



Product designation Product type designation			Power contactor BF12
Contact characteristics			DITZ
Number of poles		nr.	3
Rated insulation voltage Ui		V	690
Rated impulse withstand voltage Uimp		kV	6
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith		А	28
Operating current			
	Operational current AC1 (≤40°C)	А	28
	Operational current AC3 (≤440V ≤55°C)	А	12
	Operational current AC4 (400V)	А	7.9
Rated operational power AC1 (T≤40°C)			
	230V	kW	10
	400V	kW	18
	500V	kW	23
	690V	kW	32
Rated operational power AC3 (T≤55°C)			
	230V	kW	3.2
	400V	kW	5.7
	415V	kW	6.2
	440V	kW	6.2
	500V	kW	7.5
	690V	kW	10
Short-time allowable current for 10s (IEC/EN	60947-1)	A	150
Protection fuse			
	gG (IEC)	A	32
	aM (IEC)	A	12
Making capacity (RMS value)		A	120
Breaking capacity at voltage			
	Breaking capacity 440V	A	96
	Breaking capacity 500V	A	96
	Breaking capacity 690V	A	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			•
	Power dissipation pole (average value) Ith	W	2
	AC3	W	0.4
Tightening torque for terminals		• •	
	min	Nm	1.5
	max	Nm	1.8
	min	lbft	1.1
	max	lbft	1.5

Tightening torque for coil terminal



BF1210A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
max number of wires simultaneously connectable		nr.	2
Conductor section			
AWG			
	min		16
	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 sect	tion		
	min	mm²	1
	max	mm²	4
Power terminal protection according to IEC/EN 60529			IP20 when wired
Auxiliary contact characteristics			
Type of contact			1 NO
Thermal current Ith		А	10
IEC/EN 60947-5-1 designation			A600 - P600
Operational current AC1 (≤40°C)		Α	28
Operating current AC15			-
	230V	А	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12	0001	7.	
	110V	А	5.7
Operating current DC13	1100	Λ	5.7
Operating current DC15	24V	А	5.7
	48V	A	2.9
	60V	A	2.3
	110V	А	Screw / DIN rail
			35mm
	125V	A	0.6
	220V	A	0.2
	600V	А	1.2
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
		m	3000
Max altitude			
	normal		Vertical plan
	normal allowable		Vertical plan ±30°
Operating position			
Max altitude Operating position Mounting			±30°

BF1210A400 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



BF1210A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ,

400VAC, INO AUXILIARY CONTACT

Operations				
Mechanical life			Cycles	20000000
Electrical life			Cycles	2000000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	Cicli	2000000
		mechanical load	Cicli	2000000
	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	0.8
		max	%Us %Us	0.o 1.1
	drop-out	Παλ	/005	1.1
		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz	max	,	2.00
	pick-up			
	rr	min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
AC operating voltage				
	of 50/60Hz coil powered at 50Hz	in ruch	\/A	75
		in-rush	VA VA	75 9
	of 50/60Hz coil powered at 60Hz	holding	٧٨	3
		in-rush	VA	70
		holding	VA VA	6.5
	of 60Hz coil powered at 60Hz	lioiding		5.0
		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 o	control			
	in AC			
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20

BF1210A400

BF1210A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

14

ms

min

Closing NC



$\begin{array}{c c c c c c } & & & & & & & & & & & & & & & & & & &$			min	ms	14
$\begin{tabular}{ c c c c c } \hline C \\ \hline C \\$			max		28
min ms 7 max ms 18 <i>IL</i> technical data <i>IL</i> tech		Onenia		1113	20
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Opening	-		
L technical data UI-load current (FLA) for three-phase AC motor at 480V A 11 at 600V A 11 ielded mechanical performance for single-phase AC motor at 200/208V hp 1 at 2200/208V hp 5 at 200/208V hp 5 at 460/480V hp 7.5 at 575/600V hp 10 contact rating of auxiliary contacts according to UL contact rating of auxiliary contacts according to UL ieneral USE Contactor AC current A 28 Intensions 6.2 (1.77") (0.24") (0.43") (0.31") (1.38") (3.18			min	ms	7
L technical data ull-load current (FLA) for three-phase AC motor at 480V A 11 at 600V A 11 ielded mechanical performance for single-phase AC motor at 200/208V hp 1 at 220/208V hp 5 at 200/208V hp 5 at 460/480V hp 7.5 at 575/600V hp 10 contact rating of auxiliary contacts according to UL A600 - P600 ieneral USE Contactor AC current A 28 Her features 0.2 0.2 0.2 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3			max	ms	18
ull-load current (FLA) for three-phase AC motor ielded mechanical performance for single-phase AC motor 4110/120V hp 1 41220V hp 2 for three-phase AC motor 4110/120V hp 5 41220/208V hp 5 41200/208V hp 5 41200/208V hp 5 41460/408V hp 7.5 41460/408V hp 7.5 41460/408V hp 7.5 4160/408V hp 7.5 4600 - P600 Her features Contact rating of auxiliary contacts according to UL teneral USE Contact rating of $400 - P600$ 10	II technical data				
at 480V A 11 ielded mechanical performance for single-phase AC motor at 110/120V hp 1 at 230V hp 2 for three-phase AC motor at 200/208V hp 5 at 220/230V hp 5 at 460/480V hp 7.5 at 460/480V hp 7.5					
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} $	ull-load current (FLA) for thre	e-phase AC motor			
$\begin{array}{c} \mbox{fielded mechanical performance} \\ \mbox{for single-phase AC motor} \\ \mbox{at 230V hp 1} \\ \mbox{at 230V hp 5} \\ \mbox{at 220/208V hp 7.5} \\ \mbox{at 240/208V hp 7.5} \\ \mbox{at 240/208V hp 7.5} \\ \mbox{at 240/208V hp 7.5} \\ \mbox{at 3575/600V hp 10} \\ \mbox{Accurrent A 28} \\ \mbox{Dentact rating of auxiliary contacts according to UL} \\ \mbox{Accurrent A 28} \\ \mbox{Dentactor} \\ \mbox{Accurrent A 28} \\ \mbox{Dentactor} \\ \mbox{Accurrent A 28} \\ \mbox{Dentact according to UL} \\ \mbox{Accurrent A 28} \\ Dentact according $			at 480V	А	11
The definition of the second			at 600V	А	11
for single-phase AC motor $ \frac{at 110/120V hp 1}{at 230V hp 5} $ at 200/208V $hp 5$ at 220/230V $hp 5$ at 220/230V $hp 5$ at 460/480V $hp 7.5$ at 575/600V $hp 10$ Contact rating of auxiliary contacts according to UL Accourrent A 28 There features Pollution degree 3 Therefeatures Contactor $(0.24")^{-1}(1.77")^{-1}(1.9")^{-1}(1.38")^{-$	/ielded mechanical performan				
$\begin{array}{c c} at 110/120V & hp & 1 \\ at 230V & hp & 2 \end{array}$ for three-phase AC motor $\begin{array}{c c} at 200/208V & hp & 5 \\ at 220/230V & hp & 7.5 \\ at 600/480V & hp & 7.5 \\ at 575/600V & hp & 10 \end{array}$ Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contactor $\begin{array}{c c} AC current & A & 28 \end{array}$ Therefore the features Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact rating of auxiliary contacts according to UL A600 - P600 Beneral USE Contact A 28 Beneral USE Contact	-				
$\begin{array}{c c} at 230V & hp & 2 \\ \hline \text{for three-phase AC motor} & at 200/208V & hp & 5 \\ at 220/230V & hp & 5 \\ at 460/480V & hp & 7.5 \\ at 460/480V & hp & 10 \\ \hline \text{Contact rating of auxiliary contacts according to UL} & A600 - P600 \\ \hline \text{Beneral USE} & & & & & & & & & & & & & & & & & & &$	for sin	gle-phase AC motor			
for three-phase AC motor at 200/208V hp 5 at 220/230V hp 5 at 460/480V hp 7.5 at 575/600V hp 10 Contact rating of auxiliary contacts according to UL Accourted A 28 Contactor AC current A 28 Contactor 6.2 (0.24") (0.43") (0.43") (0.			at 110/120V	hp	1
at 200/200V hp 5 at 220/200V hp 7.5 at 575/600V hp 10 Contact rating of auxiliary contacts according to UL A600 - P600 Seneral USE Contactor Cont			at 230V	hp	2
at 200/208V hp 5 at 220/208V hp 7.5 at 450/400V hp 7.5 at 575/600V hp 10 A600 - P600 Seneral USE Contactor AC current A 28 Dimensions 3 (0.24") $(1.77")$ $(0.43")$ $(3.18")$ $(3.20")$ $(3.20")$	for thr	ee-phase AC motor			
at 220/230V hp 5 at 460/480V hp 7.5 at 575/600V hp 10 A600 - P600 Accurrent A 28 Contact rating of auxiliary contacts according to UL Accurrent A 28 Contactor Contact rating of auxiliary contacts according to UL Accurrent A 28 Contactor Contact rating of auxiliary contacts according to UL Accurrent A 28 Contactor Contact rating of auxiliary contacts according to UL Contact rating of auxiliary contacts according to UL Accurrent A 28 Contactor Contact rating of auxiliary contacts according to UL Contact rating of auxiliary contacts according to UL Accurrent A 28 Contactor Contact rating of auxiliary contacts according to UL Contact rating of auxiliary contacts			at 200/208)/	hn	5
at 460/480V hp 7.5 at 575/600V hp 10 A600 - P600 Peneral USE Contactor AC current A 28 Contactor Contact rating of auxiliary contacts according to UL Contactor Conta					
at 575/600V hp 10 A600 - P600 Seneral USE Contactor AC current A 28 Pollution degree 3 Dimensions 6.2 + (1.77") + (0.43") + (0.				-	
Contact rating of auxiliary contacts according to UL A600 - P600 Seneral USE Contactor $AC current A 28$ Contact				hp	
Contact rating of auxiliary contacts according to UL A600 - P600 Seneral USE Contactor $AC current A 28$ Ther features Contactor $AC current A 28$ Contactor $AC current$			at 575/600V	hp	10
Beneral USE Contactor AC current A 28 There features 20 Contactor AC current A 28 20 Contactor AC current A 28 20 Contactor 3 20 Contactor $(0.24^{\circ}) - (1.77^{\circ}) - (0.43^{\circ}) - (1.77^{\circ}) - (0.43^{\circ}) - (1.77^{\circ}) - (1.77^{\circ}$	Contact rating of auxiliary cont	acts according to LI		•	
Contactor AC current A 28 Polution degree 3 Dimensions 6.2 (0.24") (0.43") (0.24") (0.4") (0.24") (1000 - F 000
Difference and the second sec					
Diher features Pollution degree 3 Dimensions $\begin{pmatrix} 45 \\ (0.24") & (0.43") \\ (0.24") & (0.43") \\ (0.24") & (0.43") \\ (0.43") & (0.43") \\ (0.54") & (0.43") \\ (0.54") & (0.54") \\ (0.54") &$	Conta	ctor			
Diher features Pollution degree 3 Dimensions $\begin{pmatrix} 45 \\ (0.24") & (0.43") \\ (0.24") & (0.43") \\ (0.24") & (0.43") \\ (0.43") & (0.43") \\ (0.54") & (0.43") \\ (0.54") & (0.54") \\ (0.54") &$			AC current	А	28
Pollution degree 3 Dimensions	Other features				
Dimensions (6.2 (0.24") (0.43") (0.					0
$\begin{array}{c} 6.2 \\ (0.24") \\ \hline \\ (0.24") \\ \hline \\ (0.43") \\ \hline \\ (0.$					3
$ \begin{array}{c} 6.2 \\ (0.24") \\ \hline \\ (0.24") \\ \hline \\ \hline \\ (0.24") \\ \hline \\ \hline \\ (0.43") \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \\ \hline $	Dimensions				
$ \begin{array}{c} 6.2 \\ (0.24") \\ \hline \\ (0.24") \\ \hline \\ \hline \\ (0.24") \\ \hline \\ \hline \\ (0.43") \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \\ \hline $	45				
$\begin{array}{c} 6.2 \\ (0.24") \\ \hline \\ (0.24") \\ \hline \\ (0.43") \\ \hline \\ (0.43") \\ \hline \\ (0.43") \\ \hline \\ (0.31") \\ \hline \\ (0.31") \\ \hline \\ (0.31") \\ \hline \\ \\ (0.31")$					
(0.24") - (0.43") (0.24") - (0.43") (
(0.24") - (0.43") (0.24") - (0.43") (62 10		0 > 0	0 7	
7.9 $(0.31^{"})$ 14.6		u i			
7.9 $(0.31^{"})$ 14.6	10 0 111			19")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") (0.31"	10.041		\$ A	.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") (0.31"	10 0 111	3")		.18")	
95 95 16 16 16 16 16 16 16 16 16 16	10 0 111	3")		.18")	
90 90 90 90 90 90 90 90 90 90		3")		.18")	
90 90 90 90 90 90 90 90 90 90	10 0 111	3")		.18")	
90 90 90 90 90 90 90 90 90 90		3")		.18")	
90 90 90 90 90 90 90 90 90 90		3")		.18")	
90 90 90 90 90 90 90 90 90 90		3")		.18")	
90 90 90 90 90 90 90 90 90 90	10.041	3")		.18")	
90 90 90 90 90 90 90 90 90 90		3")		.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9		3")		.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9		3")		.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9				.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9			() (3.19 ⁽¹⁾) (3.19 ⁽¹⁾) (3.	.18")	
7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9 (0.31") 7.9			() (3.19 ⁽¹⁾) (3.19 ⁽¹⁾) (3.	.18")	
7.9 - 14.6 RF38 81.2 (3.20")			() (3.19 ⁽¹⁾) (3.19 ⁽¹⁾) (3.	.18")	
7.9 - 14.6 RF38 81.2 (3.20")			() (3.19 ⁽¹⁾) (3.19 ⁽¹⁾) (3.	.18")	
7.9 - 14.6 RF38 81.2 (3.20")			() (3.19 ⁽¹⁾) (3.19 ⁽¹⁾) (3.	.18")	
7.9 - 14.6 (0.31") - 14.6				.18")	
7.9 - 14.6 (0.31") - 14.6				.18")	
7.9 - 14.6 (0.31") - 14.6		3")		.18")	
7.9 - 81.2 (0.31") - 14.6		3")		.18")	
7.9 - 81.2 (0.31") - 14.6		3")		.18")	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		3")	(3.19) (1.6.7)	.18")	
(0.31") $(0.57")$ $(0.57")$ $(0.57")$ $(0.57")$		3")	(3.19) (1.6.7)	.18")	
(0.31")		3")	(3) (12) (12) (12) (12) (12) (12) (12) (12		
(0.57")		3")	(3) (12) (12) (12) (12) (12) (12) (12) (12		
		3") 3" 3" 3" 3" 3" 3" 3" 4" 3" 4" 3" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4	(3) (12) (12) (12) (12) (12) (12) (12) (12		
		3") 3" 3" 3" 3" 3" 3" 3" 4" 3" 4" 3" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4	(3) (12) (12) (12) (12) (12) (12) (12) (12		

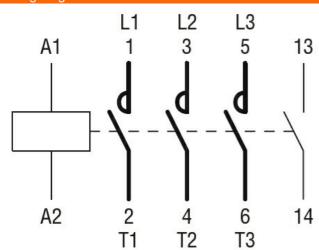
BF1210A400

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



BF1210A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

Wiring diagrams



Certifications and compliance

Certifications	
	CSA C22.2 n° 60947-1
	CSA C22.2 n° 60947-4-1
	IEC/EN 60947-1
	IEC/EN 60947-4-1
	UL 60947-1
	UL 60947-4-1
Compliance	
	CCC
	cULus
	EAC
ETIM 6 classification	

ETIM 6 classification

EC000066 - Power contactor, AC switching