



Product designation Power contactor Product type designation BF12

Product type designation			DF IZ
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		Α	28
Operational current le			
	AC-1 (≤40°C)	Α	28
	AC-1 (≤55°C)	Α	23
	AC-1 (≤70°C)	Α	20
	AC-3 (≤440V ≤55°C)	Α	12
	AC-4 (400V)	Α	7.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	3.2
	400V	kW	5.7
	415V	kW	6.2
	440V	kW	5.5
	500V	kW	5
	690V	kW	5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	10
	400V	kW	18
	500V	kW	23
	690V	kW	32
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	17
	48V	Α	15
	75V	Α	13
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	20
	48V	Α	20
	75V	Α	18
	110V	Α	13
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
F	≤24V	Α	22
	48V	Α	22
	75V	A	20
	110V	A	16
	1100	, ,	. •

	220V	Α	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	16
	220V	Α	12
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
·	≤24V	Α	12
	48V	Α	11
	75V	Α	10
	110V	Α	2
	220V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
The max current le in boo-boo with bit 2 10ms with 2 poles in series	≤24V	Α	15
	48V	A	13
	75V	A	12
	110V	A	8
150	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			4.0
	≤24V	Α	18
	48V	Α	18
	75V	Α	15
	110V	Α	12
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	15
	48V	Α	15
	75V	Α	15
	110V	Α	16
	220V	Α	7
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150
Protection fuse			
	gG (IEC)	Α	32
	aM (IEC)	Α	12
Making capacity (RMS value)	· /	Α	120
Breaking capacity at voltage			
J. Sept. Service 3	440V	Α	96
	500V	A	96
	690V	A	94
Resistance per note (average value)	090 V	mΩ	2.5
Resistance per pole (average value)		11177	۷.ن
Power dissipation per pole (average value)	I±L	147	2
	Ith	W	2
	AC3	W	0.4
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

		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		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
	ction according to IEC/EN 60529			IP20 when wired
Mechanical features				
Operating position				Maderi
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Moight			~	359
Weight Conductor section			g	359
Conductor section	ANAC // careil acan divertor acastic in			
	AWG/kcmil conductor section			10
Auvilian, contact char	actoriation	max		10
Auxiliary contact chara Thermal current Ith	acteristics		А	10
IEC/EN 60947-5-1 de	aignation		A	A600 - P600
Operating current AC	-			A000 - P000
Operating current AC	15	230V	Α	3
		400V	A	1.9
		500V	A	1.4
Operating current DC	12	300 V		1.4
Operating current DC	12	110V	Α	5.7
Operating current DC	12	1100	^	5.7
Operating current DC	15	24V	Α	5.7
		48V	A	2.9
		60V	A	2.3
		110V	A	2.3 1.25
		110V 125V	A	1.25
		220V	A	0.55
		600V	A	0.33
Operations				J. <u>Z</u>
Mechanical life			cycles	20000000
Electrical life			cycles	2000000
Safety related data			Oyolea	200000
•	0d according to EN/ISO 13489-1			
i chomance level DI	od docording to E14/100 10400-1	rated load	cycles	2000000
		mechanical load	cycles	2000000
Mirror contate accordi	ing to IEC/EN 609474-4-1	medianidal idad	cycles	
	IIIY 10 1EC/EIN 0034/4-4-1			yes
EMC compatibility				yes
AC coil operating	:0/60Hz		V	110
Rated AC voltage at 5	00/00F12		V	110

AC operating voltage	(50/001)			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	max	7003	110
	arop out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	THOX.	7000	
	pick-up			
	Provide	min	%Us	85
		max	%Us	110
	drop-out			
	·	min	%Us	20
		max	%Us	55
AC average coil consu	mption 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			0\/0 00/b	2600
			cycles/h	3600
Operating times			cycles/n	3600
			cycles/n	3600
Operating times	in AC		cycles/n	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	8 24 10
Operating times	in AC Closing NO Opening NO	max	ms ms	8 24
Operating times	in AC Closing NO	max min max	ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NO	max min max min	ms ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NO Closing NC	max min max	ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NO	max min max min max	ms ms ms ms	8 24 10 20 14 28
Operating times	in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC	max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	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	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC opening NC	max min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC opening NC	min max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC for three-phase AC motor orformance for single-phase AC motor	max min max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC opening NC	max min max min max min max at 480V at 600V 110/120V 230V	ms ms ms ms ms ms hs	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NO Closing NC Opening NC Opening NC for three-phase AC motor orformance for single-phase AC motor	min max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18

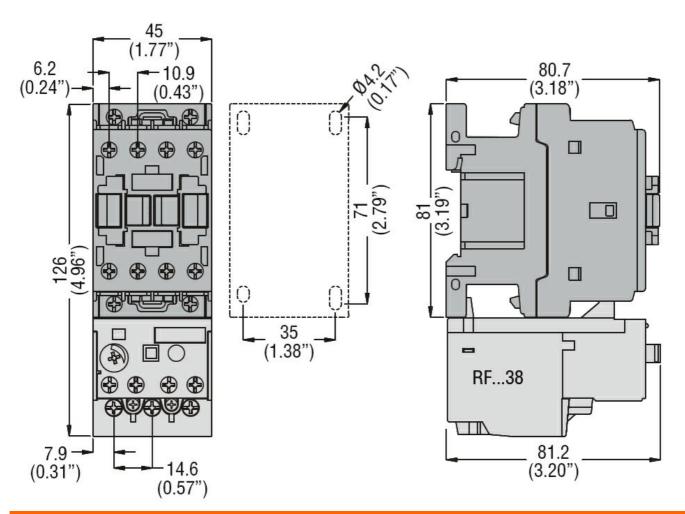




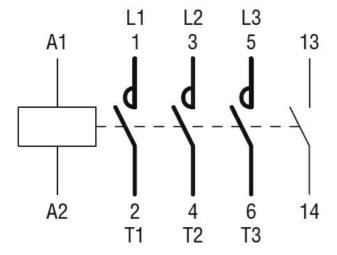
		460/480V	HP	7.5
		575/600V	HP	10
General USE				
	Contactor			
		AC current	Α	28
	Auxiliary contacts			
	•	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
	Oldinadia ladit	Short circuit current	kA	5
		Fuse rating	A	70
Contact rating of au	xiliary contacts according to UL	T doo raming		A600 - P600
Ambient conditions	Amary cornacts according to GE			71000 1 000
Temperature				
Temperature	Operating temperature			
	Operating temperature	min	°C	-50
		max	°C	70
	Storage temperature	Illax		70
	Storage temperature	ma in	°C	00
		min	°C	-60
NA ICC - L.		max		80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree			<u></u>	3
Dimensions				

ENERGY AND AUTOMATION

Three-pole contactor, IEC operating current le (AC3) = 12A, 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 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC



BF1210A110

Three-pole contactor, IEC operating current le (AC3) = 12A, AC coil 50/60Hz, 110VAC, 1NO auxiliary contact

cULus			
FAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching