BF195T4E110



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 275A, AC/DC COIL, 60... 130VAC/DC



Product designation Product type designation			Power contactor BF195
Contact characteristics			BITIO
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			-
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	275
Operational current le			
	AC-1 (≤40°C)	А	275
	AC-1 (≤55°C)	A	230
	AC-1 (≤70°C)	A	200
	AC-3 (≤440V ≤55°C)	A	195
	AC-4 (400V)	A	95
Rated operational current AC-3 (T≤55°C)			
	230V	А	195
	400V	A	195
	415V	A	195
	440V	A	195
	500V	A	184
	690V	A	165
	1000V	A	85
Rated operational power AC-1 (T≤40°C)			
	230V	kW	104
	400V	kW	181
	500V	kW	199
	690V	kW	312
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			-
	≤24V	А	275
	48V	A	275
	75V	A	275
	110V	A	120
	220V	А	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	А	275
	48V	A	275
	75V	A	275
	110V	A	170
	220V	A	150
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	А	275
	48V	A	275
	75V	A	275



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130VAC/DC

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IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series $524V$ A 275 48VA 275 110VA 275 110VA 275 220VA 275 110VA 275 110VA 275 110VA 275 110VA 275 110VA 90 220VA $-$ 110VA 90 220VA $-$ 110VA 90 220VA $-$ 110VA 90 220VA 275 48VA 275 48VA 275 75VA180110VA140220VA110110VA160220VA140330VA100110VA160220VA140330VA100110VA160220VA160220VA160220VA160220VA160220VA160220VA160220VA160220VA160220VA160220VA160220VA160330VA100110VA1560Protection fuse gG (IEC)A315 gG (I
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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
$\begin{tabular}{ c c c c c } \hline 100V & A & 275 \\ \hline 220V & A & 275 \\ \hline 220V & A & 275 \\ \hline 220V & A & 275 \\ \hline 48V & A & 275 \\ \hline 75V & A & 180 \\ \hline 110V & A & 90 \\ \hline 220V & A & - \\ \hline \hline$
$\begin{array}{c c c c c c c c } \hline 220V & A & 275 \\ \hline 1EC \max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 1 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 90 \\ & 220V & A & - \\ \hline \hline 1EC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 2 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 140 \\ & 220V & A & 100 \\ \hline \hline IEC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 3 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 48V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 100 \\ \hline \hline IEC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 3 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 100 \\ \hline \hline IEC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 4 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 100 \\ \hline \hline IEC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 4 \ poles \ in \ series \\ & \leq 24V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 100 \\ \hline \hline IEC \ max \ current \ le \ in \ DC3-DC5 \ with \ L/R \le 15ms \ with \ 4 \ poles \ in \ series \\ & \qquad \qquad$
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series $\leq 24V$ A 275 $48V$ A 275 $75V$ A 180 $110V$ A 90 $220V$ A - IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series $\leq 24V$ A 275 $48V$ A 275 75V A 180 $110V$ A 275 48V A 275 $75V$ A 180 110V A 140 $220V$ A 275 48V A 275 $75V$ A 180 110V A 140 $220V$ A 275 48V A 275 $75V$ A 180 110V A 160 $220V$ A 100 110V A 160 $220V$ A 275 75V A 180 $110V$ A 160 220V A 100 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in ser
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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
$\begin{array}{c c c c c c c } \hline 220V & A & - \\ \hline 1 \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series} \\ \hline & $24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 140 \\ & 220V & A & 100 \\ \hline \\ \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series} \\ \hline & $24V & A & 275 \\ & 48V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 140 \\ & 330V & A & 100 \\ \hline \\ \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series} \\ \hline & $24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 140 \\ & 330V & A & 100 \\ \hline \\ \hline \\ \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series} \\ \hline & $24V & A & 275 \\ & 48V & A & 275 \\ & 75V & A & 180 \\ & 110V & A & 160 \\ & 220V & A & 160 \\ & 330V & A & 160 \\ & 220V & A & 160 \\ & 330V & A & 160 \\ \hline \\ $
$\begin{array}{c c c c c c c } \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series}} & \leq 24 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 75 & \text{A} & 180 \\ & 110 & \text{A} & 140 \\ & 220 & \text{A} & 100 \\ \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series}} & \leq 24 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 75 & \text{A} & 180 \\ & 110 & \text{A} & 160 \\ & 220 & \text{A} & 140 \\ & 330 & \text{A} & 100 \\ \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series}} & \leq 24 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 75 & \text{A} & 180 \\ & 110 & \text{A} & 160 \\ & 220 & \text{A} & 140 \\ & 330 & \text{A} & 100 \\ \hline \hline \text{IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series}} & \leq 24 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 48 & \text{A} & 275 \\ & 75 & \text{A} & 180 \\ & 110 & \text{A} & 160 \\ & 220 & \text{A} & 160 \\ & 330 & \text{A} & 160 \\ & 220 & \text{A} & 160 \\ & 330 & \text{A} & 160 \\ & 460 & \text{A} & 100 \\ \hline \hline \text{Short-time allowable current for 10s (IEC/EN60947-1)} & \text{A} & 1560 \\ \hline \text{Protection fuse} & & & & \\ \hline \begin{array}{c} \text{gG (IEC)} & \text{A} & 315 \\ \text{aM (IEC)} & \text{A} & 250 \\ \end{array} \right.$
$ \begin{array}{c c c c c c } \leq 24V & A & 275 \\ 48V & A & 275 \\ 75V & A & 180 \\ 110V & A & 140 \\ 220V & A & 100 \\ \hline \\$
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$\begin{tabular}{ c c c c c } \hline 75V & A & 180 \\ 110V & A & 140 \\ 220V & A & 100 \\ \hline \end{tabular}$ IEC max current le in DC3-DC5 with L/R < 15ms with 3 poles in series $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$
$\begin{tabular}{ c c c c c } & 110V & A & 140 \\ & 220V & A & 100 \\ \hline \end{tabular} \$
$\begin{array}{c c c c c c c c c c c c c c c c c c c $
$\begin{tabular}{ c c c c c } \hline \mbox{EC max current le in DC3-DC5 with L/R \le 15ms with 3 poles in series} \\ \hline \end{tabular} & \le 24V & A & 275 \\ 48V & A & 275 \\ 75V & A & 180 \\ 110V & A & 160 \\ 220V & A & 140 \\ 330V & A & 100 \\ \hline \end{tabular} & $=$ 15ms with 4 poles in series} \\ \hline \end{tabular} & $=$ 24V & A & 275 \\ 48V & A & 275 \\ 48V & A & 275 \\ 75V & A & 180 \\ 110V & A & 160 \\ 220V & A & 160 \\ 330V & A & 160 \\ 330V & A & 160 \\ 460V & A & 100 \\ \hline \end{tabular} & $=$ 15ms (IEC/EN60947-1) & A & 1560 \\ \hline \end{tabular} & $=$ 15ms (IEC/EN60947-1) & A & 1$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c cccc} & 48 & A & 275 \\ 75 & A & 180 \\ 110 & A & 160 \\ 220 & A & 140 \\ 330 & A & 100 \\ \end{array} \\ \hline \begin{tabular}{lllllllllllllllllllllllllllllllllll$
$\begin{array}{c ccccc} 75 & A & 180 \\ 110 & A & 160 \\ 220 & A & 140 \\ 330 & A & 100 \\ \hline \\ IEC \mbox{ max current le in DC3-DC5 with L/R \le 15ms with 4 poles in series} \\ & \le 24 V & A & 275 \\ 48 V & A & 275 \\ 48 V & A & 275 \\ 75 V & A & 180 \\ 110 V & A & 160 \\ 220 V & A & 160 \\ 220 V & A & 160 \\ 330 V & A & 160 \\ 460 V & A & 100 \\ \hline \\ \hline \\ Protection fuse \\ \hline \\ \hline \\ Protection fuse \\ \hline \\ \hline \\ gG (IEC) & A & 315 \\ aM (IEC) & A & 250 \\ \hline \end{array}$
$ \begin{array}{c cccc} 110 V & A & 160 \\ 220 V & A & 140 \\ 330 V & A & 100 \end{array} \\ \hline \begin{tabular}{lllllllllllllllllllllllllllllllllll$
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48V A 275 75V A 180 110V A 160 220V A 160 330V A 160 460V A 100 A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
75V A 180 110V A 160 220V A 160 330V A 160 330V A 160 460V A 100 Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
110V A 160 220V A 160 330V A 160 330V A 160 460V A 100 Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
220V A 160 330V A 160 460V A 100 Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
330V A 160 460V A 100 Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
460V A 100 Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
Short-time allowable current for 10s (IEC/EN60947-1) A 1560 Protection fuse gG (IEC) A 315 aM (IEC) A 250
Protection fuse gG (IEC) A 315 aM (IEC) A 250
gG (IEC) A 315 aM (IEC) A 250
aM (IEC) A 250
aM (IEC) A 250
Breaking capacity at voltage
440V A 1658
500V A 1326
690V A 1377
Resistance per pole (average value) mΩ 0.18
Power dissipation per pole (average value)
Ith W 13
AC-3 W 6.7
AC-3 W 6.7 Tightening torque for terminals
AC-3 W 6.7 Tightening torque for terminals min Nm 18
AC-3W6.7Tightening torque for terminalsminNm18maxNm18
AC-3 W 6.7 Tightening torque for terminals min Nm 18

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ENERGY AND AUTOMATION

Tightening torque for c	oil terminal			
rightening torque for o		min	Nm	0.8
		max	Nm	1
Power terminal protect	ion according to IEC/EN 60529			IP00
Mechanical features	Ŭ			
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw
Weight			g	4000
Operations				
Mechanical life			cycles	1000000
Electrical life			cycles	1000000
Safety related data				
Performance level B10	0 according to EN/ISO 13489-1			
		rated load	cycles	100000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50)/60Hz, 60Hz			
		min	V	60
		max	V	110
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out		0/11	
		max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz			
	pick-up		0/110	80 Us min
		min	%Us %Us	110 Us max
	drop-out	max	/005	110 05 max
	diop-out	max	%Us	≤70 Us min
AC average coil consu	motion at 20°C	IIIdA	/003	<u>=10 03 mm</u>
Ao average con consu	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	160230
		holding	VA	1.53.0
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	160230
		holding	VA	1.53.0
	of 60Hz coil powered at 60Hz	Ŭ		
		in-rush	VA	160230
		holding	VA	1.53.0
Dissipation at holding	≤20°C 50Hz		W	1.53.0
DC coil operating				
DC rated control voltag	je			
		min	V	60
		max	V	130
DC operating voltage				
	pick-up			
		min	%Us	85 Us min
		max	%Us	110 Us max

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ENERGY AND AUTOMATION

130VAC/DC

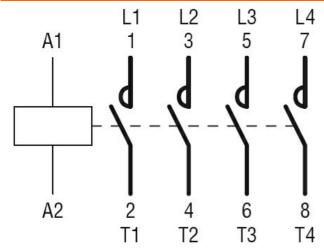
	-lasa sut				
	drop-out		max	%Us	≤70 Us min
Average coil consump	otion ≤20°C				
0 1			in-rush	W	160230
			holding	W	1.53.0
Max cycles frequency			J		
Mechanical operation				cycles/h	1000
Operating times				·	
Average time for Us c	ontrol				
Ū.	in AC				
		Closing NO			
		Ū	min	ms	50
			max	ms	100
		Opening NO			
			min	ms	35
			max	ms	75
UL technical data					
Yielded mechanical pe	erformance				
·	for three-phase AC mot	tor			
			200/208V	HP	60
			220/230V	HP	75
			460/480V	HP	150
			575/600V	HP	150
General USE					
	Contactor				
	Contactor		AC current	А	275
Short-circuit protection	n fuse 600V				210
	High fault				
	riigiriaan		Short circuit current	kA	100
			Fuse rating	A	400
			Fuse class	Λ	J
	Standard fault		1 430 01433		0
			Short circuit current	kA	10
			Fuse rating	A	400
			Fuse class	~	RK5
Ambient conditions					
Temperature					
remperature	Operating temperature				
	Operating temperature		min	°C	-40
			max	°C	70
	Storage temperature		IIIdX	U	10
	Slorage lemperature		min	°C	-50
			min	°C	-50 80
Max altitude			max		
	on			m	3000
Resistance & Protection	on				2
Pollution degree					3
Dimensions					



140 (5.51") 149 (5.87") 5 (0.20") (1.38") (1.38") (2.75") 112 (4.41") 0 0 0 0 С O 0 G Œ FF 四 四 Ð 0 0 ⊕ Г 177 (6.97") Ē 128 (5.04") 187 (7.36") 169 (6.65") 193 (7.60") €0—□ E • 0 . 05.4 (0.21") 昭 日日 Œ C 0 0 Ø8.5 (0.33") 128 (5.04") --18-(0.71")

Wiring diagrams

____35 ___ (1.38*)



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		
	cULus	
ETIM classification		
		EC000066 -
		Devuer eente ster

Power contactor, AC switching

ETIM 8.0

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