



Product designation Product type designation			Power contactor BF50
Contact characteristics			
Number of poles		nr.	3
Rated insulation voltage Ui		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith		A	90
Operating current			
	Operational current AC1 (≤40°C)	Α	90
	Operational current AC3 (≤440V ≤55°C)	Α	50
	Operational current AC4 (400V)	A	28
Rated operational power AC1 (T≤40°C)			
	230V	kW	34
	400V	kW	59
	500V	kW	74
	690V	kW	102
Rated operational power AC3 (T≤55°C)			
	230V	kW	15
	400V	kW	22
	415V	kW	30
	440V	kW	30
	500V	kW	30
	690V	kW	37
-	1000V	kW	22
Short-time allowable current for 10s (IEC/EN6	60947-1)	Α	400
Protection fuse			
	gG (IEC)	Α	100
· · · · · · · · · · · · · · · · · · ·	aM (IEC)	Α	50
Making capacity (RMS value)		Α	500
Breaking capacity at voltage			
	Breaking capacity 440V	Α	400
	Breaking capacity 500V	Α	352
	Breaking capacity 690V	A	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	W	6.5
	AC3	W	2
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbft	2.95
	max	lbft	3.69



Timbtoning towns for	a cil ta vestia a l			
Tightening torque for o	coii terminai	min	Nm	0.8
			Nm	1
		max	lbft	
		min	lbft	0.8 0.74
may number of wires	oimultana augly agna atable	max		2
	simultaneously connectable		nr.	
Conductor section	AMO			
	AWG			4.4
		min		14
		max		2
	Flexible w/o lug conductor section			
		min	mm²	1.5
	-	max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
	ction according to IEC/EN 60529			IP20 front
Auxiliary contact chara				
Operational current A			Α	90
Operating current DC	13			
		110V	Α	Screw / DIN rail
		1100	Α	35mm
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-40
		max	°C	70
	Storage temperature			
		min	°C	-50
		max	°C	80
Max altitude			m	3000
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Mounting				35mm
Weight			g	1.06
Operations			9	1.00
Mechanical life			Cycles	15000000
Electrical life			Cycles	1400000
Safety related data			Cycles	1400000
	0d according to EN/ISO 12490 1			
renormance level B1	0d according to EN/ISO 13489-1	ا د دا اد حقید	0:-!:	4.400000
		rated load	Cicli	1400000
NA:	n n 4n IFO/FN 000474 4 4	mechanical load	Cicli	15000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
	'			





of 50/60Hz coil powered at 60Hz pick-up min wus wus 0.8 max wus 0.75 AC operating voltage of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz in-rush vA 40130 holding vA 1.34.4 Dissipation at holding ≤20°C 50Hz DC coil operating DC rated control voltage DC operating voltage pick-up pick-up pick-up min wus valus 0.8 max wus 0.0 0.125 holding vA 1.72.3 Average coil consuption ≤20°C in-rush valus 0.5 Average time for Us control 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 8 max ms 22 in DC Closing NO min ms 40 max ms 85 Opening NO min ms 86 max ms 85 Opening NO min ms 86 max ms 85						
Pick-up		(50/001 ''		max	%Us	≤0.75 Us min
Max Multiple Mul		of 50/60Hz coil po				
Max Multiple Mu			ріск-ир	min	0/ I Io	0.0
AC operating voltage of 50/60Hz coil powered at 50Hz in-rush vA 40130 holding vA 134.4 vA 40130 holding vA 134.4 vA vA vA vA vA vA vA v						
AC operating voltage of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz of 50/60Hz coil powered at 60Hz in-rush vA 40130 holding vA 1.34.4 of 50/60Hz coil powered at 60Hz in-rush vA 40130 holding vA 1.34.4 Dissipation at holding \$20°C 50Hz DC coil operating DC rated control voltage DC operating voltage pick-up min v 20 To perating voltage pick-up min white will be a 1.10 to 1.00			dron-out	Παλ	/003	1.1
AC operating voltage of 50/60Hz coil powered at 50Hz in-rush holding VA 1344 of 50/60Hz coil powered at 60Hz in-rush holding VA 1344 Dissipation at holding \$20°C 50Hz DC coil operating DC rated control voltage pick-up min V 20 DC operating voltage pick-up min %Us 0.8 max %Us 1.10 drop-out min %Us 0.8 max %Us 0.55 Average coil consuption \$20°C in-rush W 60125 holding W 1.72.3 Max cycles frequency Mechanical operations Operating time for Us control in AC Closing NO min ms 12 max ms 28 Opening NO min ms 8 max ms 22 in DC Closing NO min ms 8 max ms 22 in DC Closing NO min ms 8 max ms 22 in DC Closing NO min ms 8 max ms 22 in DC Closing NO min ms 8 max ms 25 Ut technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 4110/120V hp 5			drop out	max	%Us	0.75
1	AC operating voltage			- India	7000	
In-rush VA 40130 holding VA 1.34.4	re operating remage	of 50/60Hz coil po	wered at 50Hz			
Nolding				in-rush	VA	40130
of 50/60Hz coil powered at 60Hz in-rush VA 40130 holding VA 1.34 40130 holding VA 40130 holding VA 1.34 40130 holding VA 1.34 40130 holding VA 1.34 40130 holding VA 1.34 VA 40130 holding VA 1.34 VA VA VA VA VA VA VA V						
In-rush VA 40130 holding VA 1.344 1.344 Dissipation at holding ≤20°C 50Hz VB 1.344 Dissipation at holding ≤20°C 50Hz VB 1.344 Dissipation at holding ≤20°C 50Hz VB 1.2.5 Dissipation at holding ≤20°C VB VB VB VB VB Dissipation at holding ≥0°C Min V 20 Dissipation voltage Min V 20 Dissipation voltage Min VB VB VB VB VB VB VB V		of 50/60Hz coil po	wered at 60Hz			
Dissipation at holding ≤20°C 50Hz W 12.5		•		in-rush	VA	40130
DC coil operating DC rated control voltage				holding	VA	1.34.4
DC rated control voltage	Dissipation at holding	≤20°C 50Hz			W	12.5
DC operating voltage pick-up	DC coil operating					
DC operating voltage	DC rated control voltage	ge				
Pick-up				min	V	20
Min m	DC operating voltage					
Max Mus 1.10		pick-up				
Average coil consuption ≤20°C min m				min		
Min				max	%Us	1.10
Average coil consuption ≤20°C Average coil consuption ≤20°C in-rush W 60125 holding W 172.3 Max cycles frequency Mechanical operations Cycles/h 1500 Operating times Average time for Us control in AC Closing NO		drop-out				
Average coil consuption ≤20°C in-rush W 60125 holding W 1.72.3 Max cycles frequency Mechanical operations Cycles/h 1500 Operating times Average time for Us control in AC						
In-rush holding W 60125 holding W 1723				max	<u>%Us</u>	0.55
Max cycles frequency Mechanical operations Cycles/h 1500 Operating times Closing NO In AC Closing NO min ms 12 max ms 28 Opening NO min ms 8 in DC min ms 40 Closing NO min ms 40 Mean ms 85 Opening NO min ms 40 Max ms 20 max ms 55 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor	Average coil consuption	on ≤20°C				
Max cycles frequency Mechanical operations Cycles/h 1500 Operating times Average time for Us control						
Mechanical operations	Maria de la compania del compania del compania de la compania del compania de la compania de la compania del compania de la compania del compania d			holding	VV	1.72.3
Operating times Average time for Us control In AC Closing NO min ms 12 max ms 28 Opening NO min ms 8 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 A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5					Cyroloo/h	4500
Average time for Us control 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 40 max ms 85 Opening NO min ms 55 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5					Cycles/n	1 1500
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 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 A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5	_	ontrol				
Closing NO	Average time for US Co					
Min Ms 12 Max Ms 28 Ms Ms 28 Ms Ms Ms 28 Ms Ms Ms Ms Ms Ms Ms M		III AC	Closing NO			
Opening NO min ms 8 max ms 28			Closing NO	min	me	12
Opening NO min ms 8 max ms 22						
min ms 8 max ms 22 max ms 40 max ms 85 max ms 55 max ms			Opening NO	max	1113	20
Max ms 22			oponing 110	min	ms	8
In DC Closing NO min ms 40 max ms 85 Max ms 85 Max ms 85 Max Max						
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 A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5		in DC				
Min Min			Closing NO			
Opening NO max ms 85			Ŭ	min	ms	40
Opening NO min ms 20 max ms 55 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5						
UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5			Opening NO			
UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5				min	ms	20
Full-load current (FLA) for three-phase AC motor at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5				max	ms	55
at 480V A 52 at 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5	UL technical data					
At 600V A 41 Yielded mechanical performance for single-phase AC motor at 110/120V hp 5	Full-load current (FLA)	for three-phase AC	motor			
Yielded mechanical performance for single-phase AC motor at 110/120V hp 5						
for single-phase AC motor at 110/120V hp 5		_		at 600V	A	41
at 110/120V hp 5	Yielded mechanical pe					
·		for single-phase A	.C motor			
at 230V hp 10				at 110/120V	hp	5



for three-phase AC motor			
	at 200/208V	hp	15
	at 220/230V	hp	20
	at 460/480V	hp	40
	at 575/600V	hp	40

General USE

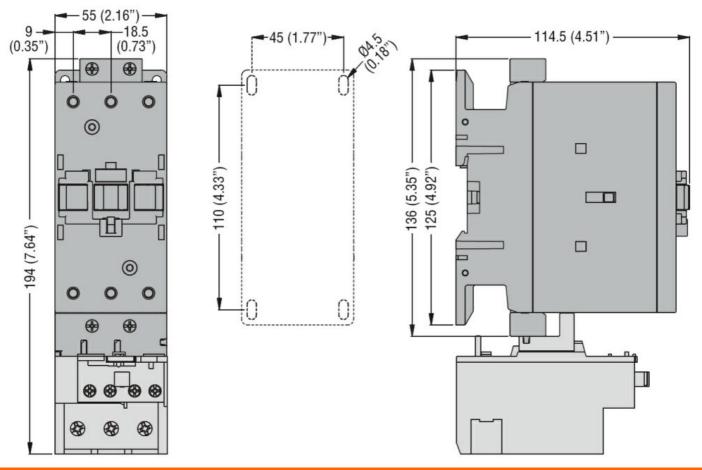
Contactor

AC current A 32

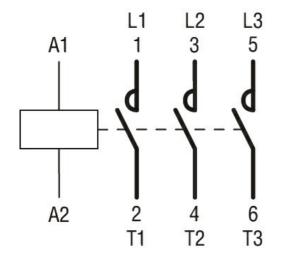
Other features

Pollution degree 3

Dimensions



Wiring diagrams







O			Programme and the
Certificat	inne and	LCOMP	liance.
Ochinical	ions and	i COITIP	nance

Certifications

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Compliance

cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching