



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC AUXILIARY CONTACT



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	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	A	13
	110V	A	6
150 to in DO4 with 1/D < 4 with 0 in a single	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40.4 17	Δ.	00
	≤24V	A	20
	48V	A	20
	75V	A	18
	110V 220V	A	13 1
IEC may current le in DC1 with L/D < 1mc with 3 notes in series	2200	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	~2A\/	٨	22
	≤24V 48V	A	22
	48 V 75 V	A A	22 20
	110V	A	16
	1100	^	10





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC AUXILIARY CONTACT

	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	2201		
TEO HILL OUT ON THE BOO BOO WILL ETT = TOTAL WILL E POICE IN SCHOOL	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V		
		A	8 2
150 many summer the improvement to improve post with 1/D < 45 many with 2 males in a said a	220V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-0.07	Δ.	4.0
	≤24V	A	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			
0 1 m 3 m 3 m 3 m 3 m	440V	Α	96
	500V	A	96
	690V	Α	94
Resistance per pole (average value)	3001	mΩ	2.5
Power dissipation per pole (average value)		11122	2.0
1 Ower dissipation per pole (average value)	Ith	W	2
		W	
Tightoning torque for terminals	AC-3	VV	0.4
Tightening torque for terminals		N I.a.:	4.5
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC AUXILIARY CONTACT

		max	Ibin	0.74
	s simultaneously connectable		Nr.	2
Conductor section	ANA(O/I/C:1			
	AWG/Kcmil	may		10
	Florible w/o lug conductor acction	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIdx	111111	0
	Tiexible of Wildy defiductor deduction	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Dower terminal prote	action according to IEC/EN 60520			IP20 when
Power terminal prote	ection according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	364
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	aracteristics			
Thermal current Ith			A	10
IEC/EN 60947-5-1 d				A600 - P600
Operating current A	C15			
		230V	A	3
		400V	A	1.9
O	040	500V	Α	1.4
Operating current Do	C12	440)/	۸	<i>-</i> 7
On a ratio at a commant D	040	110V	A	5.7
Operating current Do	C13	24V	۸	F 7
		48V	A A	5.7 2.9
		60V	A	2.3
		110V	A	2.3 1.25
		110V 125V	A	1.1
		220V	A	0.55
		600V	Α	0.2
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	2000000
Safety related data				
	310d according to EN/ISO 13/80-1			
•	5 100 according to £14/150 15469-1			
•	Trod according to EN/130 13409-1	rated load	cycles	2000000
Performance level B	•	rated load nechanical load	cycles cycles	2000000 20000000
Performance level B	•		-	
Performance level B	m		-	20000000





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC AUXILIARY CONTACT

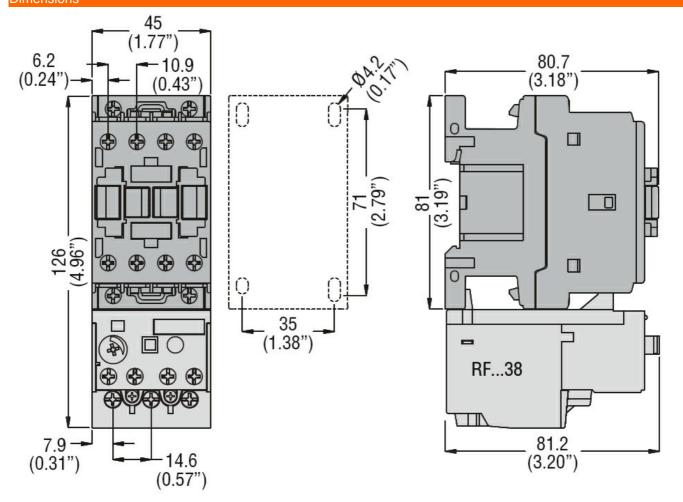
Rated AC voltage at 60Hz		V	48
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out		0/11-	00
	min	%Us %Us	20 55
AC average coil consumption at 20°C	max	/605	55
of 60Hz coil powered at 60Hz			
01 001 12 0011 powerod at 001 12	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz	<u> </u>	W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control			
in AC			
Closing NO			0
	min	ms	8
Opening NO	max	ms	24
Opening NO	min	ms	10
	max	ms	20
Closing NC		•	
S	min	ms	14
	max	ms	28
Opening NC			
	min	ms	7
	max	ms	18
UL technical data			
Full-load current (FLA) for three-phase AC motor	ot 400\/	۸	11
	at 480V at 600V	A A	11 11
Yielded mechanical performance	at 000 v		11
for single-phase AC motor			
isi single phase //o motor	110/120V	HP	1
	230V	HP	2
for three-phase AC motor			
·	200/208V	HP	5
	220/230V	HP	5
	460/480V	HP	7.5
	575/600V	HP	10
General USE			
Contactor	A O	Λ	20
Accelliant agents sto	AC current	Α	28
Auxiliary contacts	AC valtage	\/	600
	AC voltage AC current	V A	10
	DC voltage	V	250
	DC voltage DC current	A	1
Chart sire it protection from COOV		<u> </u>	
Short-circuit protection fuse, 600V			





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC AUXILIARY CONTACT

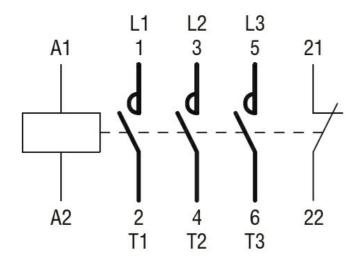
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
Sta	ndard fault			
		Short circuit current	kA	5
		Fuse rating	Α	70
Contact rating of auxiliary co	ontacts according to UL			A600 - P600
Ambient conditions				
Temperature				
Ope	erating temperature			
		min	°C	-50
		max	°C	70
Sto	rage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				



Wiring diagrams

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 48VAC, 1NC 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