



Product designation			Power contactor
Product type designation			BF09
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	25
Operational current le			
	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4.2
	415V	kW	4.5
	440V	kW	4.8
	500V	kW	5.5
	690V	kW	7.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
	690V	kW	27
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
•	≤24V	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		- •	
sanoncio in bot mai bitt = inio mai o poloo ii dolloo	≤24V	Α	20
	48V	A	20
	75V	A	20
	110V	A	15
	1100	$^{\wedge}$	10



	220V	Α	10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
120 max current le in 201 with 2/102 mis with 4 poles in series	<04)/	٨	00
	≤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			
TEC max current le in DC3-DC3 with L/K \(\) 13ms with 1 poles in series	.0.43.4		4.0
	≤24V	Α	10
	48V	Α	9
	75V	Α	8
	110V	Α	2
	220V	Α	_
IFC may current to in DC2 DC5 with L/D < 15mg with 2 notes in series	2201		
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		_	
	≤24V	Α	13
	48V	Α	11
	75V	Α	10
	110V	Α	7
	220V	Α	2
IFO many assessment to its DOO DOC with 1/D 445 and 1/1 Oct 1/2	22U V		۷
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	15
	48V	Α	15
	75V	Α	13
	110V	Α	11
	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	12
	220V	Α	7
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150
Protection fuse			
	gG (IEC)	Α	25
	aM (IEC)	Α	10
Making capacity (RMS value)	um (120)	A	90
			3 0
Breaking capacity at voltage			
	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)		mΩ	2.5
		11124	2.0
Power dissipation per pole (average value)	• • •		4.0
	Ith	W	1.6
	AC-3	W	0.2
Tightening torque for terminals			
	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	lbin	0.8
	1111/1	וווטו	0.0



May number of wires	cientilla manualti anno estable	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AVIG/RCIIII	max		10
	Flexible w/o lug conductor section	IIIax		10
	r lexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	. 19/10/10 9/11 10/9 00/10/00/10 000/10/1	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Dawar tarminal proto	etion apparding to IEC/EN 60500			IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	358
Conductor section			9	
oonaador oodiidii	AWG/kcmil conductor section			
	AW Charlin conductor cocion	max		10
Auxiliary contact char	acteristics			
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	•			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC	12			
		110V	Α	5.7
				0
Operating current DC	313			<u> </u>
Operating current DC	c13	24V	А	5.7
Operating current DC	:13		A A	
Operating current DC	:13	24V		5.7
Operating current DC	:13	24V 48V	Α	5.7 2.9
Operating current DC	213	24V 48V 60V	A A	5.7 2.9 2.3
Operating current DC	:13	24V 48V 60V 110V	A A A	5.7 2.9 2.3 1.25
Operating current DC	:13	24V 48V 60V 110V 125V	A A A	5.7 2.9 2.3 1.25 1.1
· · ·	:13	24V 48V 60V 110V 125V 220V	A A A A	5.7 2.9 2.3 1.25 1.1 0.55
Operations		24V 48V 60V 110V 125V 220V	A A A A	5.7 2.9 2.3 1.25 1.1 0.55
Operations Mechanical life		24V 48V 60V 110V 125V 220V	A A A A	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life	:13	24V 48V 60V 110V 125V 220V	A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V	A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		24V 48V 60V 110V 125V 220V	A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A Cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000

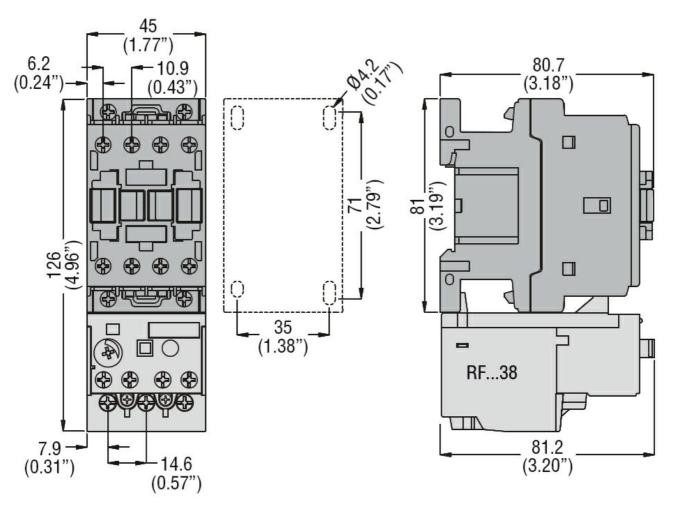


50/60Hz				
of EO/COUz goil noward	ot EOU-			
-				
	pion up	min	%Us	80
		max	%Us	110
1	drop-out			
		min	%Us	20
-		max	%Us	55
·				
	pick-up		0/11-	0.5
				85 110
	dron-out	max	/005	110
,	arop out	min	%Us	20
		max		55
sumption at 20°C				
	at 50Hz			
•		in-rush	VA	75
		holding	VA	9
of 50/60Hz coil powered	at 60Hz			
				70
. (0011	0011	holding	VA	6.5
of 60Hz coil powered at	60HZ	in ruch	١/٨	75
				75 9
1 <20°C 50Hz		noiding		2.5
			***	2.0
			cycles/h	3600
			cycles/h	3600
control			cycles/h	3600
			cycles/h	3600
control in AC	Closing NO		cycles/h	
control in AC	Closing NO	min	ms	8
control in AC				
control in AC	Closing NO Opening NO	min max	ms ms	8 24
control in AC		min max min	ms ms	8 24 10
control in AC	Opening NO	min max	ms ms	8 24
control in AC		min max min max	ms ms ms	8 24 10 20
control in AC	Opening NO	min max min	ms ms	8 24 10 20
control in AC	Opening NO	min max min max min	ms ms ms ms	8 24 10 20
control in AC	Opening NO Closing NC	min max min max min	ms ms ms ms	8 24 10 20
control in AC	Opening NO Closing NC	min max min max min max	ms ms ms ms	8 24 10 20 14 28
control in AC	Opening NO Closing NC Opening NC	min max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
control in AC	Opening NO Closing NC Opening NC	min max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
control in AC	Opening NO Closing NC Opening NC	min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
control in AC A) for three-phase AC motor	Opening NO Closing NC Opening NC	min max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
control in AC A) for three-phase AC motor	Opening NO Closing NC Opening NC	min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
control in AC A) for three-phase AC motor	Opening NO Closing NC Opening NC	min max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
control in AC A) for three-phase AC motor	Opening NO Closing NC Opening NC	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 7.6 0.375
control in AC A) for three-phase AC motor	Opening NO Closing NC Opening NC	min max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
	of 50/60Hz coil powered of 50/60Hz coil powered sumption at 20°C of 50/60Hz coil powered of 50/60Hz coil powered of 60Hz coil powered at	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out drop-out sumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz	of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max drop-out min max drop-out min max drop-out min max sumption at 20°C of 50/60Hz coil powered at 50Hz in-rush holding of 50/60Hz coil powered at 60Hz in-rush holding of 60Hz coil powered at 60Hz in-rush holding	of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out min %Us max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us drop-out min %Us max %Us drop-out min %Us max %Us sumption at 20°C of 50/60Hz coil powered at 50Hz in-rush kholding VA of 50/60Hz coil powered at 60Hz in-rush kholding VA of 60Hz coil powered at 60Hz in-rush kholding VA of 60Hz coil powered at 60Hz in-rush kholding VA of 60Hz coil powered at 60Hz in-rush kholding VA of 60Hz coil powered at 60Hz in-rush kholding VA of 60Hz coil powered at 60Hz in-rush kholding VA

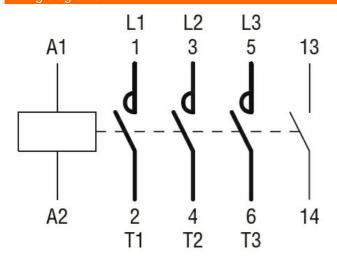


				_
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	on fuse, 600V			_
·	High fault			
	3	Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault	1 000 0.000		
	Staridard radit	Short circuit current	kA	5
		Fuse rating	A	60
Contact rating of auxi	liary contacts according to UL	T doo rainig	- , ,	A600 - P600
Ambient conditions	mary contacts according to OE			A000 - 1 000
Temperature				
remperature	Operating temperature			
	Operating temperature		° C	50
		min	°C	-50 -70
	-	max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ion			
Pollution degree				3
Dimensions				





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

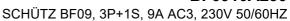
UL 60947-1

UL 60947-4-1

Certificates

CCC







cULus		
EAC		

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching