



Product designation Power contactor Product type designation **BF40** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k۷ Rated impulse withstand voltage Uimp 8 Operational frequency min Н 25 max Hz 400 IEC Conventional free air thermal current Ith 70 Α Operational current le AC-1 (≤40°C) Α 70 AC-1 (≤55°C) Α 60 AC-1 (≤70°C) 50 Α AC-3 (≤440V ≤55°C) Α 40 AC-4 (400V) 24 Rated operational power AC-3 (T≤55°C) kW 11 230V 400V kW 18.5 415V kW 22 440V kW 22 500V kW 22 690V kW 30 1000V kW 18.5 Rated operational current AC-3 (T≤55°C) 230V Α 40 400V Α 40 415V 40 Α 440V 40 Α 500V 33 690V Α 32 1000V Α 21 Rated operational power AC-1 (T≤40°C) 230V kW 26 400V kW 46 500V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 40 48V Α 35 75V Α 30 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 48



	48V	Α	48
	75V	Α	45
	110V	Α	42
	220V	A	5
IFC many augment to in DC4 with 1/D < 4 may with 2 males in series	220 V	Α	3
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	40 AV /		40
	≤24V	Α	48
	48V	Α	48
	75V	Α	48
	110V	Α	44
	220V	Α	56
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	A	70
150	2201	A	70
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		_	
	≤24V	Α	27
	48V	Α	23
	75V	Α	19
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	32
	48V	A	30
	75V		
		A	27
	110V	Α	22
-	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	40
	48V	Α	40
	75V	Α	38
	110V	Α	27
	220V	Α	32
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
120 max danoncio in 200 200 mai 2/10 - 10me mai i poleci il conce	≤24V	Α	_
	≥24 V 48 V	A	-
			_
	75V	Α	_
	110V	Α	_
	220V	Α	40
Short-time allowable current for 10s (IEC/EN60947-1)		Α	400
Protection fuse			
	gG (IEC)	Α	100
	aM (IEC)	Α	50
Making capacity (RMS value)	` '	Α	400
Breaking capacity at voltage			
g sapaon, at ronage	440V	Α	320
	500V		265
		A	
Desire to the second of the se	690V	Α	256
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	3.9
	AC-3	W	1.3
Tightening torque for terminals			



		min	Nm	4
		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
	The state of the s	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	Пах		-
	S G. H. lag contactor coolion	min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529	max		IP20 front
Mechanical features				11 20 110111
Operating position				
Operating position		normal		Vertical plan
		allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight				1060
			g	1000
Conductor section	ANAC (kamil acade ator acation			
Conductor section	AWG/kcmil conductor section			0
	AWG/kcmil conductor section	max		2
Operations	AWG/kcmil conductor section	max		
Operations Mechanical life	AWG/kcmil conductor section	max	cycles	15000000
Operations Mechanical life Electrical life	AWG/kcmil conductor section	max	cycles cycles	
Operations Mechanical life Electrical life Safety related data		max		15000000
Operations Mechanical life Electrical life Safety related data	AWG/kcmil conductor section Od according to EN/ISO 13489-1		cycles	15000000 1500000
Operations Mechanical life Electrical life Safety related data		rated load	cycles	1500000 1500000 1500000
Operations Mechanical life Electrical life Safety related data Performance level B1	0d according to EN/ISO 13489-1		cycles	1500000 1500000 1500000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi		rated load	cycles	1500000 1500000 1500000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility	0d according to EN/ISO 13489-1	rated load	cycles	1500000 1500000 1500000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles	1500000 1500000 1500000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load min	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load min	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load mechanical load min	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz, 60Hz of 50/60Hz coil powered at 50Hz	rated load mechanical load min	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz, 60Hz of 50/60Hz coil powered at 50Hz	rated load mechanical load min max	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes 20 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 O/60Hz, 60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load min max	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes 20 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 O/60Hz, 60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load min max	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes 20 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 O/60Hz, 60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	rated load mechanical load min max	cycles cycles cycles	1500000 1500000 1500000 15000000 yes yes 20 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	rated load mechanical load min max	cycles cycles cycles V V W Wus	1500000 1500000 1500000 15000000 yes yes 20 48
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	rated load mechanical load min max min max	cycles cycles cycles	15000000 1500000 1500000 15000000 yes yes 20 48 85 Us min ≤70 Us min



drop	-out
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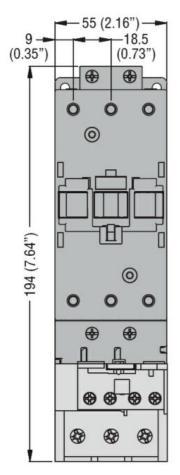
		drop-out			
			max	%Us	≤70 Us min
AC average coil consu	mption at 20°C				
-	of 50/60Hz coil	powered at 50Hz			
			in-rush	VA	35120
			holding	VA	1.53.7
	of 50/60Hz coil	powered at 60Hz	riolaling	V/ \	1.00.1
	01 30/00112 0011	powered at our iz	in much	١/٨	25 120
			in-rush	VA	35120
5	-0000 =011		holding	VA	1.53.7
Dissipation at holding s	≦20°C 50Hz			W	12.5
DC coil operating					
DC rated control voltage	je				
			min	V	20
			max	V	48
DC operating voltage					
2 c operaning remage	pick-up				
	pion up		min	%Us	80 Us min
			max	%Us	110 Us max
	drop-out				
			max	%Us	≤70 Us min
Average coil consumpt	tion ≤20°C				
			in-rush	W	2368
			holding	W	1.21,9
Max cycles frequency			<u> </u>		,
Mechanical operation				cycles/h	1500
Operating times				Oyolco/11	1000
	ntrol				
Average time for Us co					
	in AC	01 1 110			
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
	in DC				
	-	Closing NO			
		0.30119 110	min	ms	40
					85
		Opening NO	max	ms	UJ
		Opening NO			00
			min	ms	20
			max	ms	55
UL technical data					
Full-load current (FLA)	for three-phase	AC motor			
			at 480V	Α	40
			at 600V	Α	32
Yielded mechanical pe	rformance			<u> </u>	
	for single-phase	e AC motor			
	ioi sirigie-priasi	C AO IIIOIOI	110/120V	ПD	2
				HP	3
			230V	HP	7.5
	for three-phase	AC motor			
			200/208V	HP	10
			220/230V	HP	15
			460/480V	HP	30
			575/600V	HP	30

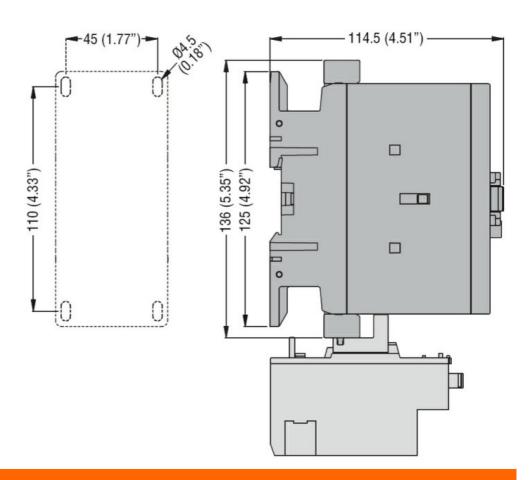




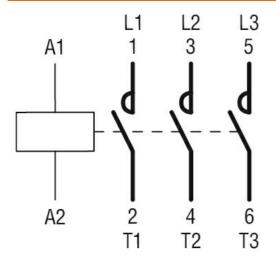
Operating temperature	General USE				
Auxiliary contacts AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current KA 100 Fuse rating A 150 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 150 Fuse class S 1 Standard fault Short circuit current KA 5 Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Min °C -40 max °C 70 Storage temperature Min °C -50 max °C 80 Max altitude Pollution degree 3		Contactor			
AC voltage V 600 AC current A 10 DC voltage V 250 DC current A 1 DC voltage V 250 DC current A 1 Short-circuit protection fuse, 600V High fault Short circuit current Fuse rating A 150 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 150 Fuse rating A 150 Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Femperature Operating temperature Operating temperature Min °C -40 max °C 70 Storage temperature min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree Figure 1 A 100 An 150 Fuse class J Short circuit current KA 5 Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL An 5 Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL An 150 Fuse class C 80 Max altitude B 3000 Resistance & Protection			AC current	Α	70
AC current A 10 DC voltage V 250 DC current A 1 Nont-circuit protection fuse, 600V High fault Short-circuit current KA 100 Fuse rating A 150 Fuse class J		Auxiliary contacts			
DC voltage			AC voltage	V	600
DC current A 1					
Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 150 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 150 Fuse rating A 150 Fuse rating A 150 Fuse rating A 150 Fuse class RK5			_	V	250
High fault			DC current	Α	1
Short circuit current KA 100 Fuse rating A 150 Fuse class J	Short-circuit protection	on fuse, 600V			
Fuse rating		High fault			
Fuse class J			Short circuit current	kA	100
Standard fault Short circuit current kA 5 Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL SI - A600 Ambient conditions Temperature Operating temperature min °C -40 max °C 70 Storage temperature min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree Short circuit current kA 5 Fuse rating A 150 Fuse class RK5 RK5 RK5 O			•	Α	150
Short circuit current Fuse rating A 150 Fuse class RK5 Contact rating of auxiliary contacts according to UL SI - A600 Ambient conditions Temperature Operating temperature Min °C -40 max °C 70 Storage temperature min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection			Fuse class		J
Fuse rating		Standard fault			
Fuse class RK5			Short circuit current	kA	5
Contact rating of auxiliary contacts according to UL			Fuse rating	Α	150
Ambient conditions Care			Fuse class		
Operating temperature		iliary contacts according to UL			SI - A600
Operating temperature min °C -40 max °C 70 Storage temperature min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection 3	Ambient conditions				
min °C -40 max °C 70	Temperature				
max °C 70		Operating temperature			
Storage temperature min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection 3			min		-40
min °C -50 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3			max	°C	70
Max altitude m 3000 Resistance & Protection Pollution degree 3		Storage temperature			
Max altitude m 3000 Resistance & Protection Pollution degree 3			min		-50
Resistance & Protection Pollution degree 3			max	°C	80
Pollution degree 3	Max altitude			m	3000
<u> </u>	Resistance & Protect	tion			
Dimensions	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





ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching