



Product designation Power contactor Product type designation BF38

1 Todact type designation			DI 30
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
, ,	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	56
Operational current le			
	AC-1 (≤40°C)	Α	56
	AC-1 (≤40°C) with 16mm² wire and fork end		60
	AC-1 (≤55°C)	A	45
	AC-1 (≤55°C) with 16mm² wire and fork end		48
	AC-1 (≤70°C)	A	40
	AC-1 (≤70°C) with 16mm² wire and fork end		42
	AC-3 (≤440V ≤55°C)	A	38
	AC-4 (400V)	Α	15.5
Rated operational power AC-3 (T≤55°C)	, ,		
, , , , , , , , , , , , , , , , , , , ,	230V	kW	11
	400V	kW	18.5
	415V	kW	18.5
	440V	kW	18.5
	500V	kW	20
	690V	kW	22
Rated operational power AC-1 (T≤40°C)			
, ,	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
IEC max current le in DC1 with L/R ≤ 1ms with			
	≤24V	Α	35
	48V	Α	30
	75V	Α	23
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with			
	≤24V	Α	36
	48V	Α	34
	75V	Α	29
	110V	Α	32
	220V	Α	4
IEC max current le in DC1 with L/R ≤ 1ms with			•
	≤24V	Α	36
	-2.1		



	48V	Α	34
	75V	A	33
	110V	A	34
	220V	A	30
EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		- 50
EO max carrent le in BOT with E/X = 1m3 with 4 poles in series	≤24V	Α	36
	48V	A	34
	75V	A	33
	110V	A	34
	220V	A	38
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	220 V		
Lo max outlett to it boo boo with bit 1 followith 1 poles in series	≤24V	Α	24
	48V	A	20
	75V	A	17
	110V	A	
	220V	A	2,5
IFC may current to in DC2 DC5 with L/D < 15mg with 2 notes in coring	220 V	A	
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	<0.41/	۸	00
	≤24V	A	28
	48V	Α	25
	75V	Α	22
	110V	Α	18
	220V	Α	3
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	32
	48V	Α	28
	75V	Α	28
	110V	Α	23
	220V	Α	25
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	32
	48V	Α	28
	75V	Α	28
	110V	Α	23
	220V	Α	15
Short-time allowable current for 10s (IEC/EN60947-1)		Α	320
Protection fuse			
	gG (IEC)	Α	63
	aM (IEC)	Α	40
Making capacity (RMS value)		Α	380
Breaking capacity at voltage			
	440V	Α	304
	500V	Α	240
	690V	Α	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
			6
, , , , , , , , , , , , , , , , , , , ,	Ith	W	
	Ith AC3	W W	
	Ith AC3		2.9
	AC3	W	2.9
	AC3	W Nm	2.9
	AC3 min max	W Nm Nm	2.9 2.5 3
Tightening torque for terminals	AC3	W Nm	2.9



		_		
		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			
	7.17.0/1.0/11	max		6
	Flexible w/o lug conductor section	max		
	Flexible w/o lug conductor section	min	mm²	2.5
		min	mm²	2.5
		max	mm²	16
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	10
	Flexible with insulated spade lug conductor section			
	,	min	mm²	1
		max	mm²	10
Power terminal protect	tion according to IEC/EN 60529	max	.,,,,,,	IP20 when wired
Mechanical features	ion according to IEC/EN 60329			IF20 WHEIT WITEG
Operating position				
		normal		Vertical plan
	all	owable		±30°
Fixing				Screw / DIN rail
i ixiiig				35mm
Weight			g	426
Conductor section				
	AWG/kcmil conductor section			
	AVO/ROTHI CONDUCTOR Section	may		6
Operations		max		U
				0000000
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	a deceraing to Elvice in the i			
	<u> </u>	ed load	cycles	1400000
	rate		cycles cycles	
	rate mechanic		cycles cycles	20000000
Mirror contats according	rate		-	20000000 yes
Mirror contats according EMC compatibility	rate mechanic		-	20000000
Mirror contats according EMC compatibility AC coil operating	rate mechanic ng to IEC/EN 609474-4-1		cycles	20000000 yes yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ng to IEC/EN 609474-4-1		-	20000000 yes
Mirror contats according EMC compatibility AC coil operating	rate mechanic ng to IEC/EN 609474-4-1		cycles	20000000 yes yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ng to IEC/EN 609474-4-1		cycles	20000000 yes yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ng to IEC/EN 609474-4-1		cycles	20000000 yes yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz		cycles	20000000 yes yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	min	v V	20000000 yes yes 230
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic mechani	cal load	V	20000000 yes yes 230
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	min max	V %Us %Us	20000000 yes yes 230 80 110
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic mechani	min max min	v V %Us %Us %Us	20000000 yes yes 230 80 110 20
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	min max	V %Us %Us	20000000 yes yes 230 80 110
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min	v V %Us %Us %Us	20000000 yes yes 230 80 110 20
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	min max min max	V %Us %Us %Us %Us %Us	20000000 yes yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min max	V %Us %Us %Us %Us %Us	20000000 yes yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz 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 %Us	20000000 yes yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	min max min max	V %Us %Us %Us %Us %Us	20000000 yes yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz 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 %Us	20000000 yes yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 50	rate mechanic ong to IEC/EN 609474-4-1 0/60Hz 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 WUS %US %US %US %US	20000000 yes yes 230 80 110 20 55 85 110



AC average coil consu	ımption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	riolaling	VA	0.0
	or bonz con powered at bonz	مامد سامنا	١/٨	7.5
		in-rush	VA	75
		holding	VA	9
Dissipation at holding:	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ontrol			
ŭ	in AC			
	Closing NO			
		min	ms	8
			ms	24
	Ononing NO	max	1112	44
	Opening NO	٠.٠٠		E
		min	ms	5
		max	ms	15
	Closing NC			
		min	ms	9
		max	ms	20
	Opening NC			
		min	ms	9
		max	ms	17
UL technical data				
	for three-phase AC motor			
	, тол инто разволя положения	at 480V	Α	40
		at 600V	A	32
Yielded mechanical pe	orformanco	at 000 v		02
rielueu mechanical pe				
	for single-phase AC motor	440/400	ш	•
		110/120V	HP	3
		230V	HP	7.5
	for three-phase AC motor			
		200/208V	HP	10
		220/230V	HP	15
		460/480V	HP	30
		575/600V	HP	30
General USE				
	Contactor			
	23200	AC current	Α	55
Short-circuit protection	o fueo 600V	7.0 curiont		
onon-oncuit protection				
	High fault			100
		Short circuit current	kA	100
		Fuse rating	Α	100
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
Ambient conditions				
Temperature				
· cporataro				

3



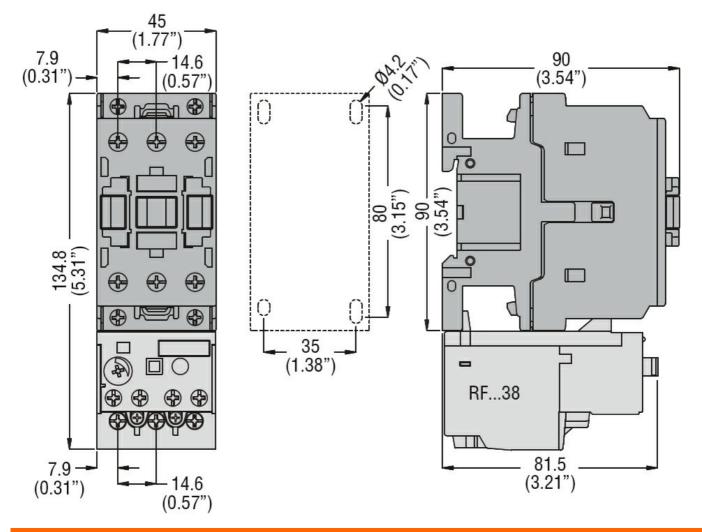
	Operating	temperature
--	-----------	-------------

	min	°C	-50
	max	°C	70
Storage temperature			_
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			

N F

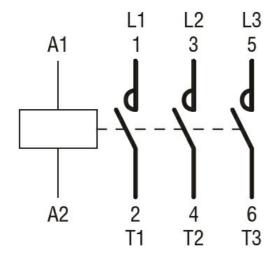
Pollution degree

Dimensions



Wiring diagrams





Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching