



Product designation Product type designation			Power contactor BF12
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	6.2
	500V	kW	7.5
	690V	kW	10
Rated operational power AC-1 (T≤40°C)			-
1 1 - (7)	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	A	20
	75V	Α	18
	110V	Α	13
	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			•
	≤24V	Α	22
	48V	A	22
	75V	A	20
	110V	A	16
	1100	77	. 0



	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	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
120 max carrent to in 200 200 mar 2/11 = 10 ma mar 2 poise in conse	≤24V	Α	15
	48V	A	13
	75V	A	12
	110V	A	8
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	ZZU V		
TEO MAX current le in 200-2003 with E/K > 13ms with 3 poles in series	≤24V	۸	18
		A	
	48V	A	18
	75V	A	15
	110V	A	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			
	440V	Α	96
	500V	Α	96
	690V	Α	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
1 1 1 1 1 1	lth	W	2
	AC-3	W	0.4
Tightening torque for terminals	, 10 0	• •	U. 1
rightening torque for terminale	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
Tightoning targue for call terminal	max	lbin	1.5
Tightening torque for coil terminal		N I .	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



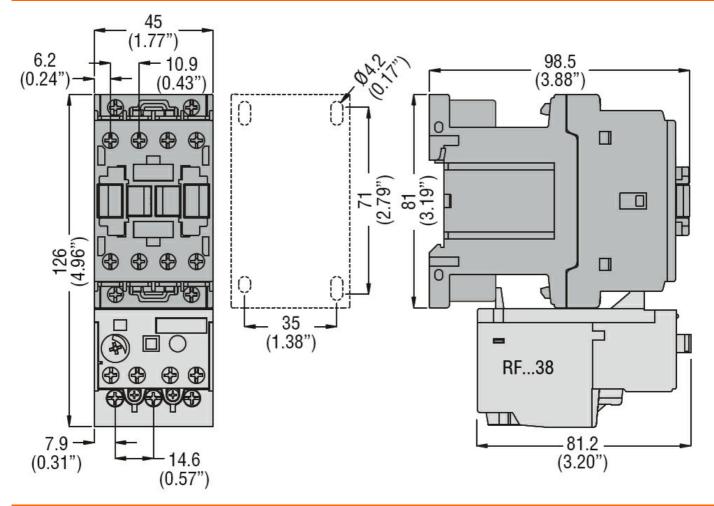
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMO (14			
	AWG/Kcmil			10
	Florible w/e lug conductor coetion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIax	111111	0
	Trexible 6/W rag conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	· · · · · ·		•
	Trouble mar modulated opade rag contactor cocaen	min	mm²	1
		max	mm²	4
De la transferior	d'access d'acces (a 150/5N 00500			IP20 when
Power terminal protein	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	500
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		Α	10 A600 - P600
Thermal current Ith	esignation			A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 15		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation 15	400V 500V	A A A	3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V 500V 110V	A A A	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 15	400V 500V 110V 24V	A A A	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 15	400V 500V 110V 24V 48V	A A A A	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 15	400V 500V 110V 24V 48V 60V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Mechanical life	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 15 12 13	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 15 12 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 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 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 15 12 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 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 20000000 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 15 12 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 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 20000000

DO note al control control					000
DC rated control voltage	ge			V	220
DC operating voltage	niak un				
	pick-up		min	%Us	70
			max	%Us	125
	drop-out		IIIdX	7003	120
	drop out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C			,,,,,	
5			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ontrol				
	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
	in DC				
		Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
			max	ms	17
UL technical data	for the contract A O				
Full-load current (FLA)	i for three-phase AC	THOTOF	£ 400\/	٨	44
			at 480V	A	11
Violded machanical	rformanas		at 600V	Α	
Yielded mechanical pe		C motor			
	for single-phase A	IO IIIOIOI	110/120V	HP	1
				HP	2
	for three-phase A0	? motor	230V	ПГ	
	ioi iiiiee-piiase At	o motor	200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	7.5
			575/600V	HP	10
General USE			373/0007	- 111	
General OOL	Contactor				
	Ouridoloi		AC current	Α	28
	Auxiliary contacts		AO GUITEIR		
	nunillary corrects		AC voltage	V	600
			AC voltage AC current	V A	10
			/ Council		. •

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, DC COIL, 220VDC, 1NO AUXILIARY CONTACT

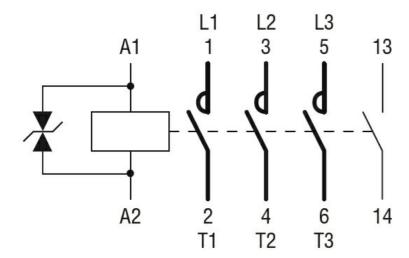
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	70
Contact rating of au	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				



Wiring diagrams

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, DC COIL, 220VDC, 1NO AUXILIARY CONTACT



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

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching