

3-POLIGES SCHÜTZ, IEC BETRIEBSSTROM LE (AC3) = 230A, AC/DC-SPULE, 60... 130VAC/DC



Product designation			Power contactor
Product type designation Contact characteristics			BF230
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency		IX V	
Sportational modulonoy	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	THO.	A	350
Operational current le			
	AC-1 (≤40°C)	Α	350
	AC-1 (≤55°C)	Α	290
	AC-1 (≤70°C)	Α	250
	AC-3 (≤440V ≤55°C)	Α	230
	AC-4 (400V)	Α	110
Rated operational power AC-3 (T≤55°C)			_
	230V	kW	55
	400V	kW	110
	415V	kW	110
	440V	kW	132
	500V	kW	132
	690V	kW	160
D. () () () () () () () () () (1000V	kW	110
Rated operational current AC-3 (T≤55°C)	2001		
	230V	A	230
	400V 415V	A	230
	440V	A A	230 230
	500V	A	184
	690V	A	165
	1000V	A	100
Rated operational power AC-1 (T≤40°C)	1000 V		100
	230V	kW	132
	400V	kW	230
	500V	kW	253
	690V	kW	397
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
·	≤24V	Α	350
	48V	Α	350
	75V	Α	350
	110V	Α	145
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	Α	350



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	48V	Α	350
	75V	Α	350
	110V	Α	270
	220V	Α	225
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	350
	48V	Α	350
	75V	Α	350
	110V	Α	270
	220V	Α	270
	330V	A	225
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
120 max current to in 201 was 2,112 mile was 1 percent conce	≤24V	Α	350
	48V	A	350
	75V	A	350
	110V	A	350
	220V	A	
IFC may current to in DC2 DC5 with L/D < 15mg with 1 notes in coring	220 V	A	350
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	20 AV	^	250
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	Α	135
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	250
	110V	Α	225
	220V	Α	180
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	250
	110V	Α	250
	220V	Α	225
	330V	Α	180
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
·	≤24V	Α	350
	48V	Α	350
	75V	Α	250
	110V	Α	250
	220V	Α	225
	330V	Α	210
	460V	Α	180
Short-time allowable current for 10s (IEC/EN60947-1)		A	1840
Protection fuse			
	gG (IEC)	Α	400
	aM (IEC)	A	250
Making capacity (RMS value)	aivi (ILO)		2300
Breaking capacity (Kivis value)			2300
Dieaning Capacity at Voltage	440V	٨	1940
		A	1840
	500V	A	1472
Desigtance normale (every resulting)	690V	Α	1296
Resistance per pole (average value)		mΩ	0.18

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Min Min				
Tightening torque for terminals				wer dissipation per pole (average value)
Tightening torque for terminals min max	21	W	Ith	
Min Min	9.3	W	AC-3	
Max Min Min				htening torque for terminals
Min	18	Nm	min	
Min	18	Nm	max	
Tightening torque for coil terminal	159		min	
Tightening torque for coil terminal min max Nm max Nm max Nm	159			
Min max				htening torque for coil terminal
Max	0.8	Nm	min	mermig terque for con termina.
Power terminal protection according to IEC/EN 60529 Mechanical features	1			
Mechanical features	IP00		max	wer terminal protection according to IEC/EN 60529
	11-00			·
Prixing				
Sixing	Marker al alar		1	erating position
Fixing Weight	Vertical plan			
Velight	±30°		allowable	
Operations Mechanical life cycles	Screw			•
Mechanical life Cycles	3000	g		
Electrical life cycles Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min wus max wus drop-out max wus of 50/60Hz coil powered at 60Hz pick-up min wus max wus AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz in-rush vas holding vas of 60Hz coil powered at 60Hz in-rush vas holding vas of 60Hz coil powered at 60Hz in-rush vas holding vas of 60Hz coil powered at 60Hz				
Performance level B10d according to EN/ISO 13489-1 rated load cycles	10000000	-		
Performance level B10d according to EN/ISO 13489-1 rated load cycles EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	1000000	cycles		
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out max %Us of 50/60Hz coil powered at 60Hz pick-up of 50/60Hz coil powered at 60Hz pick-up AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz in-rush vA holding vA of 60Hz coil powered at 60Hz in-rush vA holding vA of 60Hz coil powered at 60Hz in-rush vA holding vA of 60Hz coil powered at 60Hz				•
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage 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 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA				rformance level B10d according to EN/ISO 13489-1
Rated AC voltage at 50/60Hz, 60Hz	1000000	cycles	rated load	
Rated AC voltage at 50/60Hz, 60Hz min V max V AC operating voltage	yes			IC compatibility
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us drop-out max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA				coil operating
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out of 50/60Hz coil powered at 60Hz pick-up fin %Us max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us drop-out max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA				ted AC voltage at 50/60Hz, 60Hz
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	60	V	min	•
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us max %Us drop-out max %Us of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush vA holding vA of 50/60Hz coil powered at 60Hz in-rush vA holding vA of 60Hz coil powered at 60Hz in-rush vA holding vA of 60Hz coil powered at 60Hz in-rush vA holding vA	130	V	max	
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Pick-up min %Us max %Us Max %Us Max %Us Max %Us Max %Us Max				, , ,
Min MUs max MUs				
Max %Us	80 Us min	%l le	min	ριοκ αρ
drop-out max %Us	110 Us max			
max %Us	110 05 max	/0US	IIIax	drop out
of 50/60Hz coil powered at 60Hz pick-up min %Us max %Us drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	<70 Ha:	0/116		arop-out
pick-up min %Us max %Us drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	≤70 Us min	%US	max	# F0/0011 - 17 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
drop-out drop-out max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA				·
drop-out max %Us Max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA		04::	_	pick-up
drop-out Max %Us AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA	80 Us min			
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	110 Us max	%Us	max	
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA				drop-out
of 50/60Hz coil powered at 50Hz in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	≤70 Us min	%Us	max	
in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz				average coil consumption at 20°C
in-rush VA holding VA of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz				of 50/60Hz coil powered at 50Hz
of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA holding VA	160230	VA	in-rush	·
of 50/60Hz coil powered at 60Hz in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA	1.53.0			
in-rush VA holding VA of 60Hz coil powered at 60Hz in-rush VA				of 50/60Hz coil powered at 60Hz
of 60Hz coil powered at 60Hz in-rush VA	160230	\/Δ	in-ruch	5. 55/66/12 66/1 portored at 66/12
of 60Hz coil powered at 60Hz in-rush VA				
in-rush VA	1.53.0	VA	nolaling	of COLIT and noward at COLIT
	400 000	\ / A		or bunz coil powered at bunz
	160230			
holding VA Dissipation at holding ≤20°C 50Hz W	1.53.0 1.53.0		holding	



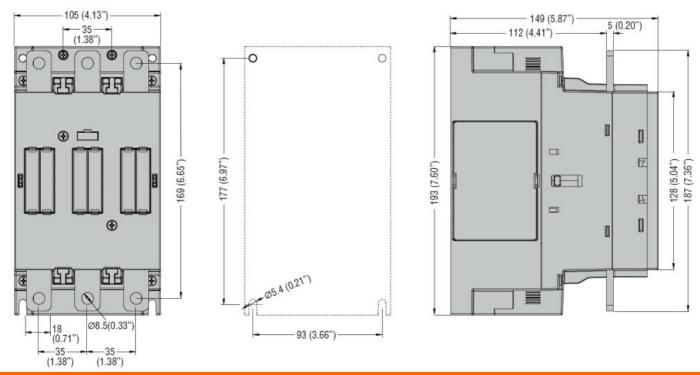
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DC soil an arctica					
DC coil operating	10				
DC rated control voltage	J C			W	60
			min	V V	60 130
DC operating voltage			max	V	130
Do operating voitage	pick-up				
	Prote up		min	%Us	85 Us min
			max	%Us	110 Us max
	drop-out		THOX	7000	110 Co max
	>p		max	%Us	≤70 Us min
Average coil consumpt	tion ≤20°C			-	-
<u> </u>			in-rush	W	160230
			holding	W	1.53.0
Max cycles frequency					
Mechanical operation				cycles/h	1000
Operating times					
Average time for Us co					
	in AC				
		Closing NO			
			min	ms	50
			max	ms	100
		Opening NO			
			min	ms	30
III toobaical data			max	ms	75
UL technical data	uf a was a la a a				
Yielded mechanical pe		otor			
	for three-phase AC mo	סוטו	200/208V	HP	75
			200/208V 220/230V	HP	75 75
			460/480V	HP	150
			575/600V	HP	200
General USE			2.0,000	* **	
	Contactor				
			AC current	Α	350
Short-circuit protection	fuse, 600V				
•	High fault				
	-		Short circuit current	kA	100
			Fuse rating	Α	400
			Fuse class		J
	Standard fault				
			Short circuit current	kA	10
			Fuse rating	Α	400
A 11			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature	•		°C	40
			min	°C	-40 70
	Ctoroge town		max	°C	70
	Storage temperature		مناجيس	°C	50
			min	°C	-50 80
Max altitude			max	m	3000
Resistance & Protection	nn			111	3000
Pollution degree	лг————————————————————————————————————				3
- onduon degree					<u> </u>

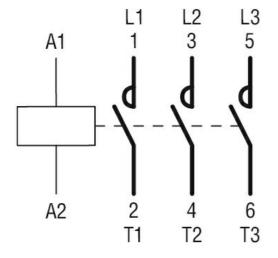
ENERGY AND AUTOMATION

3-POLIGES SCHÜTZ, IEC BETRIEBSSTROM LE (AC3) = 230A, AC/DC-SPULE, 60... 130VAC/DC

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

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching