



Product type designation BFK80 Contact characteristics Number of poles nr. 3 Rated insulation voltage U iIFC/EN V 690 Rated impulse withstand voltage U Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-4 (4000) A 38 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-4 (4000) A 80 Rated operational power AC-6b (T≤40°C) AC-60 (EC/40°C) AC-6				
Product type designation BFK80 Contact characteristics Number of poles nr. 3 Rated insulation voltage U iIFC/EN V 690 Rated impulse withstand voltage U Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-4 (4000) A 38 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-3 (s4400 v ≤55°C) A 80 Rated operational power AC-6b (T≤40°C) AC-4 (4000) A 80 Rated operational power AC-6b (T≤40°C) AC-60 (EC/40°C) AC-6	Product designation			Power contactor
Contact characteristics Number of poles nr. 3 3 Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-3 (≤4400 ∨ ≤5°°C) A 80 Rated operational power AC-6b (T≤40°C) 230 ∨ kvar 30 400 ∨ kvar 50 Rated operational power AC-6b (T≤40°C) 230 ∨ kvar 30 400 ∨ kvar 50 Short-time allowable current for 10s (IEC/EN60947-1) A 65 50 Short-time allowable current for 10s (IEC/EN60947-1) A 640 65 Short-time allowable current for 10s (IEC/EN60947-1) A 640 65 Short-time allowable current for 10s (IEC/EN60947-1) A 640 65 Short-time allowable current for 10s (IEC/EN60947-1) A 640 65 Short-time allowable current for 10s (IEC/EN60947-1) A 60 60				BFK80
Rated insulation voltage U IEC/EN V 690 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-6b (T≤40°C) 230V kvar 50 400V kvar 50 500V kvar 56 500V kvar 56 690V kvar 56 690V kvar 56 50 50 690V kvar 56 50 50 690V kvar 56 50 690V kvar 56 50 69 40 65 50 69 80 80 65 50 69 80 80 60 80 80 60 80 80 80 80 80 80 80 80 <td>Contact characteristics</td> <td></td> <td></td> <td></td>	Contact characteristics			
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-6b (T≤40°C) 230V kvar 30 400V kvar 50 500V kvar 56 690V kvar 56 690V kvar 55 Short-time allowable current for 10s (IEC/EN60947-1) A 640 69 kvar 55 Short-time allowable current for 10s (IEC/EN60947-1) A 640 69 kvar 55 Short-time allowable current for 10s (IEC/EN60947-1) A 640 69 A 640 Protection fuse gG (IEC) A 125 A 80 Making capacity (RMS value) A 80 A	Number of poles		nr.	3
Rated impulse withstand voltage Uimp kV 8 Operational frequency min min Hz max Hz min Hz max Hz min H	•		V	
Operational frequency min max Hz max Hz max Hz max Hz Hz max Hz min Hz max Hz max Hz max Hz max Hz min Hz max Hz max Hz max Hz max Hz min Hz min Hz min Hz min Hz max Hz max Hz min Hz max Hz min Hz mi				
Min				
Max Ma	operational inequency	min	Hz	25
IEC Conventional free air thermal current lth				
Operational current le AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational power AC-6b (T≤40°C) 230V kvar 30 400V kvar 56 500V kvar 56 690V kvar 65 Short-time allowable current for 10s (IEC/EN60947-1) A 640 Protection fuse gG (IEC) A 125 aM (IEC) A 80 Making capacity (RMS value) Breaking capacity at voltage 440V A 640 500V A 625 690V A 456 Resistance per pole (average value) M 0.6 0.6 Power dissipation per pole (average value) Ith W 7.9 AC3 W 3.8 0.6 Tightening torque for terminals min Nm 4 max Nm 5 0.8 max Ibit 0.74	IEC Conventional free air thermal current Ith	IIIax		
AC-3 (≤440V ≤55°C)			A	113
AC-4 (400V)	Operational current le	A C 2 (4 4 0) / 4 5 5 ° C)	^	0.0
Rated operational power AC-6b (T≤40°C) 230V kvar 30 400V kvar 50 500V kvar 56 690V kvar 56 690V kvar 65 Short-time allowable current for 10s (IEC/EN60947-1) A 640 Protection fuse gG (IEC) A 125 aM (IEC) A 80 Making capacity (RMS value) A 800 Breaking capacity at voltage 440V A 640 500V A 625 690V A 456 Resistance per pole (average value) mΩ 0.6 Power dissipation per pole (average value) lth W 7.9 AC3 W 3.8 Tightening torque for terminals min Nm 4 max Nm 5 min Ibin 2.95 min Ibin 2.95 min Ibin 2.95 max Ibin 3.69 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibif 0.8 max Nm 1 min Ibif 0.8 max Ibif 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section		,		
230V kvar 30 400V kvar 50 500V kvar 56 690V kvar 65 690V 60 60 60 60 60 60 60		AC-4 (400V)	A	38
A 00V kvar 50 500V kvar 56 690V kvar 56 690V kvar 56 690V kvar 56 690V kvar 65 690V A 640	Rated operational power AC-6b (1≤40°C)			
Sont-time allowable current for 10s (IEC/EN60947-1)			kvar	
Short-time allowable current for 10s (IEC/EN60947-1)			kvar	
Short-time allowable current for 10s (IEC/EN60947-1)		500V	kvar	56
Protection fuse gG (IEC)		690V	kvar	65
GG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Making capacity (RMS value)	Protection fuse			
Making capacity (RMS value)		gG (IEC)	Α	125
Breaking capacity at voltage		aM (IEC)	Α	80
Breaking capacity at voltage	Making capacity (RMS value)	,	Α	800
440V				
Soov A 625 690V A 456		440V	Α	640
Resistance per pole (average value) mΩ 0.6				
Resistance per pole (average value) mΩ 0.6				
Power dissipation per pole (average value) Ith W 7.9 AC3 W 3.8 Tightening torque for terminals min Nm 4 max Nm 5 min Ibin 2.95 max Ibin 3.69 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibft 0.8 max Ibft 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section	Resistance per pole (average value)			
Ith W 7.9 AC3 W 3.8			22	0.0
AC3 W 3.8	Tower dissipation per pole (average value)	Ith	۱۸/	7.0
Tightening torque for terminals				
min Nm 4 max Nm 5 min Ibin 2.95 max Ibin 3.69	Tightoning torque for terminals	A03	V V	3.0
max Nm 5 min Ibin 2.95 max Ibin 3.69	rightening torque for terminals		Nima	4
min				
max lbin 3.69 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min lbft 0.8 max lbft 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section				
Tightening torque for coil terminal min Nm 0.8 max Nm 1 min lbft 0.8 max lbft 0.74 Max number of wires simultaneously connectable Conductor section Flexible w/o lug conductor section				
min Nm 0.8 max Nm 1 min lbft 0.8 max lbft 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section		max	IDIN	3.69
max Nm 1 min lbft 0.8 max lbft 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section	lightening torque for coil terminal	_		
min lbft 0.8 max lbft 0.74 Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section				
Max number of wires simultaneously connectablemaxlbft0.74Conductor sectionnr.2Flexible w/o lug conductor section				
Max number of wires simultaneously connectable nr. 2 Conductor section Flexible w/o lug conductor section		min		
Conductor section Flexible w/o lug conductor section		max	lbft	
Flexible w/o lug conductor section	Max number of wires simultaneously connectable		nr.	2
· · · · · · · · · · · · · · · · · · ·	Conductor section			
$min mm^2 15$	Flexible w/o lug conductor section			
1.3		min	mm²	1.5



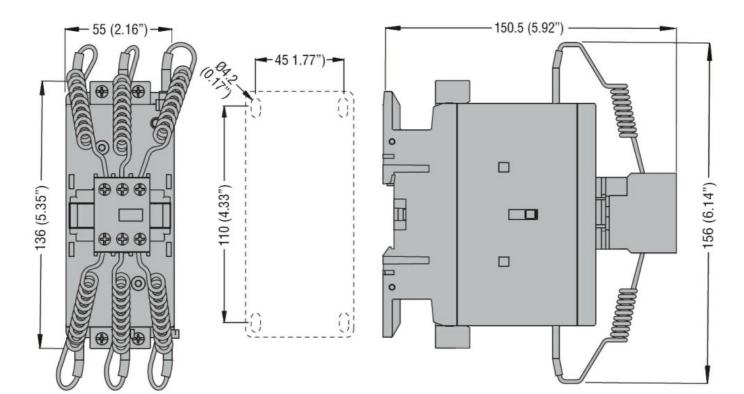
ENERGY AND AUTOMATION

	max	mm²	35
Flexible c/w lug conductor section			
	min	mm²	1.5
D	max	mm²	35
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features Operating position			
Operating position	normal		vertical plan
	allowable		±30°
Fixing.	<u> </u>		Screw / DIN rail
Fixing			35mm
Weight		g	1090
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load	ovolco	400000
	rated load mechanical load	cycles cycles	400000 15000000
Mirror contats according to IEC/EN 609474-4-1	mechanical load	Cycles	true
EMC compatibility			yes
AC coil operating			,,,,
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	12
	max	V	600
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up		0/11	
duan aut	max	%Us	110
drop-out	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz	тах	7000	
pick-up			
	min	%Us	85
	max	%Us	110
drop-out			
	min	%Us	20
10 11 10000	max	%Us	55
AC operating voltage at 20°C			
of 50/60Hz coil powered at 50Hz	in-rush	VA	210
	holding	VA VA	15
of 50/60Hz coil powered at 60Hz	riolality	٧٨	10
5. 55, 55. 12 5011 portorou at 551 12	in-rush	VA	195
	holding	VA	13
of 60Hz coil powered at 60Hz	<u> </u>		_
	in-rush	VA	210
	holding	VA	15
Dissipation at holding ≤20°C 50Hz		W	5
Max cycles frequency			
Mechanical operations		cycles/h	3600
Operating times			
Average time for Us control			



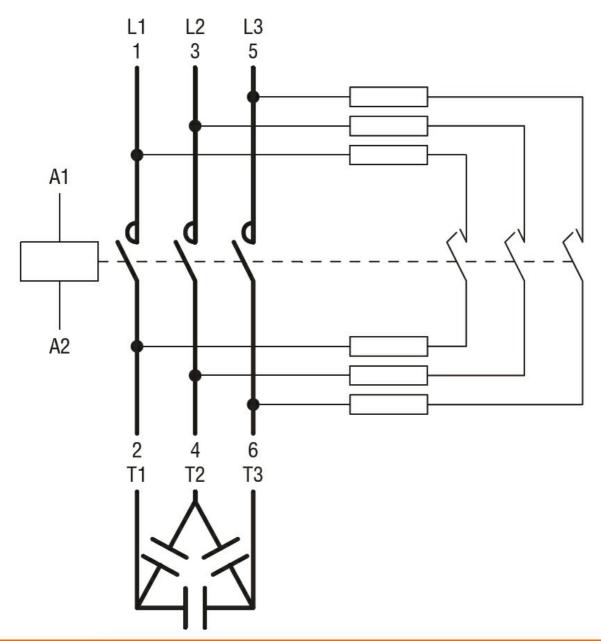
	in AC	aa			
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
			min	ms	40
			max	ms	85
		Opening NO			
			min	ms	20
			max	ms	55
UL technical data					
Full-load current (FLA) for three-phase AC	C motor			
			at 480V	Α	77
			at 600V	Α	77
Yielded mechanical po	erformance				
	for three-phase A	C motor			
			200/208V	hp	25
			220/230V	hp	30
			460/480V	hp	60
			575/600V	hp	75
Contact rating of auxil	iary contacts accord	ing to UL			SI - A600
General USE	-	-			
	Auxiliary contacts				
	,		AC voltage	V	600
			AC current	Α	10
			DC voltage	V	250
			DC current	Α	1
Ambient conditions					
Temperature					
	Operating temper	rature			
	operating temper	a.a.o	min	°C	-50
			max	°C	70
	Storage temperat	ture	max		. •
	Storago tomporat		min	°C	-60
			max	°C	80
Max altitude			IIIdx	 	3000
Resistance & Protecti	on			111	3000
Pollution degree	OII-				3
Dimonsions					J

Dimensions



Wiring diagrams





Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching