



Product type designation   BF195     Contract characteristics				alley
Contact characteristics   Nr.   4     Number of poles   Nr.   4     Rated insulation voltage Ui IEC/EN   V   1000     Rated insulation voltage Uimp   kV   8     Operational frequency   min   Hz   25     max   Hz   400   182     IEC Conventional free air thermal current Ith   A   275     Operational current le   AC-1 (≤40°C)   A   275     AC-3 (≤440V ≤55°C)   A   195   AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195   400V   A   195     400V   A   195   400V   A   195     400V   A   195   400V   A   195     400V   A   195   500V   A   184     690V   A   185   690V   KW   104     400V   W   195   500V   KW   104     400V   W   120 <td< th=""><th>Product designation</th><th></th><th></th><th>Power contactor</th></td<>	Product designation			Power contactor
Number of poles   Nr.   4     Rated insulation voltage Ui IEC/EN   V   1000     Rated insulation voltage Uimp   kV   8     Operational frequency   min   Hz   25     max   Hz   400   16C     IEC Conventional free air thermal current lth   A   275     Operational current le   AC-1 (<40°C)	Product type designation			BF195
Rated insulation voltage Ui IEC/EN   V   1000     Rated inpulse withstand voltage Uimp   kV   8     Operational frequency   min   Hz   25     max   Hz   400   125     Operational frequency   min   Hz   25     Dependence   A   275   0     Operational current le   A   275   0     AC-1 (≤40°C)   A   200   AC-3 (≤440V ≤55°C)   A   200     AC-3 (≤440V ≤55°C)   A   195   AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195   415V   A   195     415V   A   195   500V   A   185   500V   A   185     690V   A   165   1000V   A   85     Rated operational power AC-1 (T≤40°C)   230V   KW   104   400V   KW   199     690V   kW   122   220V   A   275   75V   48V	Contact characteristics			
Rated impulse withstand voltage Uimp   kV   8     Operational frequency   min   Hz   25     max   Hz   400     IEC Conventional frequency   max   Hz   400     Operational current le   A   275     Operational current le   AC-1 (≤40°C)   A   275     AC-1 (≤55°C)   A   230   AC-1 (≤55°C)   A   195     AC-3 (≤440V ≤55°C)   A   195   AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195   440V   A   195     440V   A   195   500V   A   184   690V   A   195     100V   A   85   85   8   8   8   8     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   ≤24V   A   275   110V   A   275     116C max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V   A   275   75V   A   275     110V<	Number of poles			
Operational frequency   min max   Hz   25 max     IEC Conventional free air thermal current lth   A   275     Operational current le   AC-1 (\$40°C)   A   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   A   195   400V   A   195     415V   A   195   500V   A   195   500V   A   195     415V   A   195   500V   A   195   500V   A   184     690V   A   165   1000V   A   85   85     Rated operational power AC-1 (T≤40°C)   230V   KW   104   400V   KW   199     690V   kW   181   500V   kW   120   220V   A   -     IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   \$24V   A   275	Rated insulation voltage Ui IEC/EN		V	1000
min   Hz   25 Hz     IEC conventional free air thermal current lth   A   275     Operational current le   AC-1 (≤40°C)   A   275     AC-1 (≤55°C)   A   230   AC-1 (≤50°C)   A   200     AC-3 (≤440V ≤55°C)   A   195   AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195   400V   A   195     400V   A   195   500V   A   195   500V   A   195     440V   A   195   500V   A   184   690V   A   165     1000V   A   195   500V   A   184   500V   KW   104     400V   KW   104   400V   KW   120   220V   A   275     1000V   A   275   75V   A   275   75V   A   275     100V   KW   100   A   275   48V   275	Rated impulse withstand voltage Uimp		kV	8
max   Hz   400     IEC Conventional free air thermal current lth   A   275     Operational current le   AC-1 (s55°C)   A   230     AC-1 (s55°C)   A   200   AC-3 (s440V 555°C)   A   195     AC-4 (400V)   A   95   Bated operational current AC-3 (T≤55°C)   A   195     Act-4 (400V)   A   95   Bated operational current AC-3 (T≤55°C)   A   195     Act-4 (400V)   A   195   400V   A   195     Act-4 (400V)   A   195   400V   A   195     Act-4 (400V)   A   195   500V   A   184     690V   A   195   500V   A   184     690V   A   165   500V   KW   104     400V   KW   184   500V   KW   184     500V   KW   184   500V   KW   184     690V   KW   184   500V   KW   120	Operational frequency			
IEC Conventional free air thermal current Ith A 275   Operational current le AC-1 (≤40°C) A 275   AC-1 (≤55°C) A 230 AC-1 (≤55°C) A 200   AC-3 (≤440V ≤55°C) A 95 AC-4 (400V) A 95   Rated operational current AC-3 (T≤55°C) 230V A 195 400V A 195   400V A 195 400V A 195 400V A 195   440V A 195 440V A 195 500V A 165   1000V A 85 85 85 85 85 85   Rated operational power AC-1 (T≤40°C) 230V kW 104 400V kW 181 500V 81 185   IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 275 110V A 120   IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 275 75V A 275   110V A 170 220V A <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   275     AC-1 (≤55°C)   A   230   AC-1 (≤55°C)   A   200     AC-3 (≤440V ≤55°C)   A   195   AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195   400V   A   195     400V   A   195   400V   A   195   500V   A   195     415V   A   195   500V   A   195   500V   A   184     690V   A   195   500V   A   184     690V   A   165   1000V   A   85     Rated operational power AC-1 (T≤40°C)   230V   kW   104   400V   kW   199     900V   kW   1312   IEC   A   275   75V   A   275     110V   A   120   220V   A   120   220V   A   120     220V   A   170   22		max	Hz	400
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			А	275
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Operational current le			
AC-1 (≤70°C) A 200   AC-3 (≤440V ≤55°C) A 195   Rated operational current AC-3 (T≤55°C) 230V A 195   400V A 195 400V A 195   400V A 195 440V A 195   440V A 195 440V A 195   440V A 195 500V A 184   690V A 185 1000V A 85   Rated operational power AC-1 (T≤40°C) 230V kW 104 40V 405   1000V A 85 85 85 85 85   Rated operational power AC-1 (T≤40°C) 230V kW 104 400V 85   IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 275 75V A 275   110V A 120 220V A - 120 220V A -   IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 275 110V A		. , ,	А	275
AC-3 (≤440V ≤55°C) A 195   Rated operational current AC-3 (T≤55°C) 230V A 195   400V A 195 400V A 195   410V A 195 416V A 195   416V 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 181 500V kW 132   IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 275   48V A 275 75V A 275   110V A 120 220V A -   IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 275   48V A 275 110V A 120   220V A 275 110V A 170   220V A 170 220V A 150		. , ,	А	
AC-4 (400V)   A   95     Rated operational current AC-3 (T≤55°C)   230V   A   195     400V   A   195   415V   A   195     415V   A   195   500V   A   185     500V   A   184   690V   A   185     1000V   A   85   85   86     Rated operational power AC-1 (T≤40°C)   230V   kW   104     400V   kW   181   500V   kW   181     500V   kW   199   690V   kW   121     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   524V   A   275     110V   A   120   220V   A   -     IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   524V   A   275   75V   A   275     110V   A   120   220V   A   -   165     1EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   524V   A   275			А	
Rated operational current AC-3 (T≤55°C) 230V A 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 192 690V kW 120   1EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 275   48V A 275 110V A 120   220V A - 120 220V A -   IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 275   48V A 275 48V A 275   110V A 170 220V A -   IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 275   110V A 170 </td <td></td> <td></td> <td></td> <td></td>				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		AC-4 (400V)	A	95
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Rated operational current AC-3 (T≤55°C)			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
1000VA85Rated operational power AC-1 (T≤40°C)230VkW104400VkW181500VkW199690VkW312IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $\leq 24V$ A27548VA27575VA275110VA120220VA-IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $\leq 24V$ A27548VA275110VA120220VA-220VA-IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $\leq 24V$ A27548VA275110VA170220VA150150150150IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $\leq 24V$ A27548VA27548VA27548VA27548VA27548VA27548VA275				
Rated operational power AC-1 (T≤40°C) $230V$ kW104 $400V$ kW181 $500V$ kW199 $690V$ kW312IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $\leq 24V$ A275 $48V$ A27575VA275 $110V$ A120220VA-IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $\leq 24V$ A275 $48V$ A275110VA275 $110V$ A275110VA170 $220V$ A150110VA150IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $\leq 24V$ A275 $48V$ A275110VA170 $220V$ A150150150				
$\begin{array}{c} 230 \lor  k \Downarrow  104 \\ 400 \lor  k \Downarrow  181 \\ 500 \lor  k \Downarrow  199 \\ 690 \lor  k \Downarrow  312 \end{array}$		1000V	A	85
$ \begin{array}{c c c c c c c } & 400 \lor & k \lor & 181 \\ & 500 \lor & k \lor & 199 \\ & 690 \lor & k \lor & 312 \end{array} \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series $ \begin{array}{c c c c c c } & \leq 24 \lor & A & 275 \\ & 48 \lor & A & 275 \\ & 48 \lor & A & 275 \\ & 75 \lor & A & 275 \\ & 110 \lor & A & 120 \\ & 220 \lor & A & - \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series $ \begin{array}{c c c c c c } & \leq 24 \lor & A & 275 \\ & 48 \lor & A & 275 \\ & 48 \lor & A & 275 \\ & 75 \lor & A & 275 \\ & 110 \lor & A & 170 \\ & 220 \lor & A & 150 \end{array} $ IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series $ \begin{array}{c c c } & \leq 24 \lor & A & 275 \\ & 110 \lor & A & 170 \\ & 220 \lor & A & 150 \end{array} $	Rated operational power AC-1 (1≤40°C)	000)(	/	404
$ \begin{array}{c cccc} & 500 \lor & kW & 199 \\ 690 \lor & kW & 312 \end{array} \\ \hline \begin{tabular}{ll} IEC max current le in DC1 with L/R \leq 1ms with 1 poles in series \end{array} \\ & \leq 24 \lor & A & 275 \\ 48 \lor & A & 275 \\ 75 \lor & A & 275 \\ 110 \lor & A & 120 \\ 220 \lor & A & - \end{array} \\ \hline \begin{tabular}{ll} IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series \end{array} \\ & \leq 24 \lor & A & 275 \\ 48 \lor & A & 275 \\ 48 \lor & A & 275 \\ 75 \lor & A & 275 \\ 110 \lor & A & 170 \\ 220 \lor & A & 150 \end{array} \\ \hline \begin{tabular}{ll} IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series \end{array} \\ & \qquad \qquad$				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				
IEC max current le in DC1 with L/R < 1ms with 1 poles in series				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	IEC may aurrent to in DC1 with L/R < 1mg with 1 palas in sories	090 V	KVV	312
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	The max current is in DCT with $L/R \le 100$ with 1 poles in series	<24\/	٨	075
$\begin{array}{c cccc} 75 & A & 275 \\ 110 & A & 120 \\ 220 & A & - \end{array}$ IEC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series $\begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c cccc} & 110 \ & A & 120 \\ & 220 \ & A & - \end{array} \\ \hline \mbox{IEC max current le in DC1 with L/R \le 1ms with 2 poles in series} \\ & \le 24 \ & A & 275 \\ & 48 \ & A & 275 \\ & 75 \ & A & 275 \\ & 110 \ & A & 170 \\ & 220 \ & A & 150 \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{Substantial constraints} \\ \hline Substantial co$				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
IEC max current le in DC1 with L/R < 1ms with 2 poles in series				-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R < 1ms with 2 notes in series	220 V	~	
$\begin{array}{cccc} 48 \mbox{V} & \mbox{A} & 275 \\ 75 \mbox{V} & \mbox{A} & 275 \\ 110 \mbox{V} & \mbox{A} & 170 \\ 220 \mbox{V} & \mbox{A} & 150 \end{array}$ IEC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series $\begin{array}{cccc} \leq 24 \mbox{V} & \mbox{A} & 275 \\ 48 \mbox{V} & \mbox{A} & 275 \end{array}$		<24\/	Δ	275
$\begin{array}{c cccc} 75 V & A & 275 \\ 110 V & A & 170 \\ 220 V & A & 150 \end{array}$ IEC max current le in DC1 with L/R < 1ms with 3 poles in series $\begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c c} 110 \ \ A & 170 \\ 220 \ \ A & 150 \end{array} \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$				
220V   A   150     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   ≤24V   A   275     48V   A   275				
IEC max current le in DC1 with L/R < 1ms with 3 poles in series $\leq 24V$ A $275$ $48V$ A $275$				
≤24V A 275 48V A 275	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2237		
48V A 275		≤24V	А	275
		75V	A	275



**BF195T4E230** FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 275A, AC/DC COIL, 100...250VAC/DC

CONTACTOR, IEC OPERATING CU	JRRENT ITH (A	(C1) =	275A, AC/D 100250	
	110V	А	170	
	2201/	^	150	

	1100	A	170
	220V	А	150
	330V	А	150
IEC max current le in DC1 with L/R $\leq$ 1ms with 4 poles in series		73	
IEC max current le in DCT with L/K = mis with 4 poles in series	<0 4) /		075
	≤24V	A	275
	48V	A	275
	75V	Α	275
	110V	Α	275
	220V	А	275
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 1 poles in series			
	≤24V	А	275
	48V	A	275
	75V	Α	180
	110V	А	90
	220V	Α	-
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	А	275
	48V	A	275
	40V 75V	A	180
	110V	A	140
	220V	A	100
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 3 poles in series			
	≤24V	Α	275
	48V	А	275
	75V	А	180
	110V	A	160
	220V	A	140
	330V	A	100
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 4 poles in series			
	≤24V	Α	275
	48V	Α	275
	75V	А	180
	110V	А	160
	220V	А	160
	330V	A	160
	460V		
	460 V	A	100
Short-time allowable current for 10s (IEC/EN60947-1)		A	1560
Protection fuse			
	gG (IEC)	Α	315
	aM (IEC)	А	250
Making capacity (RMS value)	·	А	1658
Breaking capacity at voltage			
	440V	А	1658
	500V	A	1326
	690V	<u>A</u>	1377
Resistance per pole (average value)		mΩ	0.18
Power dissipation per pole (average value)			
	Ith	W	13
	AC-3	W	6.7
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	Ibin	159
	max	Ibin	159

BF195T4E230



Tightening torque for co	oil terminal			
0 0 1		min	Nm	0.8
		max	Nm	1
Power terminal protect	ion according to IEC/EN 60529			IP00
Mechanical features				
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	1000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50	D/60Hz, 60Hz			
č		min	V	100
		max	V	250
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	, pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
	·	max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
AC average coil consu	mption at 20°C			
-	of 50/60Hz coil powered at 50Hz			
	·	in-rush	VA	160230
		holding	VA	1.53.0
	of 50/60Hz coil powered at 60Hz	Ŭ		
		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	<u> </u>	W	1.53.0
DC coil operating				
DC rated control voltag	je			
		min	V	100
		max	V	250
DC operating voltage				
<b>gg</b> -	pick-up			
	L ala	min	%Us	85 Us min
		max	%Us	110 Us max
		max	,	

OVE electric ENERGY AND AUTOMATION

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

100...250VAC/DC

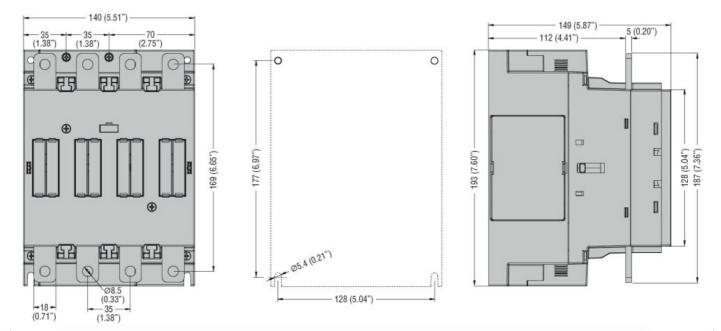
BF195T4E230

	drop-out				
A '1 '1	10000		max	%Us	≤70 Us min
Average coil consumpti	on ≤20°C		in ruch	W	160230
			in-rush holding	W	1.53.0
Max cycles frequency			Tolding	vv	1.55.0
Mechanical operation				cycles/h	1000
Operating times				0,000,00	
Average time for Us co	ntrol				
C C	in AC				
		Closing NO			
			min	ms	50
			max	ms	100
		Opening NO			
			min	ms	35
			max	ms	75
UL technical data					
Yielded mechanical per					
	for three-phase AC moto	or			
			200/208V	HP	60
			220/230V	HP	75
			460/480V	HP	150
General USE			575/600V	HP	150
General USE	Contactor				
	Contactor		AC current	А	275
Short-circuit protection	fuse 600V		Ao cuiteir	Λ	215
	High fault				
	ngn ladit		Short circuit current	kA	100
			Fuse rating	A	400
			Fuse class		J
	Standard fault				
			Short circuit current	kA	10
			Fuse rating	А	400
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature				
			min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C °°	-50
Max altitude			max	<u>0°</u>	80
Max altitude				m	3000
Resistance & Protection Pollution degree					3
Dimensions					J
Dimensions					

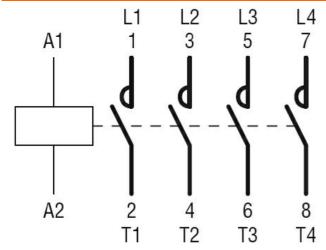
BF195T4E230



## **BF195T4E230** FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 275A, AC/DC COIL, 100...250VAC/DC



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		
	cULus	
ETIM classification		
		EC000066 -
		Dower contector

Power contactor, AC switching

ETIM 8.0