

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 60HZ, 48VAC, 4NC



Product designation Product type designation			Power contactor BF18
Contact characteristics			
Number of poles		Nr.	4
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	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	18
	AC-4 (400V)	A	8.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
01 + 12 - 14 - 14 - 15 - 15 - 15 - 15 - 15 - 15	690V	kW	36
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	. 0 (150)		00
	gG (IEC)	A	32
Making appairs (DMC value)	aM (IEC)	A	20
Making capacity (RMS value)		Α	180
Breaking capacity at voltage	440\/	۸	1 1 1
	440V 500V	A	144 120
	690V	A A	94
Resistance per pole (average value)	090 V	mΩ	2.5
Power dissipation per pole (average value)		11132	2.0
Tower dissipation per pole (average value)	Ith	W	2.6
	AC-3	W	0.8
Tightening torque for terminals	7.00	• • •	
g.neg terque ter terminate	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





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 60HZ, 48VAC, 4NC

AWG/Kcmil Piexible w/o lug conductor section min min min mm² 1 max mm² 6 min mm² 1 max mm² 6 min mm² 1 max mm² 6 min max mm² 1 max m² 1 max m²	Conductor section				
Flexible w/o lug conductor section	Conductor Section	AWG/Kcmil			
Flexible c/w lug conductor section		/ W G/Komiii	max		10
Flexible c/w lug conductor section		Flexible w/o lug conductor section			
Flexible c/w lug conductor section		•	min	mm²	1
Plexible with insulated spade lug conductor section			max	mm²	6
Plexible with insulated spade lug conductor section Flexible with insulated spade lug conductor section min min max 1		Flexible c/w lug conductor section			
Flexible with insulated spade lug conductor section			min		
Power terminal protection according to IEC/EN 60529 IP20 when properly wire Mechanical features IP30 when properly wire Mechanical plant allowable IP30 when properly wire Mechanical plant IP30 when properly wire Mechanical plant IP30 when properly wire Mechanical features IP30 when properly wire features IP30 when for features IP30 when features		=	max	mm ²	4
Power terminal protection according to IEC/EN 60529 Table 20 Table 3		Flexible with insulated spade lug conductor section			4
Power terminal protection according to IEC/EN 60529 IP20 when properly wire wire properly wire wire properly wire wire properly wire properly wire wire wire wire properly wire wire wire wire wire wire wire wire					
Provide terminal protection according to IEC/EN 60929 Properly wire			Пах	111111	
Mechanical features Operating position normal allowable Vertical plan allowable ± 50° Fixing Screw / DIN 35mm Weight g 360 Conductor section max 10 Auxiliary contact characteristics Temal current lth A 32 IEC/EN 60947-5-1 designation A600 - P600 Operations Cycles 20000000 Electrical life cycles 20000000 Electrical life cycles 1600000 Safety related data rated load cycles 1600000 Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 Mirror contats according to IEC/EN 609474-4-1 YES 20000000 EMC compatibility yes AC coil operating Rated AC voltage at 60Hz V 48 AC operating voltage min %Us 80 AC operating voltage min %Us 80 AC average coil consumption at 20°C min %Us 55 AC average coil consumption at 20°C	Power terminal protect	ction according to IEC/EN 60529			
Operating position Note that plant allowable Vertical plant 430° Fixing Screw / DIN 35mm Weight g 360 Conductor section AWG/kcmil conductor section May Symmetry A May Symmetry	Mechanical features				7 - 7
Fixing Screw / DIN 35mm					
Fixing Screw DIN 35mm	•		normal		Vertical plan
Name			allowable		±30°
AWG/kcmil conductor section	Fixing				Screw / DIN rail 35mm
AWG/kcmil conductor section max 10 Auxiliary contact characteristics Thermal current lth A 32 IEC/EN 60947-5-1 designation S 20000000 Operations Mechanical life Cycles 20000000 Electrical life Cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 Frated load Cycles 1600000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 16000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated load Cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 Frated	Weight			g	360
Max 10 Auxiliary contact characteristics	Conductor section				
Auxiliary contact characteristics		AWG/kcmil conductor section			
Thermal current lth			max		10
EEC/EN 60947-5-1 designation		acteristics		•	0.0
Operations Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1600000 200000 Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes AC coil operating Rated AC voltage at 60Hz V 48 AC operating voltage min max wus wus 110 wus wus 20 drop-out min wus wus 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		alam atlan		А	
Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data rated load performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1600000 2000000 Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes AC coil operating Rated AC voltage at 60Hz V 48 AC operating voltage min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		signation			A600 - P600
Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes AC coil operating Rated AC voltage at 60Hz Of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz	<u> </u>			cycles	20000000
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000					
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 200000000				0,0100	100000
rated load cycles 1600000 mechanical load cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes AC coil operating Rated AC voltage at 60Hz V 48 AC operating voltage min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz of contains cycles 1600000 voltage voltage voltage voltage voltage voltage voltage voltage voltage volt	•	0d according to EN/ISO 13489-1			
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility AC coil operating Rated AC voltage at 60Hz Of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		· ·	rated load	cycles	1600000
EMC compatibility AC coil operating Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		m	echanical load	-	20000000
AC coil operating Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz	Mirror contats accordi	ng to IEC/EN 609474-4-1			YES
Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz					yes
AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz					
of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		60Hz		V	48
pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz	AC operating voltage				
min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		•			
drop-out drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		ріск-ир		0/116	0.0
drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz					
min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		dron-out	IIIdX	/0US	110
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz		αιορ-οαι	min	%l Js	20
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz					
of 60Hz coil powered at 60Hz	AC average coil cons	umption at 20°C			-
·	Č				
		·	in-rush	VA	75
holding VA 9			holding	VA	9
Dissipation at holding ≤20°C 50Hz W 2.5				W	2.5
Max cycles frequency					
Mechanical operation cycles/h 3600	Mechanical operation			cycles/h	3600



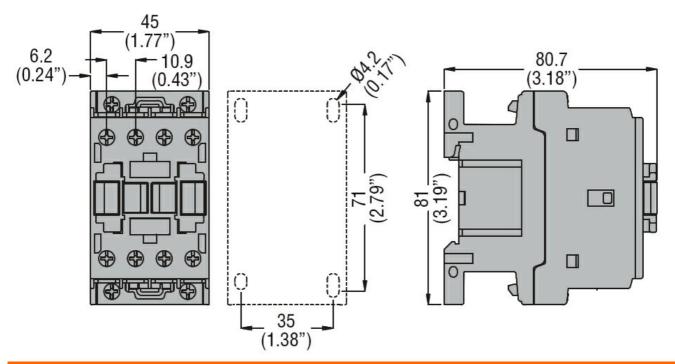
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 60HZ, 48VAC, 4NC

Operating times				
Average time for Us	control			
J	in AC			
	Closing NO			
	Ç	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
UL technical data				
Full-load current (FL	A) for three-phase AC motor			
		at 480V	Α	14
		at 600V	Α	17
Yielded mechanical	performance			
	for single-phase AC motor			
		110/120V	HP	1
		230V	HP	3
	for three-phase AC motor			
		200/208V	HP	5
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Contact rating of aux	xiliary contacts according to UL			SI - A600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ction			
Pollution degree				3
Dimensions				

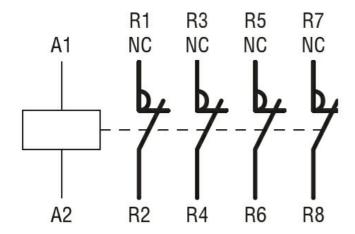


ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, AC COIL 60HZ, 48VAC, 4NC



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

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching