



			30 10 10
Product designation			Power contactor
Product type designation			BF50
Contact characteristics			2.00
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			-
operational inequality	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	90
Operational current le			
	AC-1 (≤40°C)	Α	90
	AC-1 (≤55°C)	Α	75
	AC-1 (≤70°C)	Α	65
	AC-3 (≤440V ≤55°C)	Α	50
	AC-4 (400V)	Α	28
Rated operational power AC-3 (T≤55°C)	7.0 . (1001)		
· · · · · · · · · · · · · · · · · · ·	230V	kW	11
	400V	kW	22
	415V	kW	22
	440V	kW	22
	500V	kW	22
	690V	kW	30
	1000V	kW	30
Rated operational current AC-3 (T≤55°C)	10001		
Traise sporational carronity to a (1-00 c)	230V	Α	50
	400V	A	50
	415V	A	50
	440V	A	50
	500V	A	44
	690V	A	39
	1000V	A	23
Rated operational power AC-1 (T≤40°C)	1000 V		20
Nated operational power AO-1 (1340 O)	230V	kW	34
	400V	kW	59
	500V	kW	74
	690V	kW	102
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	090 V	KVV	102
ILO max ounchi le in DO i with L/N > ims with i poles in selles	≤24V	٨	45
	≤24V 48V	A A	45 40
	46 V 75 V		
	75V 110V	A	40 8
	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	2200	Α	_
TEO THAN CUITETIC TE HT DOT WITH L/K > THIS WITH 2 POICS IT SELLES	-241	٨	60
	≤24V	Α	60

	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	Α	7
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	55
	220V	A	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 v		10
120 max durient to in 201 with 2/1 = 1mo with 4 poles in solids	≤24V	Α	60
	48V	A	60
	75V		
		A	60
	110V	A	60
150 U. J. DOO DOE 311 L/D 4.45 311 4 1 1 1 1	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	.0.41.4		
	≤24V	Α	30
	48V	Α	25
	75V	Α	22
	110V	Α	3
	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	35
	48V	Α	35
	75V	Α	30
	110V	Α	25
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	45
	110V	Α	30
	220V	Α	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		,,	
120 max danon lo in 200 200 mar 21(= 10mb mar 1 poloc in condo	≤24V	Α	55
	48V	A	55 55
	75V	A	55 55
	75V 110V	A	45
	220V		50
Short-time allowable current for 10s (IEC/EN60947-1)	22U V	A A	400
Protection fuse		A	400
FIGUECIION IUSE	eO (IEO)	۸	100
	gG (IEC)	A	100
. (210	aM (IEC)	Α	50
Making capacity (RMS value)		Α	500
Breaking capacity at voltage	_	_	
	440V	Α	400
	500V	Α	352
	690V	Α	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	6.5
	AC-3	W	2
Tightening torque for terminals			



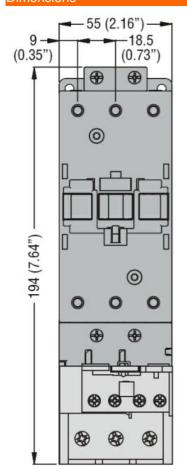
		min	Nm	4
		max	Nm	5
		min	lbin	2.95
		max	Ibin	3.69
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMO #4			
	AWG/Kcmil			
	<u></u>	max		2
	Flexible w/o lug conductor section		2	4 5
		min	mm²	1.5
	Florible about a conductor and in	max	mm²	35
	Flexible c/w lug conductor section		mm²	1 5
		min	mm²	1.5
Dower terminal profes	tion according to IEC/EN 60500	max	mm²	35 IP20 front
Mechanical features	tion according to IEC/EN 60529			IPZU ITONI
Operating position		normal		Vertical plan
		allowable		Vertical plan ±30°
-		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section			9	1020
Conductor Cochon	AWG/kcmil conductor section			
	7 TV C/Normii conductor cochon	max		2
Operations		max		_
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
•	0d according to EN/ISO 13489-1			
	3	rated load	cycles	1400000
	J	rated load mechanical load	cycles cycles	1400000 15000000
Mirror contats accordi	ng to IEC/EN 609474-4-1		-	
Mirror contats according EMC compatibility			-	15000000
			-	15000000 yes
EMC compatibility	ng to IEC/EN 609474-4-1		-	15000000 yes
EMC compatibility AC coil operating	ng to IEC/EN 609474-4-1		cycles	15000000 yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1		cycles	15000000 yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1		cycles	15000000 yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz		cycles	15000000 yes yes
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz	mechanical load	v	15000000 yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz	mechanical load	v V	15000000 yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz pick-up	mechanical load	v V	15000000 yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max	V %Us %Us	15000000 yes yes 400
EMC compatibility AC coil operating Rated AC voltage at 5	ng to IEC/EN 609474-4-1 60/60Hz of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min	v V %Us %Us %Us	15000000 yes yes 400 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min	v V %Us %Us %Us	15000000 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 of 50/60Hz coil powered at 60Hz	mechanical load min max min	V %Us %Us %Us %Us %Us	15000000 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 of 50/60Hz coil powered at 60Hz	mechanical load min max min max	V %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55

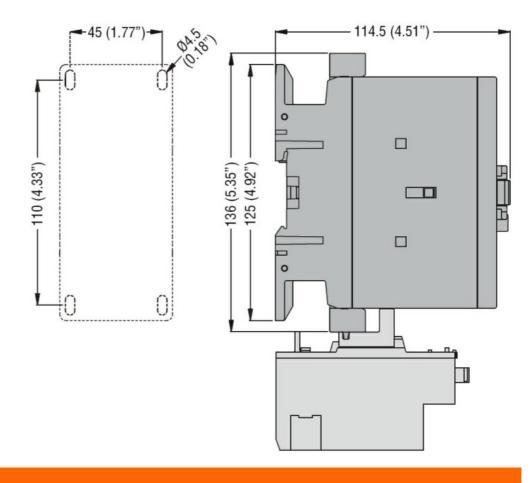


	drop-out			
	2.21	min	%Us	40
		max	%Us	55
AC average coil consur	mption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
	2000 5011	holding	VA	15
Dissipation at holding ≤	20°C 50Hz		W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO		mc	12
		min	ms	28
	Opening NO	max	ms	20
	Opening NO	min	ms	8
		max	ms	22
	in DC	Παλ	1113	
	Closing NO			
	Closhing 140	min	ms	40
		max	ms	85
	Opening NO			
	- 1 - 3 -	min	ms	20
		max	ms	55
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	52
		at 600V	Α	41
Yielded mechanical per	formance			
	for single-phase AC motor			
		110/120V	HP	5
		230V	HP	10
	for three-phase AC motor			
		200/208V	HP	15
		220/230V	HP	20
		460/480V	HP	40
0		575/600V	HP	40
General USE	O. Marta			
	Contactor	A C	۸	00
Chart aireadt acetectic	func 600V	AC current	Α	90
Short-circuit protection				
	High fault	Chart aireailt ac ar	I. A	100
		Short circuit current	kA A	100
		Fuse rating Fuse class	A	150 J
	Standard fault	Fuse Class		J
	Statiualu lault			



		Short circuit current Fuse rating Fuse class	kA A	5 150 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 & Protecti	on			
Pollution degree				3
Dimensions				

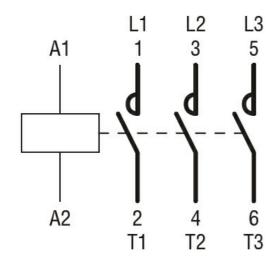




Wiring diagrams

ENERGY AND AUTOMATION

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



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