



Contact characteristics nr. 3 Number of poles nr. 3 Rated insulation voltage Ui V 690 Rated insulation voltage Uimp kV 6 Operational frequency min Hz 25 Operational frequency max Hz 400 Conventional frequency max Hz 400 Operating current Operational current AC3 (4400 × 85°C) A 32 Operational current AC3 (4400 × 85°C) A 32 Operational current AC3 (4400 × 85°C) A 25 Operational current AC3 (4400 × 85°C) A 10 A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 12 400V kW 12 500V kW 13 440V kW 13.4 440V kW 13.4 440V kW 13.4 500V kW 13.4 500V kW 15 690V kW 14 500V kW 13.4	Product designation Product type designation			Power contactor BF25
Number of poles nr. 3 Rated insulation voltage Uimp KV 690 Operating frequency Operational frequency min Hz 25 Operational frequency max Hz 400 32 Conventional free air thermal current lth A 32 32 Operational current AC1 (540°C) A 32 Operational current AC3 (s440V ≤55°C) A 25 Operational current AC3 (s440V ≤55°C) A 25 Operational current AC3 (s440V ≤55°C) A 25 Rated operational power AC1 (T≤40°C) 230V KW 12 400V KW 21 500V KW 26 690V KW 12 400V KW 12 400V KW 12 400V KW 13.4 400V KW 12.5 415V KW 13.4 400V KW 13.4 500V KW 15 690V KW 15 690V KW 15 <td></td> <td></td> <td></td> <td></td>				
Rated insulation voltage Ui V 690 Rated impulse withstand voltage Uimp KV 6 Operating frequency Operational frequency min Hz 25 Operational frequency max Hz 400 400 Conventional free air thermal current Ith A 32 0 Operational current AC1 (≤40°C) A 32 0 Operational current AC3 (≤440V ≤55°C) A 25 0 Operational current AC3 (≤440V ≤55°C) A 25 0 Operational current AC3 (≤440V ≤55°C) A 25 0 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 12 400V kW 26 690V kW 12.5 415V kW 13.4 440V kW 13.4 440V kW 13.4 690V kW 15 690V kW 15 690V kW 15 690V kW 16 Short-time allowable curre			nr.	3
Rated impulse withstand voltage Uimp kV 6 Operating frequency Operational frequency min Hz 25 Operational frequency max Hz 400 Conventional free air thermal current lth A 32 Operating current Operational current AC1 (≤40°C) A 32 Operational current AC3 (S440V ≤55°C) A 25 Operational current AC3 (S440V ≤55°C) A 25 Operational current AC3 (S440V ≤55°C) A 25 Operational current AC4 (400V) A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 12 400V kW 12 500V kW 21 500V kW 12 400V kW 12.5 500V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11 Short-time allowable current for 10s (IEC/EN60947-1) A 200 Protection fuse gG (IEC) A 250 Breaking capacity			V	690
Operating frequency Operational frequency min Operational frequency max Hz 25 Hz Operational frequency max Hz 400 Conventional frequency max Hz 400 Operational current AC1 (≤40°C) A 32 Operational current AC3 (≤440∨ 555°C) A 25 Operational current AC3 (≤440∨ 555°C) A 25 Operational current AC4 (400V) A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 22 690V kW 21 500V kW 22 690V kW 23 690V kW 12 400V kW 12 400V kW 12 400V kW 12 400V kW 12 400V kW 12 500V kW 12 400V kW 13 415V kW 13.4 Short-time allowable current for 10s (IEC/EN60947-1) A 200 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 25 25 25 25 25 Making capacity (RMS value) mix 102 25			kV	6
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				
Conventional free air thermal current lth A 32 Operating current Operational current AC1 (≤40°C) A 32 Operational current AC3 (≤440V ≤55°C) A 25 Operational current AC3 (≤440V ≤55°C) A 25 Operational current AC4 (400V) A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 21 500V kW 26 690V 690V kW 36 Rated operational power AC3 (T≤55°C) 230V kW 7 400V kW 13.4 415V kW 13.4 500V kW 13.4 500V kW 15 690V kW 15 690V kW 13.4 500V kW 11 Short-time allowable current for 10s (IEC/EN60947-1) A 200 200 Protection fuse gG (IEC) A 250 Breaking capacity (RMS value) A 250 250 Breaking capacity stovotage greaking capacity 440V A		Operational frequency min	Hz	25
Operating current Operational current AC1 (≤40°C) A 32 Operational current AC3 (≤440V ≤55°C) A 25 Operational current AC3 (≤440V) A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 26 690V kW 26 690V kW 36 Rated operational power AC3 (T≤55°C) 230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 15 690V kW 15 Short-time allowable current for 10s (IEC/EN60947-1) A 200 Protection fuse gG (IEC) A 50 Making capacity (RMS value) A 250 Ereaking capacity 640V A 250 Breaking capacity (RMS value) A 250 Ereaking capacity 500V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation pole (average value)		Operational frequency max	Hz	400
Operational current AC1 (≤40°C) A 32 Operational current AC3 (≤440V 55°C) A 25 Operational current AC4 (400V) A 10 Rated operational power AC1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 21 500V kW 26 690V kW 36 Rated operational power AC3 (T≤55°C) 230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 13.4 440V kW 13.4 440V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11 Short-time allowable current for 10s (IEC/EN60947-1) A 200 200 250 Breaking capacity (RMS value) A 250 250	Conventional free air thermal current Ith	· · · ·	А	32
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Operating current			
Operational current AC4 (400V)A10Rated operational power AC1 (T≤40°C)230VkW12400VkW21500VkW26690VkW36Rated operational power AC3 (T≤55°C)230VkW7400VkW12.5415VkW13.4440VkW13.4440VkW13.4500VkW15690VkW11Short-time allowable current for 10s (IEC/EN60947-1)A200Protection fusegG (IEC)A50aM (IEC)A2536Breaking capacity (RMS value)A250Breaking capacity at voltageBreaking capacity 440VA200Power dissipation pole (average value)mΩ2.5Power dissipation pole (average value)Power dissipation pole (average value)M2.6AC3W1.6Tightening torque for terminalsminNm1.5minlbft1.11.11.11.1		Operational current AC1 (≤40°C)	А	32
Rated operational power AC1 (T≤40°C)230VkW12400VkW21500VkW26690VkW36Rated operational power AC3 (T≤55°C)230VkW7400VkW12.5415VkW13.4440VkW13.4440VkW13.4500VkW15690VkW11Short-time allowable current for 10s (IEC/EN60947-1)A200Protection fusegG (IEC)A50aM (IEC)A25aM (IEC)ABreaking capacity (RMS value)ABreaking capacity 440VA200Breaking capacity 500VABreaking capacity 690VA102mΩResistance per pole (average value)mΩPower dissipation pole (average value)mΩPower dissipation pole (average value)M1.6Tightening torque for terminalsminNm1.5minIbft1.1		Operational current AC3 (≤440V ≤55°C)	А	25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Operational current AC4 (400V)	А	10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Rated operational power AC1 (T≤40°C)			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		230V	kW	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		400V	kW	21
Rated operational power AC3 (T<55°C) $230V$ kW7 $400V$ kW12.5 $415V$ kW13.4 $440V$ kW13.4 $500V$ kW15 $690V$ kW11Short-time allowable current for 10s (IEC/EN60947-1)A200Protection fusegG (IEC)A50Making capacity (RMS value)A250Breaking capacity at voltageBreaking capacity 440VA200Breaking capacity 500VA184Breaking capacity 690VA102Resistance per pole (average value)m Ω 2.5Power dissipation pole (average value)m Ω 2.6AC3W1.6Tightening torque for terminalsminNm1.5min< Nm		500V	kW	26
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		690V	kW	36
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Rated operational power AC3 (T≤55°C)			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		230V	kW	7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		400V	kW	12.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		415V	kW	13.4
690V kW 11 Short-time allowable current for 10s (IEC/EN60947-1) A 200 Protection fuse gG (IEC) A 50 aM (IEC) A 25 Making capacity (RMS value) A 250 Breaking capacity at voltage A 250 Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1		440V	kW	13.4
Short-time allowable current for 10s (IEC/EN60947-1) A 200 Protection fuse gG (IEC) A 50 aM (IEC) A 25 Making capacity (RMS value) A 250 Breaking capacity at voltage Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 min Ibft 1.1 1.1 Nm 1.5		500V	kW	15
Protection fuse gG (IEC) A 50 Making capacity (RMS value) A 250 Breaking capacity at voltage Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 500V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 min Ibft 1.1 1.1 Nm 1.8		690V	kW	11
gG (IEC) aM (IEC)A50 aMaking capacity (RMS value)A250Breaking capacity at voltageBreaking capacity 440V Breaking capacity 500V Breaking capacity 500V AA200 AResistance per pole (average value)mΩ2.5Power dissipation per pole (average value)mΩ2.5Power dissipation pole (average value)M1.6Tightening torque for terminalsminNm1.5 max NmMinNm1.5 max NmNm1.8 min NmMinIbft1.11.1	Short-time allowable current for 10s (IEC/EN	60947-1)	Α	200
aM (IEC) A 25 Making capacity (RMS value) A 250 Breaking capacity at voltage Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min lbft 1.1 1.1 1.1 1.1	Protection fuse			
Making capacity (RMS value) A 250 Breaking capacity at voltage Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 1.6 Tightening torque for terminals min Nm 1.5 min Ibft 1.1		gG (IEC)	А	50
Breaking capacity at voltage Breaking capacity 440V A 200 Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 min Nm 1.8 min Ibft 1.1		aM (IEC)	Α	25
Breaking capacity 440VA200Breaking capacity 500VA184Breaking capacity 690VA102Resistance per pole (average value)mΩ2.5Power dissipation per pole (average value)Power dissipation pole (average value) lthW2.6AC3W1.6Tightening torque for terminalsminNm1.5maxNm1.8minlbft1.1	Making capacity (RMS value)		Α	250
Breaking capacity 500V A 184 Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1	Breaking capacity at voltage			
Breaking capacity 690V A 102 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith AC3 W 2.6 AC3 W 1.6 1.6 Tightening torque for terminals min Nm 1.5 1.8 min Ibft 1.1		Breaking capacity 440V	А	200
Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1		Breaking capacity 500V	А	184
Power dissipation per pole (average value) Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1		Breaking capacity 690V	Α	
Power dissipation pole (average value) Ith W 2.6 AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1	Resistance per pole (average value)		mΩ	2.5
AC3 W 1.6 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1	Power dissipation per pole (average value)			
Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibft 1.1		Power dissipation pole (average value) Ith	W	2.6
min Nm 1.5 max Nm 1.8 min Ibft 1.1		AC3	W	1.6
max Nm 1.8 min Ibft 1.1	Tightening torque for terminals			
min lbft 1.1		min	Nm	1.5
		max	Nm	1.8
max lbft 1.5		min		
		max	lbft	1.5

Tightening torque for coil terminal



BF2501A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 400VAC, 1NC AUXILIARY CONTACT

	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
max number of wires simultaneously connectable		nr.	2
Conductor section			
AWG			
	min		16
	max		10
Flexible w/o lug conductor section			
	min	mm²	1
	max	mm²	6
Flexible c/w lug conductor section			
	min	mm²	1
	max	mm²	4
Flexible with insulated spade lug conductor section			
	min	mm²	1
	max	mm²	4
Power terminal protection according to IEC/EN 60529			IP20 when wire
Auxiliary contact characteristics			
Type of contact			1 NC
Thermal current Ith		Α	10
		A	A600 - P600
IEC/EN 60947-5-1 designation		^	
Operational current AC1 (≤40°C)		A	32
Operating current AC15			
	230V	A	3
	400V	А	1.9
	500V	Α	1.4
Operating current DC12			
	110V	Α	5.7
Operating current DC13			
	24V	А	5.7
	48V	А	2.9
	60V	A	2.3
			Screw / DIN ra
	110V	A	35mm
	125V	А	0.6
	220V	A	0.2
	600V	A	1.2
Ambient conditions	000 v	~	1.2
Temperature			
		° ^	50
Operating temperature	min	°C	-50
Operating temperature		°C	70
	max		
Storage temperature			
	min	°C	-60
Storage temperature		℃ ℃	80
Storage temperature Max altitude	min		
	min	°C	80
Storage temperature Max altitude	min	°C	80
Storage temperature Max altitude	min max	°C	80 3000
Storage temperature Max altitude	min max normal	°C	80 3000 Vertical plan

BF2501A400 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



BF2501A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ,

400VAC, 1NC AUXILIARY CONTACT

Operations				
Mechanical life			Cycles	20000000
Electrical life			Cycles	1200000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	Cicli	1200000
		mechanical load	Cicli	2000000
	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 %Us	1.1
	drop-out	Παλ	/005	1.1
		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.8
	dran aut	max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.2
AC operating voltage		Παλ	/003	0.00
no operating voltage	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			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operations	; 		Cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO	min	ma	0
		min max	ms ms	8 24
	Opening NO	IIIdX	1115	27 27
		min	ms	10
		max	ms	20

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BF2501A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 400VAC, 1NC AUXILIARY CONTACT

Closing NC



Closing NC			
	in ms	14	
		28	
m.	ax ms	20	
Opening NC			
m	in ms	7	
m	ax ms	18	
UL technical data			
Full-load current (FLA) for three-phase AC motor			
at 480	IV A	21	
at 600	V A	17	
Yielded mechanical performance			
for single-phase AC motor			
	., .	•	
at 110/120	•	2	
at 230	IV hp	3	
for three-phase AC motor			
at 200/208	SV hp	7.5	
	•		
at 220/230	•	7.5	
at 460/480		15	
at 575/600	V hp	15	
Contact rating of auxiliary contacts according to UL			- P600
		7000	1 000
General USE			
Contactor			
AC curre	nt A	32	
Other features			
Pollution degree		3	
		5	
Dimensions			
$\begin{array}{c} 6.2\\ (0.24") \\ 9(0.24") \\ 9(0.43") \\ 9(0.43") \\ 9(0.43") \\ 9(0.43") \\ 9(0.43") \\ 1.77" $	80.7 (3.18")		

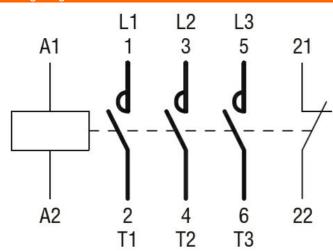
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BF2501A400 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 400VAC, 1NC AUXILIARY CONTACT

Wiring diagrams



Certifications and compliance

Certifications

Ochinications	
	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	
	CCC
	cULus
	EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching