V	A	15	
	48V	А	13	
	75V	А	13	
	110V	А	8	
	220V	А	2	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	A	16	
	110V	A	12	
	220V	A	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series	220 V	Λ	0	
TEC max current le in DC3-DC3 with E/K 3 13ms with 4 poles in series	≤24V	А	18	
	48V	A	18	
	75V	A	16	
	110V	A	13	
	220V	Α	8	
Short-time allowable current for 10s (IEC/EN60947-1)		A	200	
Protection fuse				
	gG (IEC)	Α	32	
	aM (IEC)	Α	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)			2.0	
· onor applyation per pole (average value)	lth	W	2.6	
	AC3	W	2.0 0.8	
Tightoning torque for terminole	AUS	vv	0.0	
Tightening torque for terminals		N I.a.	4 5	
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



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

Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section	sinulaneously connectable		INF.	2
Conductor Section	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section			
	Ŭ	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 properly wired
Mechanical features				property wred
Operating position				
		normal		Vertical plan
		allowable		±30°
Fiving				Screw / DIN ra
Fixing				35mm
Weight			g	356
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics		^	40
Thermal current Ith	agignation		A	10 A600 - P600
IEC/EN 60947-5-1 d Operating current AC				A000 - F000
		230V	А	3
			A	
		400V		19
		400V 500V		1.9 1.4
Operating current DC	012	400V 500V	A	1.9 1.4
Operating current DC	212	500V	A	1.4
Operating current DC		500V	A	1.4
		500V 110V	A	1.4 5.7
		500V 110V 24V	A A A	1.4 5.7 5.7
		500V 110V 24V 48V	A A A A	1.4 5.7 5.7 2.9
		500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1
		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC		500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	213	500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data		500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data	213 10d according to EN/ISO 13489-1	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	213 10d according to EN/ISO 13489-1	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	213 10d according to EN/ISO 13489-1	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000

electric ENERGY AND AUTOMATION

BF1810A02460 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 24VAC, 1NO AUXILIARY CONTACT

Rated AC voltage at 60)Hz		V	24
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up	_		
		min	%Us	80
	drop out	max	%Us	110
	drop-out	min	%Us	20
		max	%Us	20 55
AC average coil consu	mption at 20°C	Шах	/000	00
5	of 60Hz coil powered at 60Hz			
	•	in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤	≨20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO	min	ms	8
		max	ms	24
	Opening NO	тах	mo	2 .
	- F	min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
JL technical data	for three-phase AC motor			
-ull-load culterit (FLA)	tor three-phase AC motor	at 480V	А	14
		at 600V	A	17
lielded mechanical pe	rformance	41 000 V	7.	.,
	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
0 1110-		575/600V	HP	15
General USE				
	Contactor		^	22
		AC current	A	32

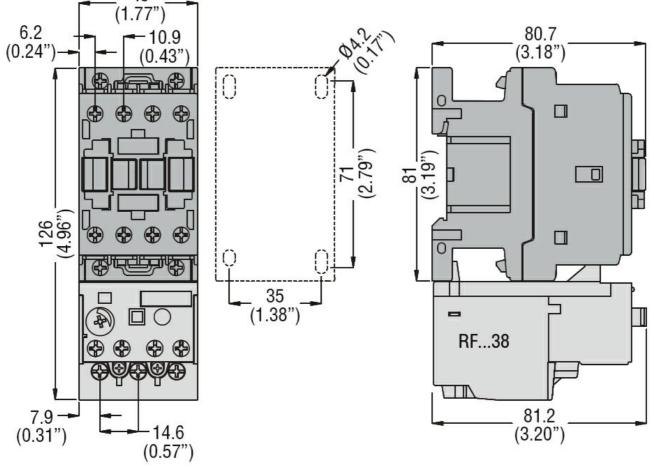
Auxiliary contacts AC voltage V 600 AC current 10 А DC voltage 250 V DC current А 1 Short-circuit protection fuse, 600V

High fault



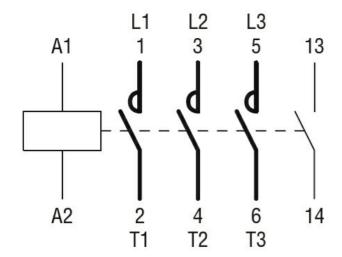
BF1810A02460 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 24VAC, 1NO AUXILIARY CONTACT

	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 auxiliary 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			
Pollution degree			3
Dimensions			
45 (1.77")			



Wiring diagrams





Certifications and compliance

Compliance

eemplianee	
	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





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		A	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	A	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)	000) (
	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	-0.434		
	≤24V	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0.434		
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	20.0.1		00
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	А	16



BF1810A04860 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 48VAC, 1NO AUXILIARY CONTACT

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	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 $L/R \le 15$ ms with 1 poles in series				
	≤24V	А	12	
	48V	А	11	
	75V	А	11	
	110V	А	2	
	220V	Α	-	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series				
	≤24V	А	15	
	48V	А	13	
	75V	А	13	
	110V	А	8	
	220V	Α	2	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	12	
	220V	Α	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	13	
	220V	Α	8	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	Α	20	
Making capacity (RMS value)		А	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	А	120	
	690V	Α	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	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	



BF1810A04860 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 48VAC, 1NO AUXILIARY CONTACT

Mox purch or of other		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil	201		10
	Flovible w/o lug conductor costion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		min	mm²	6
	Flexible c/w lug conductor section	max	111111	0
	Flexible C/W lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max	111111	4
	Flexible with insulated space lug conductor section	min	mm²	1
		max	mm²	4
		max	111111	IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				property wired
Operating position				
		normal		Vertical plan
		allowable		±30°
				Screw / DIN ra
Fixing				35mm
Weight			g	360
Conductor section			3	
	AWG/kcmil conductor section			
		max		10
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	А	1.4
Operating current DC	12			
			А	F 7
		110V	~	5.7
Operating current DC	13	110V	~	5.7
Operating current DC	13	110V 24V	A	5.7
Operating current DC	13			
Operating current DC	13	24V	А	5.7
Operating current DC	13	24V 48V	A A	5.7 2.9
Operating current DC	13	24V 48V 60V	A A A	5.7 2.9 2.3
Operating current DC	13	24V 48V 60V 110V	A A A A	5.7 2.9 2.3 1.25
Operating current DC	13	24V 48V 60V 110V 125V	A A A A	5.7 2.9 2.3 1.25 1.1
Operating current DC	13	24V 48V 60V 110V 125V 220V	A A A A A	5.7 2.9 2.3 1.25 1.1 0.55
Operations	13	24V 48V 60V 110V 125V 220V	A A A A A	5.7 2.9 2.3 1.25 1.1 0.55
Operations Mechanical life	13	24V 48V 60V 110V 125V 220V	A A A A A A	5.7 2.9 2.3 1.25 1.1 0.55 0.2
	13	24V 48V 60V 110V 125V 220V	A A A A A A Cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life Safety related data		24V 48V 60V 110V 125V 220V	A A A A A A Cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 1600000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000



BF1810A04860 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ,

48VAC, 1NO AUXILIARY CONTACT

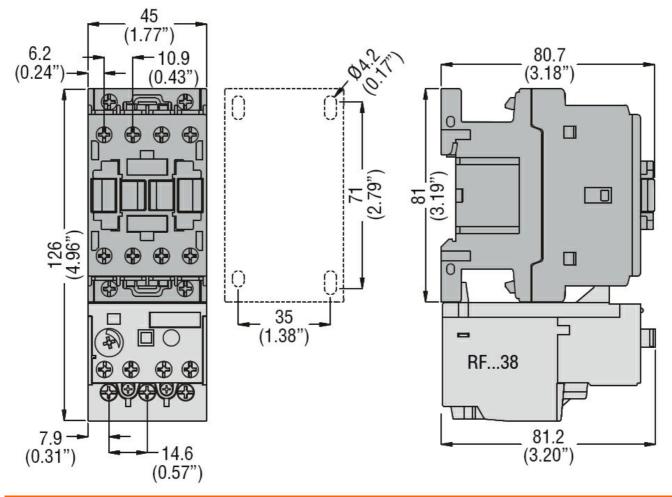
AC operating voltag	t 60Hz			V	48
	of 60Hz coil powered				
		pick-up			
			min	%Us	80
			max	%Us	110
		drop-out			
			min	%Us	20
			max	%Us	55
AC average coil cor	sumption at 20°C				
	of 60Hz coil powered	at 60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holdir	ıg ≤20°C 50Hz			W	2.5
Max cycles frequen					
Mechanical operatio				cycles/h	3600
Operating times				·	
Average time for Us	control				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			
		e per ingrie	min	ms	10
			max	ms	20
		Closing NC	max	into	20
		Clobing NO	min	ms	14
			max	ms	28
		Opening NC	тах	mo	20
		opolingroo	min	ms	7
			max	ms	18
JL technical data			Пах	inio	
	_A) for three-phase AC mo	otor			
			at 480\/	А	14
			at 480V at 600V	A A	14 17
			at 480V at 600V	A A	14 17
	performance				
			at 600V	A	17
	performance		at 600V 110/120V	A HP	17
	performance for single-phase AC n	notor	at 600V	A	17
Yielded mechanical	performance	notor	at 600V 110/120V 230V	A HP HP	17 1 3
	performance for single-phase AC n	notor	at 600V 110/120V 230V 200/208V	A HP HP HP	17 1 3 5
	performance for single-phase AC n	notor	at 600V 110/120V 230V 200/208V 220/230V	A HP HP HP HP	17 1 3 5 5
	performance for single-phase AC n	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	17 1 3 5 5 5 10
Yielded mechanical	performance for single-phase AC n	notor	at 600V 110/120V 230V 200/208V 220/230V	A HP HP HP HP	17 1 3 5 5
Yielded mechanical	performance for single-phase AC n for three-phase AC m	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	17 1 3 5 5 5 10
Yielded mechanical	performance for single-phase AC n	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A HP HP HP HP HP	17 1 3 5 5 5 10 15
Yielded mechanical	performance for single-phase AC n for three-phase AC m Contactor	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	17 1 3 5 5 5 10
Yielded mechanical	performance for single-phase AC n for three-phase AC m	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	A HP HP HP HP HP HP	17 1 3 5 5 5 10 15 32
Yielded mechanical	performance for single-phase AC n for three-phase AC m Contactor	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage	A HP HP HP HP HP A	17 1 3 5 5 5 10 15 32 600
Yielded mechanical	performance for single-phase AC n for three-phase AC m Contactor	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	A HP HP HP HP HP A	17 1 3 5 5 5 10 15 32 600 10
	performance for single-phase AC n for three-phase AC m Contactor	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	A HP HP HP HP HP HP V A V	17 1 3 5 5 10 15 32 600 10 250
Yielded mechanical	performance for single-phase AC m for three-phase AC m Contactor Auxiliary contacts	notor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	A HP HP HP HP HP A	17 1 3 5 5 5 10 15 32 600 10



BF1810A04860 THREE-POLE CONTACTOR

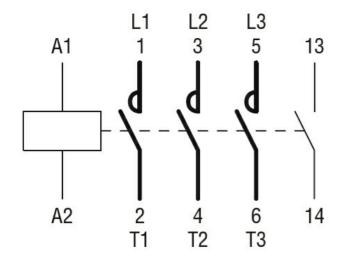
R, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ,	
48VAC, 1NO AUXILIARY CONTACT	

	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 auxiliary 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			
Pollution degree			3
Dimensions			



Wiring diagrams





Certifications and compliance

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





Product designation			Power contactor
Product type designation			BF18
Contact characteristics		N.L.	<u>^</u>
Number of poles		Nr.	3
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		A	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	A	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	A	15
	75V	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	20
	48V	А	20
	75V	A	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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT

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	220V	А	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	22
	48V	A	22
	75V	A	20
	110V	A	18
	220V	A	13
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	220 V	Λ	15
TEC max current le in DC3-DC3 with L/K = 15ms with 1 poles in series	≤24V	А	10
	≤24V 48V	A	12 11
	48V 75V		
		A	11
	110V	A	2
	220V	Α	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series		_	
	≤24V	A	15
	48V	А	13
	75V	Α	13
	110V	Α	8
	220V	А	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	A	12
	220V	A	6
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	2201	7	0
120 max current le in $200-200$ with $2/3 = 10$ ms with 4 poles in series	≤24V	А	18
	48V	A	18
	48V 75V		
		A	16
	110V	A	13
	220V	<u>A</u>	8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse			
	gG (IEC)	A	32
	aM (IEC)	A	20
Making capacity (RMS value)		Α	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
	AC3	Ŵ	0.8
Tightening torque for terminals	////	••	0.0
	min	Nm	1.5
	max	Nm Ihin	1.8
	min	lbin Ibin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT

Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section			INF.	2
Conductor Section	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	max		10
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	Ũ	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Dower terminal protec	ation according to IEC/EN 60520			IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai
				35mm
Weight			g	350
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics		•	4.0
Thermal current Ith			A	10
IEC/EN 60947-5-1 de	•			A600 - P600
Operating current AC	15		_	
				0
		230V	A	3
		400V	А	1.9
	40			
Operating current DC	12	400V 500V	A A	1.9 1.4
		400V	А	1.9
Operating current DC Operating current DC		400V 500V 110V	A A A	1.9 1.4 5.7
		400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
		400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
		400V 500V 110V 24V 48V 60V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
		400V 500V 110V 24V 48V 60V 110V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
		400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC		400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data		400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data	13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	13 10d according to EN/ISO 13489-1 me	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 1600000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000

electric ENERGY AND AUTOMATION

BF1810A12060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT

ENERGY AND AUTOMATION					
Rated AC voltage at 60)Hz			V	120
AC operating voltage					
	of 60Hz coil powered a	at 60Hz			
		pick-up			
			min	%Us	80
			max	%Us	110
		drop-out			
			min	%Us	20
			max	%Us	55
AC average coil consu					
	of 60Hz coil powered a	at 60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding s	≤20°C 50HZ			W	2.5
Max cycles frequency Mechanical operation				ovelee/b	2600
Operating times				cycles/h	3600
Average time for Us co	ontrol				
Average time for 03 ce	in AC				
		Closing NO			
			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)	<i>.</i>				
	for three-phase AC mot	or	(400) (
	for three-phase AC mot	or	at 480V	A	14
Violdod mochanical ra		or	at 480V at 600V	A A	14 17
Yielded mechanical pe	rformance				
Yielded mechanical pe					

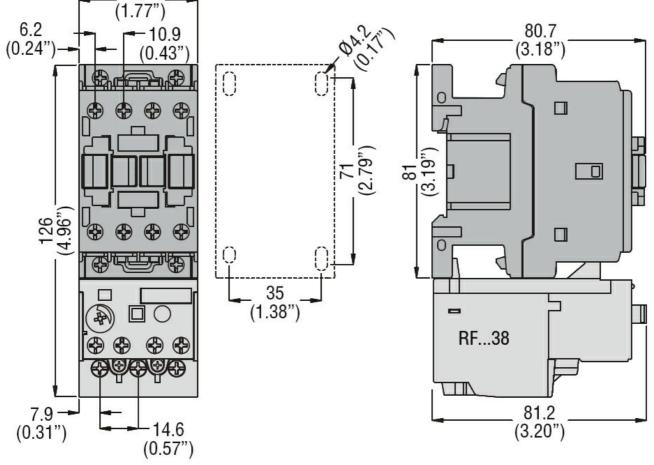
110/120V HP 1 230V ΗP 3 for three-phase AC motor 200/208V HP 5 5 220/230V HP 460/480V HP 10 575/600V ΗP 15 General USE Contactor AC current А 32 Auxiliary contacts AC voltage V 600 AC current 10 А 250 DC voltage V DC current А 1

Short-circuit protection fuse, 600V High fault



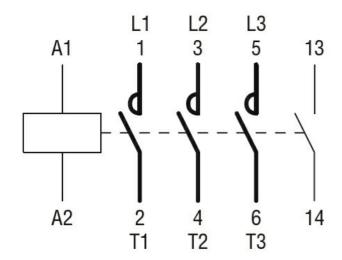
BF1810A12060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT

	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 auxiliary 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			
Pollution degree			3
Dimensions			
45 (1.77")			



Wiring diagrams





Certifications and compliance

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





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		А	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	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	Α	15
	110V	А	6
	220V	Α	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	Α	20
	48V	А	20
	75V	А	20
	110V	А	13
	220V	Α	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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 220VAC, 1NO AUXILIARY CONTACT

BF1810A22060

220V А 11

	220V	A	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	A	18	
	220V	A	13	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				
	≤24V	А	12	
	48V	A	11	
	75V	A	11	
	110V	A	2	
	220V	A	<u> </u>	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V	~		
TEC max current le in DC5-DC5 with E/IC3 T5ms with 2 poles in series	≤24V	А	15	
	48V			
		A	13	
	75V	A	13	
	110V	A	8	
	220V	A	2	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series		_		
	≤24V	A	18	
	48V	A	18	
	75V	Α	16	
	110V	А	12	
	220V	А	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	13	
	220V	А	8	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	А	20	
Making capacity (RMS value)		A	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	A	120	
	690V	A	94	
Resistance per pole (average value)	0001	mΩ	2.5	
Power dissipation per pole (average value)		11152	2.5	
i over alsopation per pole (average value)	lth	W	2.6	
	AC3	W	2.6 0.8	
Tightoping torque for terminele	AU3	٧V	0.0	
Tightening torque for terminals		N lur-	4 5	
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	0.8	



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 220VAC, 1NO AUXILIARY CONTACT

Mox number of wing -	aimultanaayahy aannaatahka	max	lbin Nr	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWG/KCIIII	max		10
	Flexible w/o lug conductor section	max		10
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	Пах		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
_		max		IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				, , , , ,
Operating position				
		normal		Vertical plan
		allowable		±30°
F icilian				Screw / DIN rai
Fixing				35mm
Weight			g	348
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact chara	acteristics			
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	signation			A600 - P600
Operating current AC	15			
		230V	А	3
		400V	А	1.9
		500V	А	1.4
Operating current DC	12			
		110V	А	5.7
Operating current DC	13			
		24V	А	5.7
		48V	А	2.9
		60V	А	2.3
		110V	А	1.25
		125V	А	1.1
		220V	А	0.55
		600V	А	0.2
Operations				
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
	n	nechanical load	cycles	20000000
	ing to IEC/EN 609474-4-1			yes
Mirror contats accordi				J = -
Mirror contats accordi EMC compatibility				yes



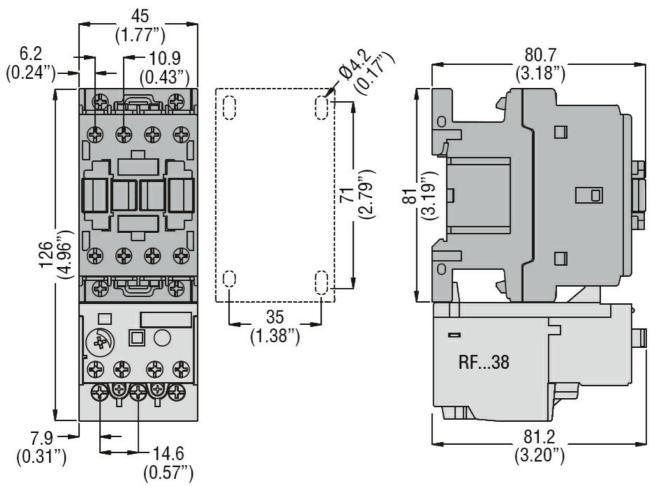
BF1810A22060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 220VAC, 1NO AUXILIARY CONTACT

AC operating voltage	60Hz		V	220
to operating ventage	(
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil cons	sumption at 20°C			
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	j ≤20°C 50Hz		W	2.5
Max cycles frequency	y la			
Mechanical operation			cycles/h	3600
Operating times			-	
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		-	-
	g	min	ms	14
		max	ms	28
	Opening NC			
	epog e	min	ms	7
		max	ms	18
JL technical data				
	A) for three-phase AC motor			
	·, ··· ··· ·· · · · · · · · · · · · · ·	at 480V	А	14
			,,	
		at 600V	Α	17
/ielded mechanical r)erformance	at 600V	A	17
rielded mechanical p		at 600V	A	17
rielded mechanical p	performance for single-phase AC motor			
/ielded mechanical p		110/120V	HP	1
ielded mechanical ۲	for single-phase AC motor			
/ielded mechanical p		110/120V 230V	HP HP	1 3
rielded mechanical ۲	for single-phase AC motor	110/120V 230V 200/208V	HP HP HP	1 3 5
/ielded mechanical μ	for single-phase AC motor	110/120V 230V 200/208V 220/230V	HP HP HP HP	1 3 5 5
ielded mechanical ړ	for single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	1 3 5 5 10
	for single-phase AC motor	110/120V 230V 200/208V 220/230V	HP HP HP HP	1 3 5 5
	for single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	1 3 5 5 10
	for single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	1 3 5 5 10 15
	for single-phase AC motor for three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	1 3 5 5 10
	for single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	1 3 5 5 10 15 32
	for single-phase AC motor for three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage	HP HP HP HP HP A	1 3 5 5 10 15 32 600
	for single-phase AC motor for three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP A	1 3 5 5 5 10 15 32 600 10
Yielded mechanical p	for single-phase AC motor for three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP KP HP	1 3 5 5 10 15 32 600 10 250
	for single-phase AC motor for three-phase AC motor Contactor Auxiliary contacts	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP A	1 3 5 5 5 10 15 32 600 10



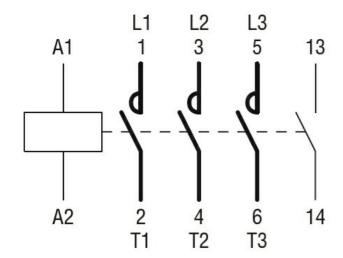
BF1810A22060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 220VAC, 1NO AUXILIARY CONTACT

	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 auxiliary 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			
Pollution degree			3
Dimensions			
45			



Wiring diagrams





Certifications and compliance

Compliance

eemplianee	
	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





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		A	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	A	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	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0.434		
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
IFC may autrent lo in DC1 with 1/D < 1 and with 2 males in a mine	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	2011	^	22
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	А	16



BF1810A23060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ,

230VAC, 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	A	18	
	220V	A	13	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	Α	12	
	48V	А	11	
	75V	А	11	
	110V	A	2	
	220V	A	-	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 2 poles in series				
	≤24V	Α	15	
	48V	А	13	
	75V	А	13	
	110V	A	8	
	220V	A	2	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series				
	≤24V	Α	18	
	48V	А	18	
	75V	А	16	
	110V	A	12	
	220V	A	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	Α	18	
	48V	А	18	
	75V	А	16	
	110V	A	13	
	220V	A	8	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	А	20	
Making capacity (RMS value)		A	180	
		A	100	
Breaking capacity at voltage				
	440V	Α	144	
	500V	А	120	
	690V	А	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)		11132	2.0	
r une une puie (average value)		147	0.0	
	Ith	W	2.6	
	AC3	W	0.8	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	lbin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
		Ibin		
	min		0.8	



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 230VAC, 1NO AUXILIARY CONTACT

Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section			INF.	2
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	max		10
		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
•				properly wired
Mechanical features				
Operating position		-		
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai 35mm
Weight			a	354
Conductor section			g	554
Conductor Section	AWG/kcmil conductor section			
	AVIG/REITHI CONDUCTOR SECTION			10
		may		
Auxiliary contact char	acteristics	max		10
Auxiliary contact char Thermal current Ith	acteristics	max	А	
Thermal current Ith		max	A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation	max	A	
Thermal current Ith	esignation			10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	10 A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation			10 A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation :15	230V 400V	A A	10 A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation :15	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 215 212	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V	A A A A	10 A600 - P600 3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Operations Mechanical life	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 215 212 213	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 215 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B ²	esignation 215 212 213 10d according to EN/ISO 13489-1 me	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B ²	esignation 215 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000



BF1810A23060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ,

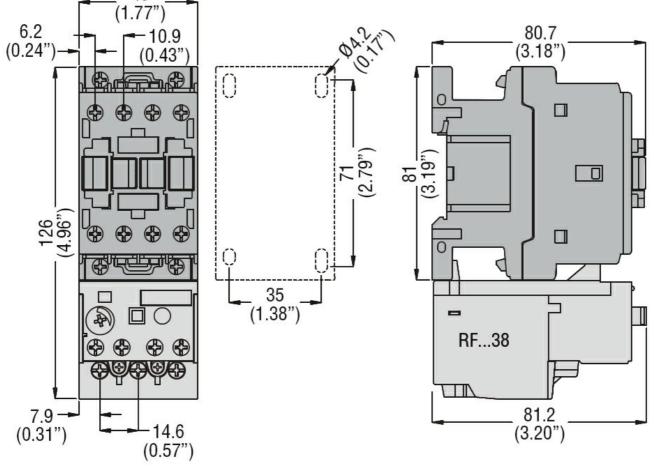
230VAC, 1NO AUXILIARY CONTACT

	60Hz		V	230
AC operating voltage	e			
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
	drop out	max	%Us	110
	drop-out	min	%Us	20
		max	%Us	20 55
AC average coil con	sumption at 20°C	IIIdA	7003	55
to avoiago con con	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holdin	g ≤20°C 50Hz	Ŭ	W	2.5
Max cycles frequend				
Mechanical operatio			cycles/h	3600
Operating times				
Average time for Us				
	in AC			
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NO			4.0
		min	ms	10
	Closing NC	max	ms	20
	Closing NC	min	ms	14
		max	ms	28
	Opening NC		inio	20
	1 3	min	ms	7
		max	ms	18
JL technical data				
Full-load current (FL	A) for three-phase AC motor			
		at 480V	А	14
_		at 600V	А	17
rielded mechanical				
	for single-phase AC motor			
		1101100		
		110/120V	HP	1
	for three phase AC mater	110/120V 230V	HP HP	3
	for three-phase AC motor	230V	HP	3
	for three-phase AC motor	230V 200/208V	HP HP	<u>3</u> 5
	for three-phase AC motor	230V 200/208V 220/230V	HP HP HP	3 5 5
	for three-phase AC motor	230V 200/208V 220/230V 460/480V	HP HP HP HP	3 5 5 10
General USE	for three-phase AC motor	230V 200/208V 220/230V	HP HP HP	3 5 5
General USE	for three-phase AC motor	230V 200/208V 220/230V 460/480V	HP HP HP HP	3 5 5 10
General USE		230V 200/208V 220/230V 460/480V	HP HP HP HP	3 5 5 10
General USE		230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	3 5 5 10 15
General USE	Contactor	230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	3 5 5 10 15
General USE	Contactor	230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	3 5 5 10 15 32
General USE	Contactor	230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP A	3 5 5 10 15 32 600
General USE	Contactor Auxiliary contacts	230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP A	3 5 5 10 15 32 600 10



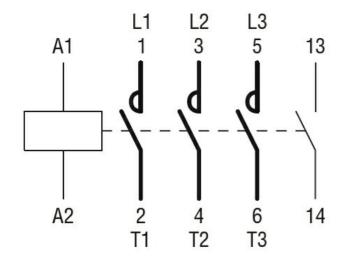
BF1810A23060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 230VAC, 1NO AUXILIARY CONTACT

		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 au	ixiliary 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 & Prote	ection			
Pollution degree				3
Dimensions				
	45			
	(1.77")			



Wiring diagrams





Certifications and compliance

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





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		Nr.	3
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		A	32
Operational current le			
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	A	26
	AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-4 (400V)	A	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)	0001/		
	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	-0.434		
	≤24V	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0.434		
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	20.0.1		00
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	А	16



BF1810A57560 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 575VAC, 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 20 A 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 11 А 75V 11 А 2 110V А 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 А 13 110V А 8 220V А 2 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series ≤24V А 18 48V А 18 75V А 16 110V А 12 220V А 6 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series ≤24V А 18 48V А 18 75V А 16 110V А 13 220V 8 А Short-time allowable current for 10s (IEC/EN60947-1) А 200 Protection fuse gG (IEC) А 32 aM (IEC) А 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) 2.5 mΩ Power dissipation per pole (average value) W 2.6 lth AC3 W 0.8 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibin 1.1 lbin 1.5 max Tightening torque for coil terminal min Nm 0.8 Nm 1 max min lbin 0.8



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 575VAC, 1NO AUXILIARY CONTACT

Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section	simultaneously connectable		INF.	2
Conductor section	AWG/Kcmil			
	AWG/Remin	max		10
	Flexible w/o lug conductor section	max		10
	Thexible w/ollog conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			-
	· · · · · · · · · · · · · · · · · · ·	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai
i ixiiig				35mm
Weight			g	346
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics		-	
Thermal current Ith			A	10
IEC/EN 60947-5-1 de				A600 - P600
IEC/EN 60947-5-1 de Operating current AC				
		230V	A	3
		400V	А	3 1.9
Operating current AC	15			3
	15	400V 500V	A A	3 1.9 1.4
Operating current AC	15	400V	А	3 1.9
Operating current AC	15	400V 500V 110V	A A A	3 1.9 1.4 5.7
Operating current AC	15	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7 5.7
Operating current AC	15	400V 500V 110V 24V 48V	A A A A A	3 1.9 1.4 5.7 5.7 2.9
Operating current AC	15	400V 500V 110V 24V 48V 60V	A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current AC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC Operating current DC Operating current DC Operations Mechanical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	115 112 113	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	115 112 113 10d according to EN/ISO 13489-1 me	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 1600000
Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000

electric ENERGY AND AUTOMATIC

BF1810A57560 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 575VAC 1NO AUXILIARY CONTACT

ENERGY AND AUTOMATION		575VAC,	1NO AUX	ILIARY CONTACT
Rated AC voltage at 60Hz			V	575
AC operating voltage			•	010
of 60Hz coil powered	at 60Hz			
·	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
	-	min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered	at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20°C 50Hz			W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us control				
in AC				
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			

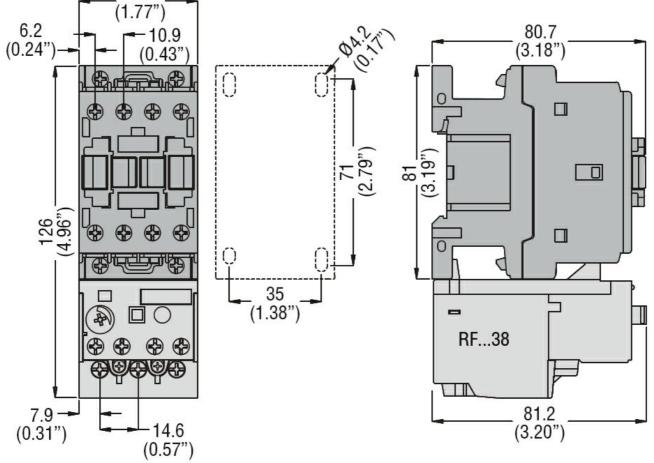
		min	ms	7
		max	ms	18
UL technical data				
Full-load current (F	LA) for three-phase AC motor			
		at 480V	А	14
		at 600V	А	17
Yielded mechanica	al performance			
	for single-phase AC motor			
		110/120V	HP	1
		230V	HP	3
	for three-phase AC motor			
	·	200/208V	HP	5
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1

Short-circuit protection fuse, 600V High fault



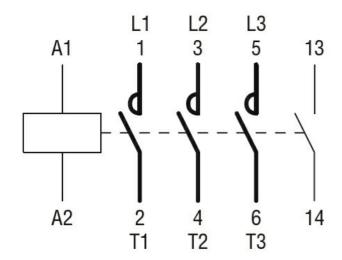
BF1810A57560 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 575VAC, 1NO AUXILIARY CONTACT

		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 aux	iliary 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 & Protec	tion			
Pollution degree				3
Dimensions				
	45			
	(1 77")			



Wiring diagrams





Certifications and compliance

Compliance

Simplianoe	
	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
ertificates	
	CCC
	cULus
	EAC
FIM classification	

ETIM 8.0

Ce





Product type designation BF18 Contact characteristics Ntm ber of poles Nt. 3 Rated insultation voltage Ui IEC/EN V 690 Rated insultation voltage Uimp KV 6 Operational frequency min Hz 25 max Hz 400 32 Operational free air thermal current lth A 32 Operational current le AC-1 (sf0°C) A 32 AC-1 (sf0°C) A 32 AC-1 (sf0°C) A 32 AC-3 (sf0°C) A 23 AC-3 (sf400' S5°C) A 18 AC-4 (400V) A 8.5 AC-4 (400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V KW 4 400V KW 9 415V KW 9 500V KW 10 690V KW 12 440V KW 12 400V KW 12 400V 400V KW 12 690V KW 10 86 690V KW 12 400V 12<	Product designation			Power contactor
Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN V 690 Rated insulation voltage Uimp KV 6 Operational frequency min Hz 25 max Hz 400 1 IEC Conventional free air thermal current lth A 32 Operational current le AC-1 (\$40°C) A 32 AC-3 (\$440V \$55°C) A 18 AC-4 (400V) A 8.5 Rated operational power AC-3 (T\$55°C) 230V kW 4 400V kW 9 500V kW 9 500V kW 10 690V kW 10 Rated operational power AC-1 (T\$40°C) 230V kW 12 400V kW 21 600V kW 12 400V kW	Product type designation			BF18
Rated insulation voltage Ui IEC/EN V 690 Rated inpulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 IEC Conventional frequency min Hz 25 Operational current le A 32 0 Operational current le AC-1 (≤40°C) A 32 AC-1 (≤70°C) A 23 AC-1 (≤70°C) A 23 AC-3 (≤440V ≤55°C) A 18 AC-4 (400V) 8.5 S Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 9 440V kW 9 500V kW 10 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 21 500V kW 10 690V kW 21 500V kW 10 690V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	Contact characteristics			
Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 max Hz 400 162 Operational current le A 32 Operational current le A 32 AC-1 (s40°C) A 32 AC-1 (s40°C) A 32 AC-1 (s40°C) A 32 AC-1 (s40°C) A 32 AC-3 (s440V s55°C) A 18 AC-4 (400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 9 500V kW 9 500V kW 10 690V kW 10 Rated operational power AC-1 (Ts40°C) 230V kW 12 400V kW 21 500V kW 12 400V kW 21 50V kW 21 1EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series \$24V A 17 <	Number of poles		Nr.	3
Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current lth A 32 Operational current le AC-1 (540°C) A 32 AC-1 (555°C) A 26 AC-1 (570°C) A 23 AC-3 (st4400 × 55°C) A 18 AC-4 (400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 9 500V kW 9 500V kW 9 500V kW 10 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 12 400V kW 12 609V kW 12 400V kW 26 690V kW 12 609V kW 15 110V A 6 220V A 15 110V A 6 220V A 15 110V A </td <td>Rated insulation voltage Ui IEC/EN</td> <td></td> <td>V</td> <td>690</td>	Rated insulation voltage Ui IEC/EN		V	690
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Rated impulse withstand voltage Uimp		kV	6
max Hz 400 IEC Conventional free air thermal current lth A 32 Operational current le AC-1 (≤40°C) A 32 AC-1 (≤50°C) A 26 AC-1 (≤50°C) A 23 AC-3 (≤50°C) A 18 AC-3 (≤50°C) A 18 AC-3 (400V) A 8.5 AC-3 (≤400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 9 500V kW 9 500V kW 10 690V kW 10 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 12 400V kW 10 690V kW 12 600V kW 12 600V kW 12 400V kW 12 600V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 15 10V <t< td=""><td>Operational frequency</td><td></td><td></td><td></td></t<>	Operational frequency			
IEC Conventional free air thermal current lthA32Operational current leAC-1 (≤40°C)A32AC-1 (≤55°C)A26AC-1 (≤55°C)A23AC-3 (≤440V ≤55°C)A18AC-4 (400V)A8.5Rated operational power AC-3 (T≤55°C)230VkW4400VkW9400VkW9440VkW99600VkW10Rated operational power AC-1 (T≤40°C)230VkW101012400VkW21SolovkW10500VkW101012101012Rated operational power AC-1 (T≤40°C)230VkW12400VkW21500VkW26690VkW26690VkW36IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series≤24VA1748VA15110VA6220VA-1IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series≤24VA2075VA2011111220VA11111248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA2248VA <td< td=""><td></td><td>min</td><td>Hz</td><td>25</td></td<>		min	Hz	25
Operational current le AC-1 (≤40°C) A 32 AC-1 (≤55°C) A 26 AC-1 (≤70°C) A 23 AC-3 (≤440V <55°C)		max	Hz	400
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	IEC Conventional free air thermal current Ith		А	32
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Operational current le			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		AC-1 (≤40°C)	А	32
AC-3 (≤440V ≤55°C) A 18 AC-4 (400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 9 415V kW 9 415V kW 9 500V kW 10 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 12 400V kW 21 500V kW 26 690V kW 26 690V kW 26 690V kW 36 11 15 15 110V A 15 110V A 15 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 20 75V A 13 220V A 1 1 1 1 1 1 1 1 1 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V		AC-1 (≤55°C)	А	26
AC-4 (400V) A 8.5 Rated operational power AC-3 (T≤55°C) 230V kW 4 400V kW 7.5 415V kW 9 440V kW 9 440V kW 9 500V kW 10 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 26 690V kW 26 690V 690V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $≤24V$ A 17 48V A 15 110V A 6 220V A - 16 12C max current le in DC1 with L/R ≤ 1ms with 2 poles in series $≤24V$ A 20 75V A 20 110V A 6 220V A 1 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $≤24V$ A 20 75V A 20 110V A 13 220V A 1		AC-1 (≤70°C)	А	23
Rated operational power AC-3 (T≤55°C)230VkW4400VkW7.5415VkW9440VkW9500VkW10690VkW10Rated operational power AC-1 (T≤40°C)230VkW230VkW12400VkW230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW12230VkW1224VA1748VA2024VA220VA1024VA220VA1024VA <td></td> <td>AC-3 (≤440V ≤55°C)</td> <td>А</td> <td>18</td>		AC-3 (≤440V ≤55°C)	А	18
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		AC-4 (400V)	А	8.5
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Rated operational power AC-3 (T≤55°C)			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		230V	kW	4
$ \begin{array}{c} 440 \vee & k W & 9 \\ 500 \vee & k W & 10 \\ \hline 690 \vee & k W & 10 \\ \hline Rated operational power AC-1 (T \leq 40 ^{\circ} C) \\ \hline \\ 230 \vee & k W & 12 \\ 400 \vee & k W & 21 \\ 500 \vee & k W & 26 \\ \hline 690 \vee & k W & 36 \\ \hline \\ \hline IEC max current le in DC1 with L/R \leq 1ms with 1 poles in series \\ \hline \\ \\ \hline \\ EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \\ \hline \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \\ \hline \\ \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \\ \hline \\ \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \\ \hline \\ \hline \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series \\ \hline \\ \hline \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series \\ \hline \\ \hline \\ \hline \\ IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series \\ \hline \\ $		400V	kW	7.5
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		415V	kW	9
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		440V	kW	9
Rated operational power AC-1 (T≤40°C) $230V$ kW12 $400V$ kW21 $500V$ kW26 $690V$ kW36IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $\leq 24V$ A17 $48V$ A1575VA15 $75V$ A15110VA6 $220V$ A-220VA-IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $\leq 24V$ A20 $48V$ A2075VA13 $220V$ A11220VA1IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $\leq 24V$ A22 $48V$ A2248VA22 $48V$ A2275VA20		500V	kW	10
$ \begin{array}{c} 230 \lor k \Downarrow 12 \\ 400 \lor k \Downarrow 21 \\ 500 \lor k \Downarrow 26 \\ 690 \lor k \Downarrow 36 \end{array} \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $ \begin{array}{c} \leq 24 \lor A & 17 \\ 48 \lor A & 15 \\ 75 \lor A & 15 \\ 110 \lor A & 6 \\ 220 \lor A & - \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $ \begin{array}{c} \leq 24 \lor A & 20 \\ 48 \lor A & 20 \\ 75 \lor A & 20 \\ 110 \lor A & 13 \\ 220 \lor A & 1 \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $ \begin{array}{c} \leq 24 \lor A & 20 \\ 48 \lor A & 20 \\ 75 \lor A & 20 \\ 110 \lor A & 13 \\ 220 \lor A & 1 \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $ \begin{array}{c} \leq 24 \lor A & 20 \\ 110 \lor A & 13 \\ 220 \lor A & 1 \end{array} $		690V	kW	10
$ \begin{array}{c c} 400 \lor & kW & 21 \\ 500 \lor & kW & 26 \\ 690 \lor & kW & 36 \end{array} \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $ \begin{array}{c c} \leq 24 \lor & A & 17 \\ 48 \lor & A & 15 \\ 75 \lor & A & 15 \\ 110 \lor & A & 6 \\ 220 \lor & A & - \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $ \begin{array}{c c} \leq 24 \lor & A & 20 \\ 48 \lor & A & 20 \\ 75 \lor & A & 20 \\ 75 \lor & A & 20 \\ 110 \lor & A & 13 \\ 220 \lor & A & 1 \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $ \begin{array}{c c} \leq 24 \lor & A & 20 \\ 110 \lor & A & 13 \\ 220 \lor & A & 1 \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $ \begin{array}{c c} \leq 24 \lor & A & 22 \\ 48 \lor & A & 22 \\ 48 \lor & A & 22 \\ 75 \lor & A & 20 \end{array} $	Rated operational power AC-1 (T≤40°C)			
$\begin{tabular}{ c c c c c } \hline $500V & kW & 26\\ \hline $690V & kW & 36\end{tabular} \\ \hline EC max current le in DC1 with L/R $$ 1ms with 1 poles in series $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$$		230V	kW	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		400V	kW	21
IEC max current le in DC1 with L/R < 1ms with 1 poles in series		500V	kW	26
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		690V	kW	36
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
$\begin{array}{c cccc} 75 & A & 15 \\ 110 & A & 6 \\ 220 & A & - \end{array} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 2 poles in series} \\ \hline \mbox{Series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{Series} \\ \hline \m$		≤24V	А	17
$ \begin{array}{c cccc} & 110 & A & 6 \\ & 220 & A & - \end{array} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 2 poles in series} \\ & \leq 24 & A & 20 \\ & 48 & A & 20 \\ & 48 & A & 20 \\ & 75 & A & 20 \\ & 110 & A & 13 \\ & 220 & A & 1 \end{array} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ \hline IEC max current$		48V	А	15
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		75V	А	15
IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series $\leq 24V$ A2048VA2075VA20110VA13220VA1IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series $\leq 24V$ A2248VA2248VA2275VA20		110V	А	6
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		220V	А	_
$ \begin{array}{cccc} 48 \mbox{V} & \mbox{A} & 20 \\ 75 \mbox{V} & \mbox{A} & 20 \\ 110 \mbox{V} & \mbox{A} & 13 \\ 220 \mbox{V} & \mbox{A} & 1 \end{array} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 3 poles in series} \\ & \mbox{$\leq 24 \mbox{V} & \mbox{A} & 22 \\ 48 \mbox{V} & \mbox{A} & 22 \\ 75 \mbox{V} & \mbox{A} & 20 \end{array} $	IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
$\begin{array}{ccccc} 75 \ensuremath{\vee} & A & 20 \\ 110 \ensuremath{\vee} & A & 13 \\ 220 \ensuremath{\vee} & A & 1 \end{array}$ IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series $\begin{array}{cccccccccccccccccccccccccccccccccccc$		≤24V	А	20
$\begin{tabular}{cccc} 110V & A & 13\\ 220V & A & 1 \end{tabular}$ IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series $\begin{tabular}{cccc} \leq 24V & A & 22\\ 48V & A & 22\\ 75V & A & 20 \end{tabular}$		48V	А	20
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		75V	А	20
IEC max current le in DC1 with L/R < 1ms with 3 poles in series $\leq 24V$ A2248VA2275VA20		110V	А	13
≤24V A 22 48V A 22 75V A 20		220V	Α	1
48V A 22 75V A 20	IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
75V A 20		≤24V	А	22
		48V	А	22
110V A 16		75V	А	20
		110V	А	16



BF1810A46060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 460VAC, 1NO AUXILIARY CONTACT

IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V	A A A A A A A A A A A A A A A A A A A	11 22 20 18 13 12 11 12 11 12 13 12 13 14
IEC max current le in DC3-DC5 with L/R \leq 15ms with 1 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A A A A A A A	22 20 18 13 12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A A A A A A A	22 20 18 13 12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A A A A A	20 18 13 12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A A A A A	18 13 12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A A A A	13 12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	≤24V 48V 75V 110V 220V <24V 48V 75V 110V 220V <24V 48V 75V	A A A A A A A A A A	12 11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A	11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	48V 75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A A	11 11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	75V 110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A A	11 2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	110V 220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A A	2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A A	2 - 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220V ≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A	- 15 13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V 48V 75V 110V 220V ≤24V 48V 75V	A A A A A A	13 13 8 2 18
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	48∨ 75∨ 110∨ 220∨ ≤24∨ 48∨ 75∨	A A A A A	13 13 8 2 18
	48∨ 75∨ 110∨ 220∨ ≤24∨ 48∨ 75∨	A A A A A	13 13 8 2 18
	75∨ 110∨ 220∨ ≤24∨ 48∨ 75∨	A A A A	13 8 2 18
	110V 220V ≤24V 48V 75V	A A A A	8 2 18
	220V ≤24V 48V 75V	A A A	2
	≤24V 48V 75V	A A	18
	48V 75V	А	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	48V 75V	А	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	75V		
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series			18
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	110\/	Α	16
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series		A	12
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	220V	A	6
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	А	13
	220V	А	8
Short-time allowable current for 10s (IEC/EN60947-1)		А	200
Protection fuse			
	gG (IEC)	А	32
	aM (IEC)	А	20
Making capacity (RMS value)	(-)	Α	180
Breaking capacity at voltage			
	440V	А	144
	440V 500V	A	120
	500V 690V	A	94
Posistance per polo (averago veluo)	090 0		
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)		147	0.0
	lth	W	2.6
	AC3	W	0.8
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 460VAC, 1NO AUXILIARY CONTACT

		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWG/RCIIII	max		10
	Flexible w/o lug conductor section	Παλ		10
		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
				IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai
Fixing				35mm
Weight			g	352
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 de				A600 - P600
Operating current AC	15			
		230V	А	3
		400V	A	1.9
		500V	A	1.4
Operating current DC	12			
		110V	Α	5.7
Operating current DC	13			
		24V	А	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	А	1.25
		125V	А	1.1
		220V	А	0.55
		600V	А	0.2
Operations				
Mechanical life			cycles	2000000
Electrical life			cycles	1600000
Safety related data				
	0d according to EN/ISO 13489-1			
Performance level B1		rated load	cycles	1600000
Performance level B1		rated load		
Performance level B1	m	echanical load	cycles	20000000
	ing to IEC/EN 609474-4-1		-	20000000 yes
			-	



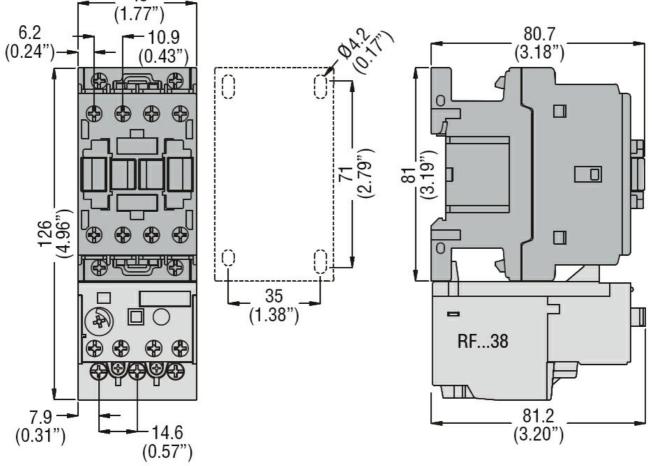
BF1810A46060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 460VAC, 1NO AUXILIARY CONTACT

Rated AC voltage at			V	460
C operating voltag				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out	min	0/110	20
		min	%Us %Us	20 55
AC average coil cor	sumption at 20°C	max	%05	55
AC average coll col	of 60Hz coil powered at 60Hz			
	of our iz con powered at our iz	in-rush	VA	75
		holding	VA	9
Dissipation at holdir	a ≤20°C 50Hz	nording	W	2.5
Max cycles frequent				2.0
Mechanical operatio			cycles/h	3600
Operating times			-,	
Average time for Us	control			
	in AC			
	Closing NO			
	5	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	A) for three phase AC motor			
Full-load current (FL	A) for three-phase AC motor	at 480V	А	14
		at 600V	A	14
Yielded mechanical	norformanco	at 000 v	A	17
	for single-phase AC motor			
	ior single-phase AC motor	110/120V	HP	1
		230V	HP	3
	for three-phase AC motor	2007		-
		200/208V	HP	5
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
	-	AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protect	ion fuse, 600V			
	High fault			



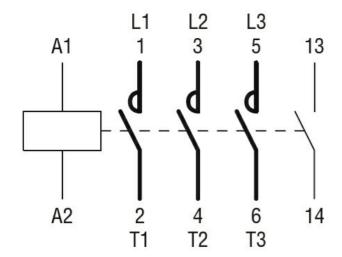
BF1810A46060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 460VAC, 1NO AUXILIARY CONTACT

		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 aux	iliary 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 & Protec	tion			
Pollution degree				3
Dimensions				
	45			



Wiring diagrams





Certifications and compliance

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