



			10 10 10
Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		_	
	≤24V	Α	50
	48V	A	50
	75V	A	50
	110V	A	8
IFC many automorphile in DC4 with L/D < 4 may with 2 males in against	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<0.417	۸	70
	≤24V 48V	A	70 70
	48 V 75 V	A A	70 70
	110V		
	220V	A A	60 9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2200	^	<u> </u>
TEO MAX current le in DOT with E/N > This with 3 poles in selles	≤24V	Α	70
	≤24V 48V	A	70 70
	46 V 75 V	A	70 70
	150	^	70



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	Α	25
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	30
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	Α	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)		Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
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



Max number of wires simultaneously connectable Conductor section AWG/Kcmil Flexible w/o lug conductor section Flexible c/w lug conductor section	min max max min max	Ibin Ibin Nr. mm²	0.8 0.74 2
Conductor section AWG/Kcmil Flexible w/o lug conductor section	max min	Nr.	2
Conductor section AWG/Kcmil Flexible w/o lug conductor section	min		
AWG/Kcmil Flexible w/o lug conductor section	min	mm²	2
Flexible w/o lug conductor section	min	mm²	2
	min	mm²	
		mm²	
Flexible c/w lug conductor section		111111	1.5
Flexible c/w lug conductor section	IIIax	mm²	35
r lexible 6/W lug conductor section		111111	33
	min	mm²	1.5
	max	mm²	35
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1020
Conductor section			
AWG/kcmil conductor section			
	max		2
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1400000
N'	mechanical load	cycles	15000000
Mirror contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating		V	24
Rated AC voltage at 50/60Hz AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up			
P101. 4P	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz			
•			
pick-up		%Us	85
•	min		110
pick-up	min max	%Us	110
•	max		
pick-up	max min	%Us	40
pick-up drop-out	max		
pick-up drop-out AC average coil consumption at 20°C	max min	%Us	40
pick-up drop-out	max min max	%Us %Us	40 55
pick-up drop-out AC average coil consumption at 20°C	max min	%Us	40



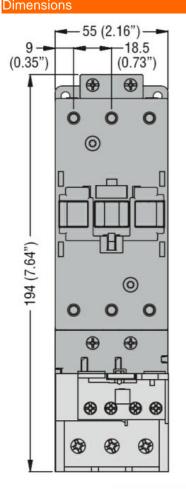


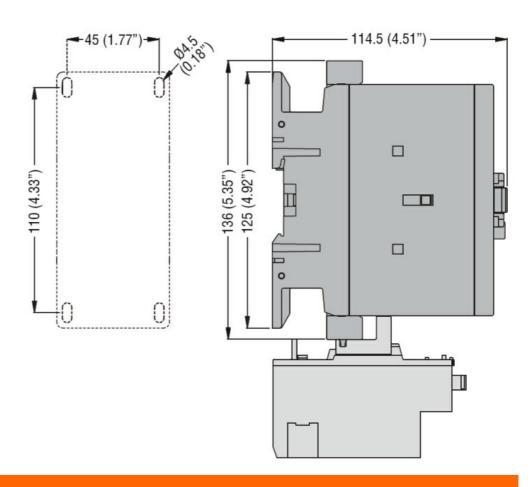
	of 50/60Hz coil powe	red at 60Hz			
	or 50/00112 con powe	ieu at ooriz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	Lat 60Hz	Holding	V/\	10
	or ouriz con powered	1 at 00HZ	in-rush	VA	210
			holding	VA VA	15
Dissipation at holding	<20°C E0∐-		Holding	W	5
	≥20 C 30HZ			VV	5
Max cycles frequency				ovelee/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Olasia a NO			
		Closing NO			40
			min	ms	12
			max	ms	28
		Opening NO			0
			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 me	otor			
			at 480V	Α	65
-			at 600V	Α	62
Yielded mechanical pe	erformance				
	for three-phase AC n	notor			
			200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE					
	Contactor				
			AC current	Α	100
Short-circuit protection	fuse, 600V				
•	High fault				
	J		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	3.6		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 450 01455		
Temperature					
romporaturo	Operating temperature	rΔ			
	Operating temperatur	16	min	°C	-50
			min	°C	-50 70
	Storage temperature		max	U	10
	Storage temperature			°C	-60
			min		-00

ENERGY AND AUTOMATION

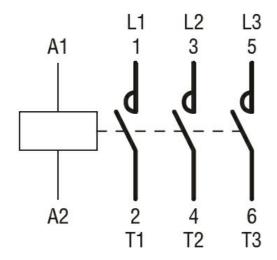
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 24VAC

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
FTIM classification	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





			10 10 10
Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		_	
	≤24V	Α	50
	48V	A	50
	75V	A	50
	110V	A	8
IFC many automorphile in DC4 with L/D < 4 may with 2 males in against	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<0.417	۸	70
	≤24V 48V	A	70 70
	48 V 75 V	A A	70 70
	110V		
	220V	A A	60 9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2200	^	<u> </u>
TEO MAX current le in DOT with E/N > This with 3 poles in selles	≤24V	Α	70
	≤24V 48V	A	70 70
	46 V 75 V	A	70 70
	150	^	70



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	Α	25
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	30
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	Α	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	A	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse	a (1= a)	_	
	gG (IEC)	Α	125
	aM (IEC)	A	80
Making capacity (RMS value)		Α	650
Breaking capacity at voltage	4.63.1		500
	440V	A	520
	500V	A	425
Decistance and the leaves of the last	690V	Α Ο	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	1.,,	147	0
	Ith	W	8
Timble with a feature for to make the	AC3	W	3.4
Tightening torque for terminals			4
	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
Timbioning tours of an anil tours in a	max	Ibin	3.69
Tightening torque for coil terminal		N.1.	0.0
	min	Nm	0.8
	max	Nm	1



min	Ibin	0.8
max	Ibin	0.74
	Nr.	2
		0
max		2
min	mm²	1.5
		35
IIIax	111111	33
min	mm²	1.5
		35
- max		IP20 front
		II Zo IIOIR
normal		Vertical plan
allowable		±30°
3		Screw / DIN rail
		35mm
	g	1020
max		2
	cycles	15000000
	cycles	1400000
	cycles	1400000
mechanical load	cycles	15000000
		yes
		yes
	V	48
	0/11	
		80
max	%Us	110
min	0/116	20
		20 55
IIIdX	70US	55
min	% le	85
		110
IIIdX	/003	110
min	%Us	40
111111		
may	%l Js	00
max	%Us	55
max	%Us	55
in-rush holding	WUs VA VA	210 15
	max min max min max min max	max min mm² max mm² min mm² max mm² min mm² max mm² normal allowable g max cycles cycles cycles cycles rated load cycles cycles cycles rated load cycles cycles mechanical load cycles cycles rated load cycles cycles cycles min %Us max %Us min %Us min %Us max %Us



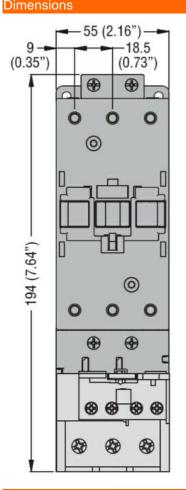


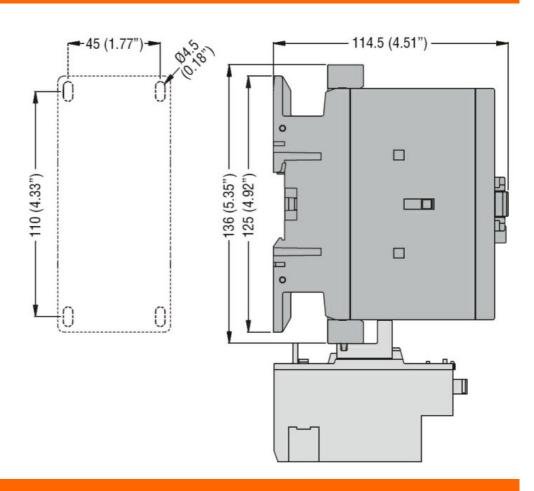
	of 50/60Hz coil powe	red at 60Hz			
	or 50/00112 con powe	ieu at ooriz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	Lat 60Hz	Holding	V/\	10
	or ouriz con powered	1 at 00HZ	in-rush	VA	210
			holding	VA VA	15
Dissipation at holding	<20°C E0∐-		Holding	W	5
	≥20 C 30HZ			VV	5
Max cycles frequency				ovelee/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Olasia a NO			
		Closing NO			40
			min	ms	12
			max	ms	28
		Opening NO			0
			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 me	otor			
			at 480V	Α	65
-			at 600V	Α	62
Yielded mechanical pe	erformance				
	for three-phase AC n	notor			
			200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE					
	Contactor				
			AC current	Α	100
Short-circuit protection	fuse, 600V				
•	High fault				
	J		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	3.6		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 450 01455		
Temperature					
romporaturo	Operating temperature	rΔ			
	Operating temperatur	16	min	°C	-50
			min	°C	-50 70
	Storage temperature		max	U	10
	Storage temperature			°C	-60
			min		-00

ENERGY AND AUTOMATION

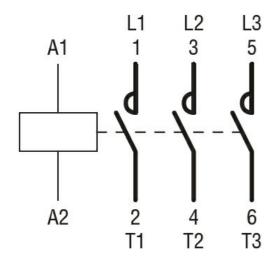
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Disconsises			





Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
FTIM classification	

ETIM 8.0

EC000066 -Power contactor, AC switching





			10 10 10
Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		_	
	≤24V	Α	50
	48V	A	50
	75V	A	50
	110V	A	8
IFC many automorphile in DC4 with L/D < 4 may with 2 males in against	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<0.417	۸	70
	≤24V 48V	A	70 70
	48 V 75 V	A A	70 70
	110V		
	220V	A A	60 9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2200	^	<u> </u>
TEO MAX current le in DOT with E/N > This with 3 poles in selles	≤24V	Α	70
	≤24V 48V	A	70 70
	46 V 75 V	A	70 70
	150	^	70





	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	A	70
150	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	<0.417	Δ.	0.5
	≤24V 48V	A	35
	46 V 75 V	A A	25 25
	110V	A	3
	220V	A	-
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V	^	_
TEC max current le in DO3-DO3 with E/TC = Toms with 2 poles in series	≤24V	Α	45
	≤24 V 48 V	A	40
	75V	A	40
	110V	A	30
	220V	A	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201		
TEO MAX GATTORIC IN 200 200 WAT EXTENT TO THOU WAT O POISSO IN GOING	≤24V	Α	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	Α	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
·	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)		Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			_
	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
Tinhtonia a tomora for coll tomora.	max	Ibin	3.69
Tightening torque for coil terminal			0.0
	min	Nm	0.8
	max	Nm	1



		min	lbin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			•
	Ele 3 le de la constante de constante de la co	max		2
	Flexible w/o lug conductor section		2	4.5
		min	mm²	1.5
	Flevible o/w lug conductor acction	max	mm²	35
	Flexible c/w lug conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protec	tion according to IEC/EN 60529	IIIdA	111111	IP20 front
Mechanical features	clion according to IEC/EIN 00329			IF 20 HOIR
Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		anowabic		Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats accordi	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 5	60/60Hz		V	110
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out	•	0/11-	00
		min	%Us	20
	of FO/COLLE acil reviewed at COLLE	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		min	%Us	110
	drop-out	max	/0US	110
	diop-out	min	%Us	40
		max	%Us	55
AC average coil consu	imption at 20°C	IIIdA	/003	
To average con const	of 50/60Hz coil powered at 50Hz			
	or our our iz con powered at our iz	in-rush	VA	210
		holding	VA	15
		Holding	٧/١	.0



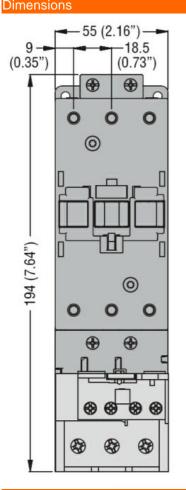


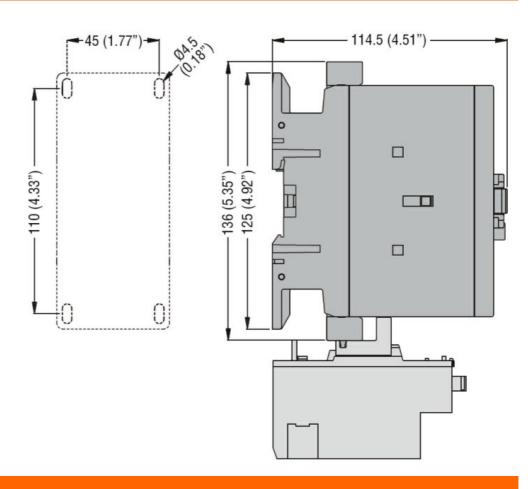
	of 50/60Hz coil powe	red at 60Hz			
	or 30/00112 con powe	iled at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	Lat 60Hz	notality	V /- \	
	or dornz con powered	1 at 00112	in-rush	VA	210
			holding	VA VA	15
Dissipation at holding	<20°C 50∐-z		riolaling	W	5
Max cycles frequency	≥20 C 30HZ			VV	5
				ovoloo/b	2600
Mechanical operation Operating times				cycles/h	3600
	ontrol				
Average time for Us co					
	in AC	Ola aire a NO			
		Closing NO	!		40
			min	ms	12
		On an in a NO	max	ms	28
		Opening NO			0
			min	ms	8
	:- DO		max	ms	22
	in DC	Ola altri MO			
		Closing NO			40
			min	ms	40
		On anin : NO	max	ms	85
		Opening NO			00
			min	ms	20
			max	ms	55
UL technical data	((
Full-load current (FLA)	for three-phase AC m	otor			0.5
			at 480V	A	65
-			at 600V	Α	62
Yielded mechanical pe					
	for three-phase AC n	notor			
			200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE					
	Contactor				
-			AC current	Α	100
Short-circuit protection					
	High fault				
			Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault				_
			Short circuit current	kA	10
			Fuse rating	Α	200
			Fuse class		RK5
Ambient conditions					
Temperature					_
	Operating temperatu	re			
			min	°C	-50
			max	°C	70
	Storage temperature				
	٠,		min	°C	-60

ENERGY AND AUTOMATION

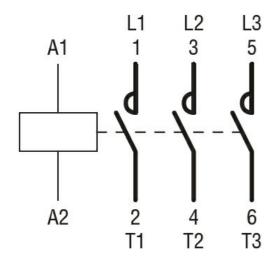
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Discount of the control of the contr			





Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ,

	IEC/EN/BS 60947-4-1	
	UL 60947-1	
	UL 60947-4-1	
Certificates		
	CCC	
	cULus	

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)	,		
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	50
	110V	Α	8
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70

	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	Α	25
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	30
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V	- , ,	
04.10.11.10 II. 5 00 5 00 Will E/1 = 10.110 Will 0 poloo III 001100	≤24V	Α	55
	48V	A	50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEC max current le in DO3-DO3 with L/K \(\) 13ms with 4 poles in series	≤24V	٨	60
		A	60
	48V	A	60
	75V	A	60
	110V	A	50
Object times allowed by suggest for 40% (IEO/ENICO047.4)	220V	A	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse	0 (150)		405
	gG (IEC)	A	125
	aM (IEC)	Α .	80
Making capacity (RMS value)		Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals		_	
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
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
Conductor section			_ _

Conductor section

Flexible w/o lug conductor section

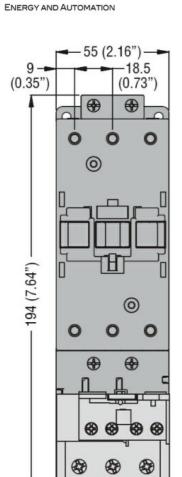


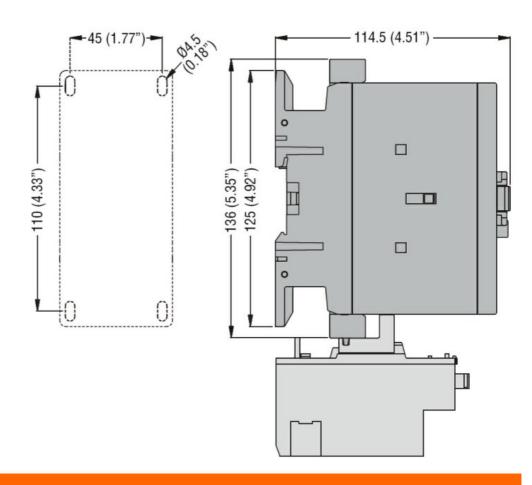
		min	mm²	1.5
		min max	mm²	35
	Texible c/w lug conductor section	Παλ	111111	
'	Texible 6/W lag conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protection	according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	1020
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10d	according to EN/ISO 13489-1			
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats according	to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/6	0Hz		V	230
AC operating voltage	(50/0011 "			
0	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		min	%Us	110
	drop-out	max	/005	110
	drop-out	min	%Us	20
		max	%Us	55
0	of 50/60Hz coil powered at 60Hz		,,,,,	
_	pick-up			
		min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	40
		max	%Us	55
AC average coil consump				_
0	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
_	(TO (OOL)	holding	VA	15
0	of 50/60Hz coil powered at 60Hz			405
		in-rush	VA	195
-	£ 001	holding	VA	13
0	of 60Hz coil powered at 60Hz	ا ـ	١/٨	210
		in-rush	VA VA	210 15
Dissipation at holding ≤20)°C 50Hz	holding	W	5
Max cycles frequency	O 001 IZ		V V	J
Mechanical operation			cycles/h	3600
Operating times			0y0103/11	
Average time for Us cont	rol			
	. 🗸			



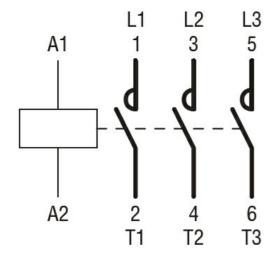


	in AC				
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
UL technical data					
Full-load current (FLA)	for three-phase AC mo	tor		_	
			at 480V	Α	65
			at 600V	Α	62
Yielded mechanical pe					
	for three-phase AC mo	otor	/		
			200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE					
	Contactor				
			AC current	Α	100
Short-circuit protection					
	High fault				
			Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault				
			Short circuit current	kA	10
			Fuse rating	Α	200
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature	9			
			min	°C	-50
			max	°C	70
	Storage temperature			0.7	
			min	°C	-60
			max	°C	80
Max altitude				m	3000
Resistance & Protection	on				
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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 230VAC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor
Product type designation BF65

Product type designation			БГОЭ
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	50
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<u> </u>		
•	≤24V	Α	70
	48V	Α	70
	75V	Α	70



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≥24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX CUITER REPOSEDOS WILL ETC 3 TOMS WILL 4 POIES IT SELIES	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)	-	Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	,	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1





		min	Ibin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	ANA/O/I/C'I			
	AWG/Kcmil			0
	Florible w/o lug conductor costion	max		2
	Flexible w/o lug conductor section	min	mm²	1.5
			mm²	35
	Flexible c/w lug conductor section	max	111111	30
	r lexible c/w lug corrudctor section	min	mm²	1.5
		max	mm²	35
Power terminal protect	ction according to IEC/EN 60529	тих		IP20 front
Mechanical features	Short decorating to 12-0/214 00020			11 20 110111
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
		anomablo		Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats accord	ing to IEC/EN 609474-4-1	mechanical load	cycles	15000000 yes
	ing to IEC/EN 609474-4-1	mechanical load	cycles	
Mirror contats accord EMC compatibility AC coil operating	ing to IEC/EN 609474-4-1	mechanical load	cycles	yes
EMC compatibility		mechanical load	cycles	yes
EMC compatibility AC coil operating		mechanical load		yes yes
EMC compatibility AC coil operating Rated AC voltage at 5		mechanical load		yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz	mechanical load		yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz	mechanical load	V %Us	yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up		V	yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 8	50/60Hz of 50/60Hz coil powered at 50Hz	min max	V %Us %Us	yes yes 400 80 110
EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up	min max min	V %Us %Us %Us	yes yes 400 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	min max	V %Us %Us	yes yes 400 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min	V %Us %Us %Us	yes yes 400 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	min max min max	V %Us %Us %Us %Us	yes yes 400 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min max min	V %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	min max min max	V %Us %Us %Us %Us	yes yes 400 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min max min max	V %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	min max min max min max min	V %Us %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55 85 110 40
EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	min max min max min max	V %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	min max min max min max min	V %Us %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55 85 110 40
EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	min max min max min max	V %Us %Us %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55 85 110 40 55
EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	min max min max min max min	V %Us %Us %Us %Us %Us %Us	yes yes 400 80 110 20 55 85 110 40



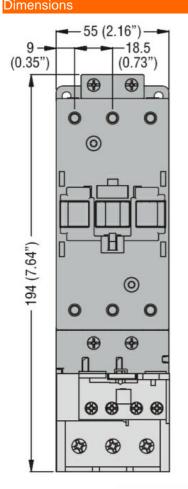


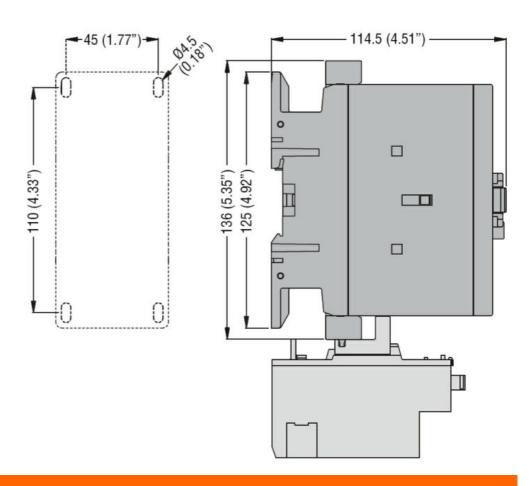
	of 50/60Hz coil powe	red at 60Hz			
	or 50/00112 con powe	ieu at ooriz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	Lat 60Hz	Holding	V/\	10
	or ouriz con powered	1 at 00HZ	in-rush	VA	210
			holding	VA VA	15
Dissipation at holding	<20°C E0∐-		Holding	W	5
	≤20 C 30HZ			VV	3
Max cycles frequency				ovelee/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Olasia a NO			
		Closing NO			40
			min	ms	12
			max	ms	28
		Opening NO			0
			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 me	otor			
			at 480V	Α	65
-			at 600V	Α	62
Yielded mechanical pe	erformance				
	for three-phase AC n	notor			
			200/208V	HP	20
			220/230V	HP	25
			460/480V	HP	50
			575/600V	HP	60
General USE					
	Contactor				
			AC current	Α	100
Short-circuit protection	fuse, 600V				
•	High fault				
	J		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	3.6		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 430 01433		
Temperature					
romporaturo	Operating temperature	rΔ			
	Operating temperatur	16	min	°C	-50
			min	°C	-50 70
	Storage temperature		max	U	10
	Storage temperature			°C	-60
			min		-00

ENERGY AND AUTOMATION

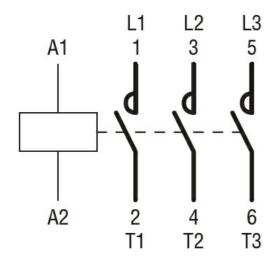
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 400VAC

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 50/60HZ, 400VAC

	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
ETIM classification	

ETIM classificatior

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
150 many symmetric in DOA with 1/D < 4 man with 4 males in series	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40 AV /		50
	≤24V	A	50
	48V	A	50 50
	75V 110V	A	50
	220V	A A	8
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V		
TEC max current le in DCT with E/N = mis with 2 poles in series	≤24V	Α	70
	48V	A	70 70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2201		<u> </u>
TEO MAX SAFFORCE III DOT WAT E/X = TITIS WILL O POICS III SELIES	≤24V	Α	70
	48V	A	70 70
	75V	A	70 70
	757	^	. 0



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≤24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX current le in 000-000 with E/N 3 Toms with 4 poles in series	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	()	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
-	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	lbin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Παλ		
	r lexible w/o lug corluctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Weight			~	1020
			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
	Od according to EN/ISO 13489-1			
	S .	rated load	cycles	1400000
		mechanical load	cycles	1500000
Mirror contate according	ng to IEC/EN 609474-4-1	Theorianical load	Cyclos	
	ig to IEC/EIN 009474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	0Hz		V	24
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
	•	min	%Us	80
		max	%Us	110
	drop-out		-	
	22p 2 2	min	%Us	20
		max	%Us	55
AC average coil consu	umption at 20°C	IIIAX	/003	
AC average coll corist				
	of 60Hz coil powered at 60Hz		١/٨	040
		in-rush	VA	210
		holding	VA	15
Dissipation at holding:	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
11.5.5.5.5	in AC			

BF6500A02460 The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

Closing NO

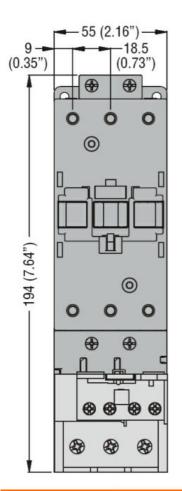
in AC

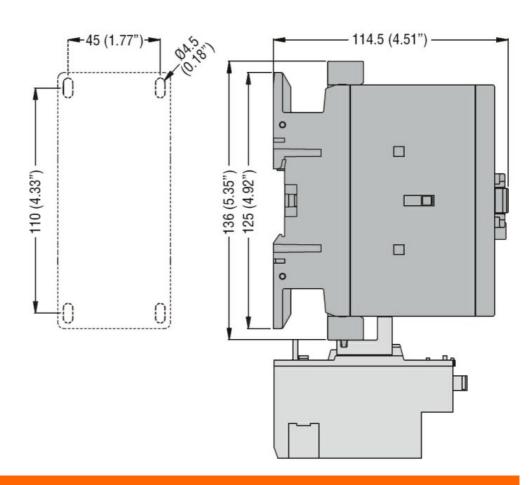




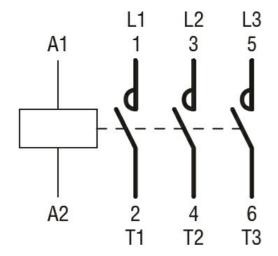
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO	min	 .	40
		min	ms	40 85
	Opening NO	max	ms	65
	Opening NO	min	ms	20
		max	ms	55
UL technical data				
	for three-phase AC motor			
, ,	·	at 480V	Α	65
		at 600V	Α	62
Yielded mechanical per	formance			
	for three-phase AC motor			
		200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
Ol and all and the other first	(AC current	Α	100
Short-circuit protection				
	High fault	Chart aircuit aurrant	IzΛ	100
		Short circuit current	kA A	100 200
		Fuse rating Fuse class	А	200 J
	Standard fault	1 USC 01855		
	Standard radit	Short circuit current	kA	10
		Fuse rating	A	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature		_	
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protectio	n en			
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



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



ENERGY AND AUTOMATION



			10
Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
·	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	50
	48V	A	50
	75V	A	50
	110V	A	8
IFC many augment is in DC4 with L/D < 4 man with 0 males in acrise	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<0.417	۸	70
	≤24V 48V	A	70 70
	75V	A A	70 70
	75V 110V	A	60
	220V	A	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2200	^	3
TEO MAX CUITCH IE IN DOT WILL LIN > THIS WILL S POICS III SCHES	≤24V	Α	70
	≤24∨ 48V	A	70 70
	75V	A	70 70
	730	^	7.0



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≥24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX CUITER REPOSEDOS WILL ETC 3 TOMS WILL 4 POIES IT SELIES	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)	-	Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	,	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/// G///Gillin	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug conductor section		2	4.5
		min	mm²	1.5
	- 	max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
-		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
-		anovabio		Screw / DIN rail
Fixing				35mm
Woight			α	1020
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
	Od according to EN/ISO 13489-1			
	3	rated load	cycles	1400000
		mechanical load	cycles	1500000
Mirror contate according	ng to IEC/EN 609474-4-1	THEOHAITICAL IOAU	Сусісз	
	ig to IEC/EIN 009474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	0Hz		V	48
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			-
	a.op	min	%Us	20
		max	%Us	55
AC average sell core:	umption at 20°C	IIIdX	/003	55
AC average coil consu				
	of 60Hz coil powered at 60Hz			0.1.0
		in-rush	VA	210
		holding	VA	15
Dissipation at holding:	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
, Jiago anto tot 03 00	in AC			

in AC

Closing NO

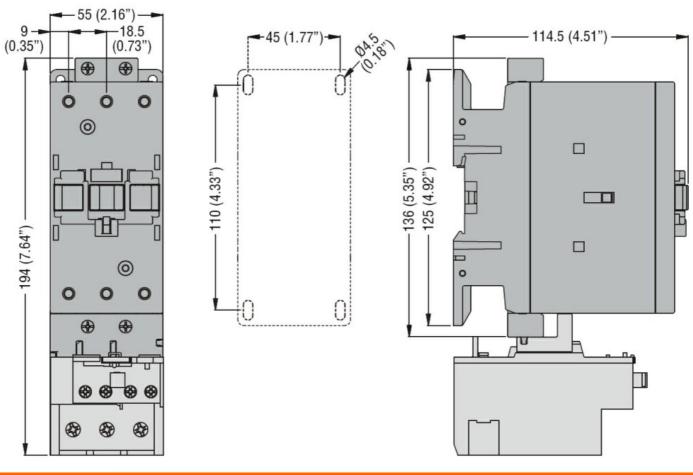




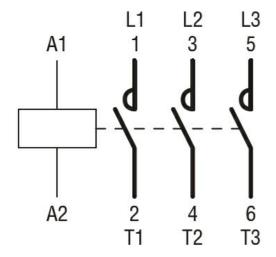
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	65
		at 600V	Α	62
Yielded mechanical pe	erformance		_	
	for three-phase AC motor			
		200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
		AC current	Α	100
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				



ENERGY AND AUTOMATION



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



BF6500A04860

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			_
	≤24V	Α	50
	48V	Α	50
	75V	Α	50
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≥24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX CUITER REPOSEDOS WILL ETC 3 TOMS WILL 4 POIES IT SELIES	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)	-	Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	,	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	max		
	r lexible w/o lug corluctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section		•	
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
, . .		normal		Vertical plan
		allowable		±30°
		anomabio		Screw / DIN rail
Fixing				35mm
Weight			<u> </u>	1020
Conductor section			g	1020
Conductor section	ANA/O/learnillands Indianas i			
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	· ·	rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats according	ng to IEC/EN 609474-4-1		-,	yes
EMC compatibility	19 10 12 07 21 4 000 17 1 1 1			
AC coil operating				yes
	01.1-		\ /	400
Rated AC voltage at 60	J□2		V	120
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 consu	Imption at 20°C			
	of 60Hz coil powered at 60Hz			
	5. 55. 12 56.1 powered at 56.12	in-rush	VA	210
		holding	VA VA	15
Dissipation at I-1-1:	<20°C F0LI -	noiuing		
Dissipation at holding:	≥∠U ∪ ƏUHZ		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
	in AC			

Closing NO

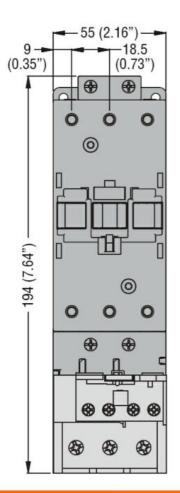
in AC

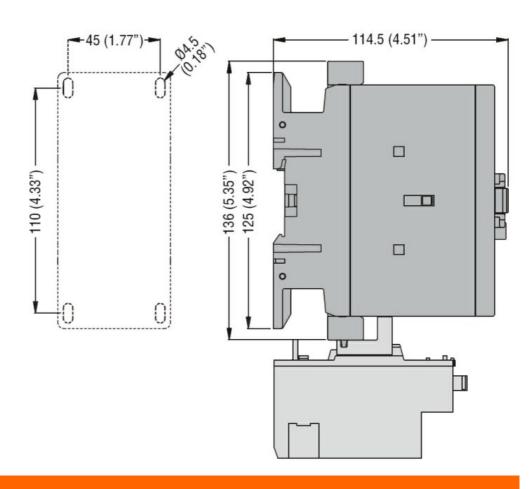




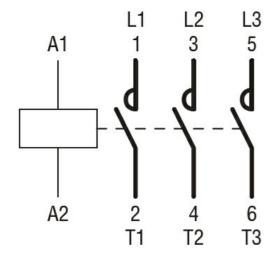
		_		
		min	ms	12
	0 : 110	max	ms	28
	Opening NO			0
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	65
	Opening NO	min	ms	20
		max	ms	55
UL technical data		IIIAX	1113	33
	for three-phase AC motor			
T dil load carrett (i EA)	Tot three phase Ao motor	at 480V	Α	65
		at 600V	A	62
Yielded mechanical pe	rformance	αι σου ν		<u> </u>
riolada modilamdal pe	for three-phase AC motor			
	Tot till co pridoc / to motor	200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
		AC current	Α	100
Short-circuit protection	fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
	0	max	°C	70
	Storage temperature		0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude	2		m	3000
Resistance & Protectio	II			3
Pollution degree				J
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



BF6500A12060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF65** Contact characteristics Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Η 25 max Hz 400 IEC Conventional free air thermal current Ith 100 Α Operational current le AC-1 (≤40°C) Α 100 AC-1 (≤55°C) Α 80 AC-1 (≤70°C) 70 Α AC-3 (≤440V ≤55°C) Α 65 AC-4 (400V) 31 Rated operational power AC-3 (T≤55°C) 230V kW 18.5 400V kW 30 415V kW 37 440V kW 37 500V kW 37 690V kW 45 1000V kW 30 Rated operational power AC-1 (T≤40°C) 230V kW 38 400V kW 65 500V kW 82 690V kW 114 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 50 48V Α 50 75V 50 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 70 48V 70 Α 70 75V Α 110V Α 60 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 70 48V Α 70 75V 70 Α



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	Α	25
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	30
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	55
	48V	Α	50
	75V	Α	50
	110V	Α	35
	220V	Α	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	50
01 4 (40 (150 (50 (50 (50 (50 (50 (50 (220V	A	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse	0 ((=0)		
	gG (IEC)	A	125
Mall'access (CDMO all a)	aM (IEC)	A	80
Making capacity (RMS value)		Α	650
Breaking capacity at voltage	4.4017	Δ.	500
	440V	A	520
	500V	A	425
Desigtance per pole (everges value)	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	141	147	0
	Ith	W	8
Tightoning targue for tarminals	AC3	W	3.4
Tightening torque for terminals	!	Nima	4
	min	Nm Nm	4
	max	Nm Ibin	5
	min	lbin Ibin	2.95
Tightoning targue for call terminal	max	Ibin	3.69
Tightening torque for coil terminal	min	Nim	0.0
	min	Nm Nm	0.8
	max	INIII	1



		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Пах		
	Flexible w/o lug conductor section			4.5
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
-		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
, . .		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Woight			α	1020
Weight			g	1020
Conductor section	A)A/Q/I			
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
	Od according to EN/ISO 13489-1			
	S .	rated load	cycles	1400000
		mechanical load	cycles	1500000
Mirror contate according	ng to IEC/EN 609474-4-1	Theoriamour load	Oyoloo	
	ig to 126/214 003474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	UHz		V	220
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 consu	umption at 20°C	max	,000	
AC average con consu				
	of 60Hz coil powered at 60Hz		١/٨	040
		in-rush	VA	210
		holding	VA	15
Dissipation at holding:	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
2 2.5 2 2.2 .0. 23 00	in AC			

BF6500A22060 The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

Closing NO

in AC



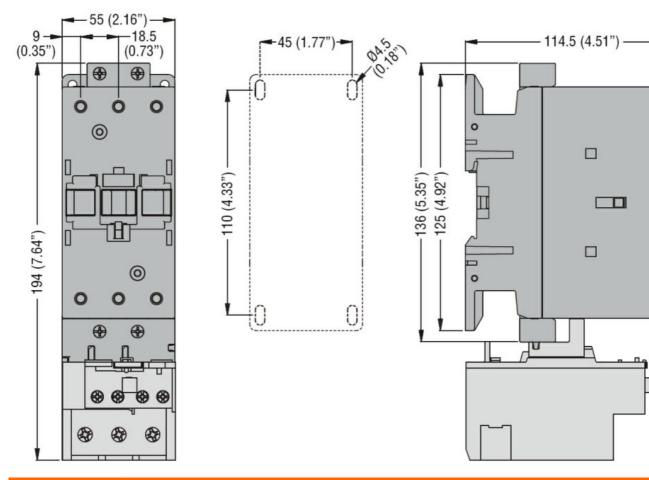


		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	65
		at 600V	Α	62
Yielded mechanical pe	erformance		_	
	for three-phase AC motor			
		200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
		AC current	Α	100
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

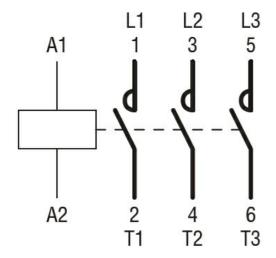
220VAC



ENERGY AND AUTOMATION



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



BF6500A22060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Power contactor Product type designation **BF65** Contact characteristics Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN ٧ 1000 k√ Rated impulse withstand voltage Uimp 8 Operational frequency min Ηъ 25 max Hz 400 IEC Conventional free air thermal current Ith 100 Α Operational current le AC-1 (≤40°C) Α 100 AC-1 (≤55°C) Α 80 AC-1 (≤70°C) 70 Α AC-3 (≤440V ≤55°C) Α 65 AC-4 (400V) 31 Rated operational power AC-3 (T≤55°C) 230V kW 18.5 400V kW 30 415V kW 37 440V kW 37 500V kW 37 690V kW 45 1000V kW 30 Rated operational power AC-1 (T≤40°C) 230V kW 38 400V kW 65 500V kW 82 690V kW 114 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 50 48V Α 50 75V 50 Α 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V 70 Α 48V 70 Α 70 75V Α 110V Α 60 220V 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 70 48V Α 70 75V 70 Α



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≥24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX CUITER REPOSEDOS WILL ETC 3 TOMS WILL 4 POIES IT SELIES	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)	-	Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	,	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	IIIAX		
	r lexible w/o lug corluctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section		•	
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
		4.10114010		Screw / DIN rail
Fixing				35mm
Weight			α	1020
Conductor section			g	1020
Conductor section	ANA/O/I			
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	· ·	rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats according	ng to IEC/EN 609474-4-1		-,	yes
EMC compatibility	19 10 12 07 21 4 000 17 1 1 1			
AC coil operating				yes
	01.1-		\ /	000
Rated AC voltage at 60	J□2		V	230
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 consu	Imption at 20°C			
	of 60Hz coil powered at 60Hz			
	5. 55. 12 56.1 powered at 56.12	in-rush	VA	210
		holding	VA VA	15
Discipation of the U.S.	<20°C FOLI-	riolaing		
Dissipation at holding:	≥∠U ∪ DU⊓∠		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
	in AC			

Closing NO

in AC



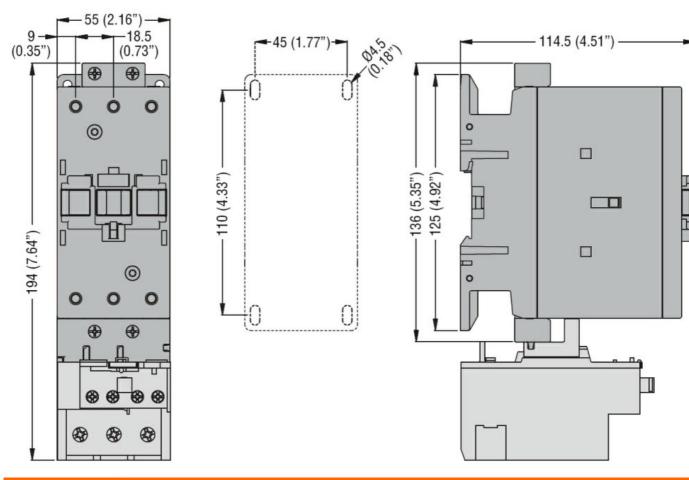


		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
	· ·	min	ms	40
		max	ms	85
	Opening NO			
	, ,	min	ms	20
		max	ms	55
UL technical data				
	A) for three-phase AC motor			
1555 5411511t (1 E/	,	at 480V	Α	65
		at 600V	A	62
Yielded mechanical p	performance	at 000 v		<u> </u>
riolaca medianidai p	for three-phase AC motor			
	ioi illiee-phase AC motor	200/208V	HP	20
		220/230V	HP	25
		460/480V	пг HP	50
Canaral LICE		575/600V	HP	60
General USE	October			
	Contactor	• • • • • • • • • • • • • • • • • • • •		400
<u> </u>		AC current	Α	100
Short-circuit protection				
	High fault	_		
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
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	tion			
Pollution degree				3
Dimensions				

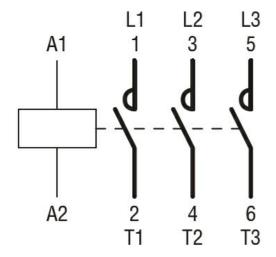
230VAC



ENERGY AND AUTOMATION



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



BF6500A23060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ, 230VAC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





			100
Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
'	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
1 (/	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
,	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
·	≤24V	Α	50
	48V	Α	50
	75V	Α	50
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	60
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
•	≤24V	Α	70
	48V	Α	70
	75V	Α	70
		-	-





	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≤24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX current le in 000-000 with E/N 3 Toms with 4 poles in series	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	()	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
-	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	lbin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	Ibin	0.8
		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section		2	
		min	mm²	1.5
		max	mm²	35
	ction according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position		1		M. C. L.L.
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1		_	
		rated load	cycles	1400000
NA'	See to 150/5N 000474 4 4	mechanical load	cycles	15000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating	2011-		W	400
Rated AC voltage at 6	ounz		V	460
AC operating voltage	-f 001			
	of 60Hz coil powered at 60Hz			
	pick-up	min	%Us	80
		min	%Us %Us	110
	drop-out	max	/005	110
	αιορ-οαι	min	%Us	20
		max	%Us	55
AC average coil cons	umption at 20°C	max	,,,,,	
5 a. c. ago oon oono	of 60Hz coil powered at 60Hz			
	5. 30. 12 00.1 porror od at 001 12	in-rush	VA	210
		holding	VA	15
Dissipation at holding	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			,	
	ontrol			
Operating times Average time for Us c	ontrol			

in AC Closing NO

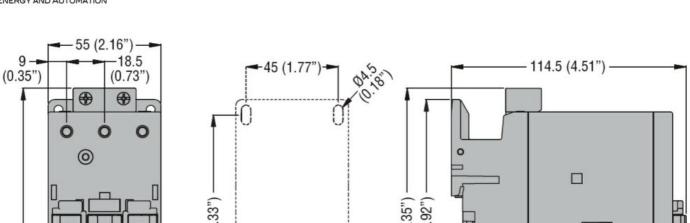


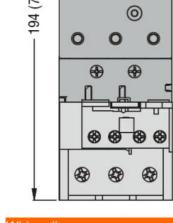


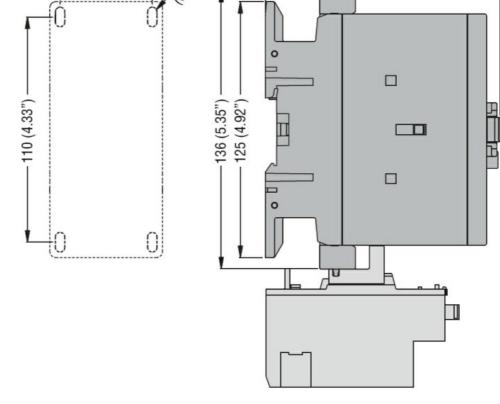
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)) for three-phase AC motor			
		at 480V	Α	65
		at 600V	Α	62
Yielded mechanical pe	erformance			
	for three-phase AC motor			
		200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
		AC current	Α	100
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				



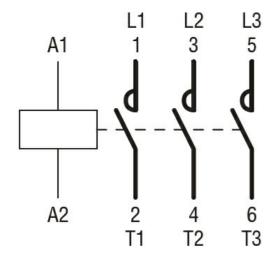
ENERGY AND AUTOMATION







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



BF6500A46060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching

ENERGY AND AUTOMATION



Product designation			Power contactor
Product type designation			BF65
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	100
Operational current le			
	AC-1 (≤40°C)	Α	100
	AC-1 (≤55°C)	Α	80
	AC-1 (≤70°C)	Α	70
	AC-3 (≤440V ≤55°C)	Α	65
	AC-4 (400V)	Α	31
Rated operational power AC-3 (T≤55°C)			
	230V	kW	18.5
	400V	kW	30
	415V	kW	37
	440V	kW	37
	500V	kW	37
	690V	kW	45
	1000V	kW	30
Rated operational power AC-1 (T≤40°C)			
	230V	kW	38
	400V	kW	65
	500V	kW	82
150 many symmetric in DOA with 1/D < 4 man with 4 males in series	690V	kW	114
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40 AV /		50
	≤24V	A	50
	48V	A	50 50
	75V 110V	A	50
	220V	A A	8
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V		
TEC max current le in DCT with E/N = mis with 2 poles in series	≤24V	Α	70
	48V	A	70 70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	220 V		<u> </u>
TEO MAX SAFFORCE III DOT WAT E/IX = TITIS WILL O POICS III SELIES	≤24V	Α	70
	48V	A	70 70
	75V	A	70 70
	750	^	. 0



	110V	Α	60
	220V	Α	90
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	70
	48V	Α	70
	75V	Α	70
	110V	Α	70
	220V	Α	110
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	35
	48V	Α	25
	75V	A	25
	110V	A	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		45
	≤24V	A	45
	48V	A	40
	75V 110V	A	40
	220V	A	30
IEC may current to in DC2 DC5 with L/D < 15mg with 2 pales in series	2200	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	۸	EE
	≤24V 48V	A A	55 50
	75V	A	50
	110V	A	35
	220V	A	52
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		32
TEO MAX current le in 000-000 with E/N 3 Toms with 4 poles in series	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V	A	50
	220V	Α	65
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)	()	Α	650
Breaking capacity at voltage			
	440V	Α	520
	500V	Α	425
	690V	Α	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC3	W	3.4
Tightening torque for terminals			
-	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	lbin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	imultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
	/ W G// Gillii	max		2
	Flexible w/o lug conductor section	Παλ		
	r lexible w/o lug corludctor section	min	mm²	1.5
		min		
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
, . .		normal		Vertical plan
		allowable		±30°
		anomable		Screw / DIN rail
Fixing				35mm
Weight				1020
			g	1020
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
	Od according to EN/ISO 13489-1			
		rated load	cycles	1400000
		mechanical load	cycles	1500000
Mirror contate coordin	og to IEC/EN 600474 4 1	The chanical load	Cycles	
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60	OHz OHz		V	575
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
	1 1	min	%Us	80
		max	%Us	110
	drop-out	max	,000	
	diop out	min	%Us	20
			%Us	55
AC 0.40ra== ==!! ===	umption at 20°C	max	/005	JJ
AC average coil consu				
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	VA	15
Dissipation at holding:	≤20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			,	
Average time for Us co	ontrol			
Average unite ior 08 60	in AC			

in AC

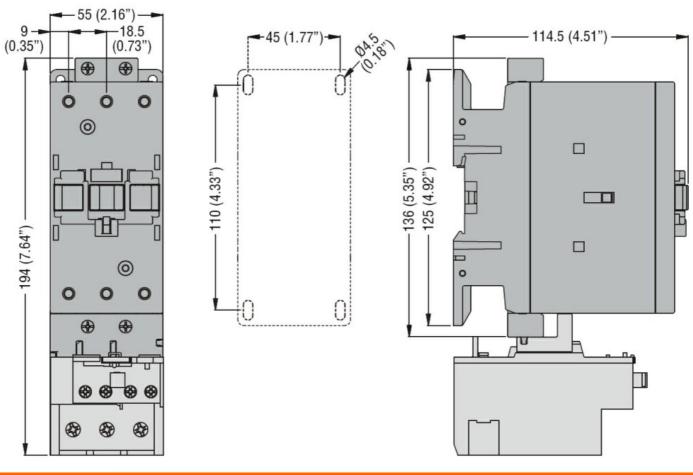
Closing NO



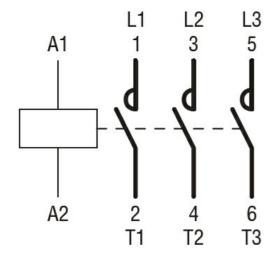


		min	ms	12
	0 : 110	max	ms	28
	Opening NO			0
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			40
		min	ms	40 85
	Opening NO	max	ms	63
	Opening NO	min	ms	20
		max	ms	55
UL technical data		IIIdA	1113	33
	for three-phase AC motor			
T dil load carrett (i EA)	Tot three phase Ao motor	at 480V	Α	65
		at 600V	A	62
Yielded mechanical pe	rformance	at 000 v		<u> </u>
riolada modilamdal pe	for three-phase AC motor			
	Tot till co pridoc / to motor	200/208V	HP	20
		220/230V	HP	25
		460/480V	HP	50
		575/600V	HP	60
General USE				
	Contactor			
		AC current	Α	100
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	Α	200
		Fuse class		RK5
Ambient conditions				
Temperature	-			
	Operating temperature			
		min	°C	-50
	0	max	°C	70
	Storage temperature		0.0	00
		min	°C	-60
May altitude		max	°C	80
Max altitude	2		m	3000
Resistance & Protectio	II			3
Pollution degree				J
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



BF6500A57560

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 65A, AC COIL 60HZ,

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching