

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



Product designation				
Product type designation	Product designation			Power contactor
Number of poles Number of	<u> </u>			
Number of poles	,, <u> </u>			
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 90 Operational current le AC-1 (≤40°C) A 90 AC-1 (≤70°C) A 65 AC-1 (≤70°C) A 65 AC-3 (≤4400 ≤55°C) A 50 AC-2 (400°V) A 50 Rated operational power AC-3 (T≤55°C) 230V kW 11 11 400V kW 22 415V kW 22 415V kW 22 420V kW 22 420V kW 22 690V kW 30 3			Nr.	3
Rated impulse withstand voltage Uimp				
Operational frequency min max Hz max Hz hz Hz Hz Hz 400 IEC Conventional free air thermal current lth A 90 Operational current le AC-1 (≤40°C) A 90 AC-1 (≤55°C) A 75 AC-1 (≤70°C) A 65 AC-3 (≤440V ≤55°C) A 50 AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 415V kW 22 440V kW 22 500V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 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 ≤24V A 45 48 40 75 V A 60 48V A 60 75 V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 48V A 60 A 6			kV	8
Min				
EC Conventional free air thermal current lth		min	Hz	25
Operational current le AC-1 (≤40°C) A 90 AC-1 (≤55°C) A 75 AC-1 (≤70°C) A 65 AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 440V kW 22 500V kW 22 690V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 34 400V kW 39 500V kW 34 40V kW 59 500V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles i				
Operational current le AC-1 (≤40°C) A 90 AC-1 (≤55°C) A 75 AC-1 (≤70°C) A 65 AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 440V kW 22 500V kW 22 690V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 230V kW 34 400V 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 ≤24V A 60 48V A 60 75V A 60 48V A 60 75V A 60 48V A 60	IEC Conventional free air thermal current Ith		Α	90
AC-1 (≤40°C)	Operational current le			
AC-1 (≤55°C)	·	AC-1 (≤40°C)	Α	90
AC-1 (≤70°C) A 55 A 50 AC-3 (≤440V ≤55°C) A 50 AC-4 (400V) A 28 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 415V kW 22 440V kW 22 500V kW 32 500V kW 18.5 Rated operational power AC-1 (T≤40°C) 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 ≤24V A 45 48V A 40 75V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			Α	75
AC-3 (≤440V ≤55°C)			Α	65
Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 415V kW 22 4416V kW 22 500V kW 30 1000V kW 30 1000V kW 30 1000V kW 30 1000V kW 59 500V kW 59 500V kW 59 500V kW 59 500V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 45 48V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 48V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				
Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 22 415V kW 22 440V kW 22 500V kW 30 1000V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 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 ≤24V A 45 48V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 48V A 60 75V A 60 110V A 50 220V A 7 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60		,		
230V kW 11 400V kW 22 415V kW 22 415V kW 22 445V kW 22 500V kW 22 500V kW 30 1000V kW 18.5 8 1000V kW 18.5 8 1000V kW 59 500V kW 74 690V kW 102 8 1000V 100V 10	Rated operational power AC-3 (T≤55°C)	, ,		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		230V	kW	11
440V kW 22 500V kW 22 690V kW 30 1000V kW 18.5		400V		
Soov kW 30 1000V kW 18.5				
Soov kW 30 1000V kW 18.5				
Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 59 500V kW 74 690V kW 102		500V	kW	22
Rated operational power AC-1 (T≤40°C) 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 ≤24V A 45 48V A 40 75V A 40 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60 110V A 50 220V A 7		690V	kW	30
		1000V	kW	18.5
A00V kW 59 500V kW 74 690V kW 102	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R \leq 1ms with 1 poles in series \leq 24V A 45 48V A 40 75V A 40 110V A 8 220V A -		230V	kW	34
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 45		400V	kW	59
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V		500V	kW	74
		690V	kW	102
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		≤24V	Α	45
110V A 8 220V A -		48V	Α	40
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 60 48V A 60 75V A 60 110V A 50 220V A 7		75V	Α	40
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		110V	Α	8
		220V	Α	_
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	60
		48V	Α	60
		75V	Α	60
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 60 48V A 60		110V	Α	50
≤24V A 60 48V A 60		220V	Α	7
48V A 60	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
		≤24V	Α	60
75V A 60		48V	Α	60
		75V	Α	60



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	110V	Α	55
	220V	Α	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	60
	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤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	A	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	2201		
TEO MAX GUITOR TO MEDOO DOO WILL ETY = TOMO WILL 4 POICE III SONES	≤24V	Α	55
	48V	A	55
	75V	A	55
	110V	A	45
	220V	Α	50
Short-time allowable current for 10s (IEC/EN60947-1)	2201	A	400
Protection fuse			400
r rotection ruse	gG (IEC)	Α	100
	aM (IEC)	A	50
Making capacity (RMS value)	aivi (IEC)	A	500
		A	500
Breaking capacity at voltage	4401/	۸	400
	440V	A	400
	500V	A	352
Decistance per pela (everage value)	690V	A	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	1.1	14.	0.5
	Ith	W	6.5
	AC3	W	2
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



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

Weight g 1020 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 cycles 15000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 50/60Hz V 230					
Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 2 Flexible w/o lug conductor section min mmx 1.5 Flexible c/w lug conductor section min mm² 3.5 Power terminal protection according to IEC/EN 60529 IP20 front IP20 front Mechanical features IP20 front Screw / DIN ra 35 Operating position normal allowable ±30° Screw / DIN ra 35mm Fixing Screw / DIN ra 35mm Screw / DIN ra 35mm Weight g 1020 1020 Conductor section max 2 2 AWG/kcmil conductor section max 2 2 Operations g 1020 1020 Mechanical life cycles 15000000 15000000 Electrical life cycles 1400000 1400000 1400000 15000000 15000000 15000000 15000000 15000000 15000000 15000000 150000000			min		
AWG/Kcmil max 2			max		
AWG/Kcmil Piexible w/o lug conductor section min max mm² 1.5 max mm² 35 1.5 max mm² 35 1.5 max mm² 36 1.5 m		simultaneously connectable		Nr.	2
Plexible w/o lug conductor section	Conductor section	ANNO 46			
Flexible w/o lug conductor section		AWG/Kcmil			
Provided Provided		Fig. 3.1	max		2
Per Per		Flexible w/o lug conductor section	•	2	4.5
Flexible c/w lug conductor section					
Main		Elevible alvebra and destant and a	max	mm-	35
Power terminal protection according to IEC/EN 60529 IP20 front		Flexible c/w lug conductor section	min	mama ²	1 E
Power terminal protection according to IEC/EN 60529					
Necton Normal allowable Society Popularing position Normal allowable Society Popularing position Normal allowable Society Popularing Popularing Society Popularing Popular	Dower terminal protec	tion according to IEC/EN 60520	IIIdX	111111	
Operating position Normal allowable Vertical plan allowable Screw / DIN ra 35mm Weight cycles Jack Profession Mechanical life cycles 15000000 Electrical life cycles 1400000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1400000 Mirror contats according to IEC/		tion according to IEC/EN 60329			IP20 HOHL
Normal allowable 130° Nertical plan 130°					
Screw DIN race DIN	Operating position		normal		Vertical plan
Screw / DIN ra 35mm Smm					
Meight g 1020			allowable		
Mechanical life	Fixing				
AWG/kcmil conductor section max 2	Weight			a	
AWG/kcmil conductor section max	_				
Max Section Max Sectio		AWG/kcmil conductor section			
Mechanical life cycles 15000000			max		2
Mechanical life Cycles 15000000 Electrical life Cycles 1400000 Safety related data	Operations				
Electrical life cycles 1400000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 15000000 Mirror contats according to IEC/EN 609474-4-1 EMAC compatibility yes AC coil operating Rated AC voltage at 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up at 650/60Hz coil powered at 50Hz				cycles	15000000
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1400000 mechanical load rated load load rate	Electrical life				1400000
Rated load Roycles 1400000 Mirror contats according to IEC/EN 609474-4-1 yes	Safety related data			·	
Mirror contats according to IEC/EN 609474-4-1 yes	Performance level B1	0d according to EN/ISO 13489-1			
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility AC coil operating Rated AC voltage at 50/60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz			rated load	cycles	1400000
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210			mechanical load	cycles	15000000
Rated AC voltage at 50/60Hz V 230	Mirror contats accordi	ng to IEC/EN 609474-4-1			yes
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 150 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210	EMC compatibility				yes
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 155 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210	AC coil operating				
of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210	Rated AC voltage at 5	0/60Hz		V	230
Pick-up min %Us 80 max %Us 110 Max %Us 110 Max %Us 55 Max %Us 110 Max %Us 85 Max %Us 110 Max %Us 110 Max %Us 110 Max %Us 110 Max %Us 55 M	AC operating voltage				
Min %Us 80 max %Us 110		of 50/60Hz coil powered at 50Hz			
Max %Us 110		pick-up			
drop-out min %Us 20 max %Us 55			min		
min %Us 20 max %Us 55			max	%Us	110
max %Us 55		drop-out			
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 consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					
pick-up min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210			max	%Us	55
min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		•			
drop-out max %Us 110 min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		pick-up			
drop-out min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					
min %Us 40 max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		,	max	%Us	110
max %Us 55 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210		drop-out		0/11	40
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 210					
of 50/60Hz coil powered at 50Hz in-rush VA 210	A O "		max	%US	55
in-rush VA 210	AC average coll const				
		or 50/60Hz coil powered at 50Hz		\ / ^	040
nolding VA 15					
			holding	VA	15



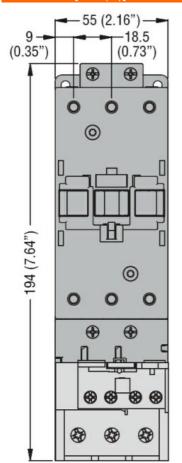
THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 50/60HZ, 230VAC

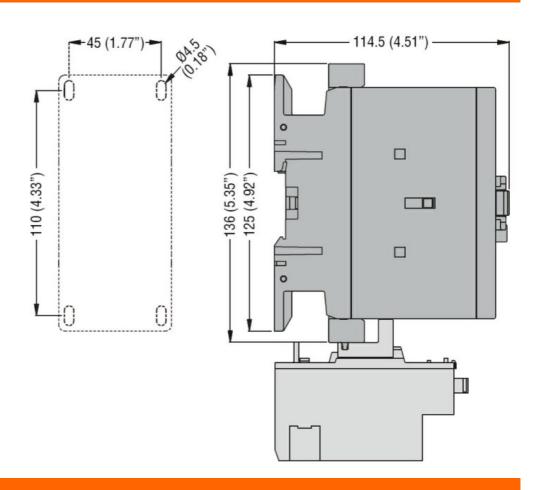
	of 50/60Hz coil powered at 60Hz			
	of 30/00112 con powered at 00112	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	Holding	VA	10
	or our iz con powered at our iz	in-rush	VA	210
		holding	VA VA	15
Dissipation at holding ≤	<20°C 50∐-7	Holding	W	5
Max cycles frequency	\$20 C 30112		VV	3
			ovoloo/b	2600
Mechanical operation Operating times			cycles/h	3600
-	netral			
Average time for Us co	in AC			
	Closing NO	min		10
		min	ms	12
	Onaning NO	max	ms	28
	Opening NO	ma:	ma	0
		min	ms	8
III to obvioul data		max	ms	22
UL technical data	for three phase AO months:			
rull-load current (FLA)	for three-phase AC motor		Α.	50
		at 480V	A	52
		at 600V	Α	41
Yielded mechanical pe				
	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
		575/600V	HP	40
General USE				
	Contactor			
		AC current	Α	90
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	150
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
		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
				-



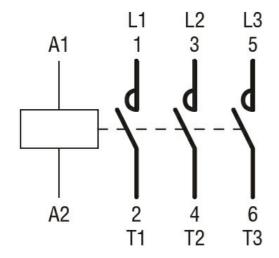
ENERGY AND AUTOMATION

Dimensions [mm (in)]





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

BF5000A230



BF5000A230

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

CCC
cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching