

DATE: 2/14/2020

INVITATION TO BID  
THIS IS NOT AN ORDER

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BID NO.: 50-00129805

**JEFFERSON PARISH**

PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

VENDOR: BASIC SUPPLY, LLC

BUYER: DABRAHAM

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

**DELIVERY: FOB JEFFERSON PARISH**

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

2-3 WEEKS

INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK

INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) \_\_\_\_\_

**\*\*\* ALL BIDDERS MUST COMPLETE SECTION BELOW \*\*\***

FIRM NAME: BASIC SUPPLY, LLC

SIGNATURE:  TITLE: MANAGER  
(Must be signed here)

PRINT OR TYPE NAME: JOHN ATKINSON

ADDRESS: PO BOX 63066

CITY, STATE: LAFAYETTE, LA ZIP: 70596

TELEPHONE: ( ) 337-769-0122 FAX: ( ) 337-247-7699

EMAIL ADDRESS: charlotte@basicsupply.com

TOTAL PRICE OF ALL BID ITEMS: \$ 1440.00

DATE: 2/14/2020

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INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00129805

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	12.00	EA	<p>A purchase of (12) size 2 starters</p> <p>0001 - Starter, size 2, 120 volt, Westinghouse no. A201K2CA (0861570)</p> <p>AF40-30-11-13</p> <p>Please have items shipped to:</p> <p>Eastbank Warehouse Attention: Curtis McFarland 4901 Jefferson Hwy Suite C Jefferson, LA 70121</p>	120.00	1440.00

AF40-30-11-13

ABB AC Non-Reversing IEC Contactors, AF Series

ABB

AC Non-Reversing IEC Contactors, AF Series

Item# AF40-30-11-13

Contactor, 3-P N/O, 100-250VAC/DC Coil, Incl's 1NO & 1NC Aux  
Contacts, AC1=70A, AC3=40A

#### Specifications

Item Number: AF40-30-11-13

UPC: 888614152748

Brand:ABB

Item Category:Contactors

Subcategory:AC Non-Reversing IEC

Series:AF

Coil Voltage:100~250 VAC/VDC

Coil Type:Magnetic

Poles:3NO

Auxiliary Contacts:1NO; 1NC

Termination:Screw

General Purpose (AC1):70 Amps

UL Motor Switching (AC3):40 Amps

Max HP 200/208V 3PH:10 Horsepower

Max HP 230/240V 3PH:15 Horsepower

Max HP 460/480V 3PH:30 Horsepower

Max HP 575/600V 3PH:40 Horsepower

H x W x D:5.9 in x 3.4 in x 5.9 in

Net Weight:2 lb 2 oz

Gross Weight:2 lb 7 oz

# AF40 ... AF96 3-pole contactors

## Technical data

### Main pole - Utilization characteristics according to IEC

Contactor types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
Standards		IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1				
Rated operational voltage U <sub>e</sub> max.		690 V				
Rated frequency (without derating)		50 / 60 Hz				
Conventional free-air thermal current I <sub>th</sub>						
acc. to IEC 60947-4-1, open contactors, $\theta \leq 40^\circ\text{C}$		105 A	105 A	105 A	130 A	130 A
With conductor cross-sectional area		35 mm <sup>2</sup>	35 mm <sup>2</sup>	35 mm <sup>2</sup>	50 mm <sup>2</sup>	50 mm <sup>2</sup>
AC-1 Utilization category						
For air temperature close to contactor						
I <sub>e</sub> / Rated operational current AC-1	$\theta \leq 40^\circ\text{C}$	70 A	100 A	105 A	125 A	130 A
U <sub>e</sub> max. $\leq 690\text{ V}$ , 50/60 Hz	$\theta \leq 60^\circ\text{C}$	60 A	80 A	90 A	100 A	105 A
	$\theta \leq 70^\circ\text{C}$	50 A	70 A	80 A	85 A	90 A
With conductor cross-sectional area		25 mm <sup>2</sup>	35 mm <sup>2</sup>	35 mm <sup>2</sup>	50 mm <sup>2</sup>	50 mm <sup>2</sup>
AC-3 Utilization category						
For air temperature close to contactor $\theta \leq 60^\circ\text{C}$						
I <sub>e</sub> / Max. rated operational current AC-3 (1)						
	220-230-240 V	40 A	53 A	65 A	80 A	96 A
	380-400 V	40 A	53 A	65 A	80 A	96 A
	415 V	40 A	53 A	65 A	80 A	96 A
	440 V	40 A	53 A	65 A	80 A	96 A
	500 V	35 A	45 A	55 A	65 A	80 A
	690 V	25 A	35 A	39 A	49 A	57 A
Rated operational power AC-3 (1)						
	220-230-240 V	11 kW	15 kW	18.5 kW	22 kW	25 kW
	380-400 V	18.5 kW	22 kW	30 kW	37 kW	45 kW
	415 V	22 kW	30 kW	37 kW	45 kW	55 kW
	440 V	22 kW	30 kW	37 kW	45 kW	55 kW
	500 V	22 kW	30 kW	37 kW	45 kW	55 kW
	690 V	22 kW	30 kW	37 kW	45 kW	55 kW
Rated making capacity AC-3		10 x I <sub>e</sub> AC-3 acc. to IEC 60947-4-1				
Rated breaking capacity AC-3		8 x I <sub>e</sub> AC-3 acc. to IEC 60947-4-1				
AC-8a Utilization category						
(without thermal overload relay - U <sub>e</sub> 400 V 50/60 Hz - $\theta \leq 40^\circ\text{C}$ )						
I <sub>e</sub> / Rated operational current AC-8a		53 A	70 A	85 A	105 A	120 A
Rated operational power AC-8a		25 kW	37 kW	45 kW	55 kW	65 kW
Short-circuit protection device for contactors						
without thermal overload relay - Motor protection excluded (2)						
U <sub>e</sub> $\leq 500\text{ V}$ AC - gG type fuse		100 A	125 A	160 A	160 A	200 A
Rated short-time withstand current I <sub>cw</sub>	1 s	1000 A	1000 A	1000 A	1200 A	1200 A
at 40 °C ambient temperature,	10 s	600 A	600 A	600 A	780 A	780 A
in free air from a cold state	30 s	350 A	350 A	350 A	450 A	450 A
	1 min	250 A	250 A	250 A	300 A	300 A
	15 min	110 A	110 A	110 A	140 A	140 A
Maximum breaking capacity						
cos $\varphi = 0.45$	at 440 V	(3)				
	at 690 V	(3)				
Power dissipation per pole	I <sub>e</sub> / AC-1	3 W	6.3 W	7 W	7.6 W	8.2 W
	I <sub>e</sub> / AC-3	1 W	1.7 W	2.7 W	3 W	4.5 W
Max. electrical switching frequency	AC-1	600 cycles/h				
	AC-3	1200 cycles/h				
	AC-2, AC-4	150 cycles/h				

(1) For the corresponding kW/A or hp/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor rated operational powers and currents".

(2) For the protection of motor starters against short circuits, see "Coordination with short-circuit protection devices".

(3) On request.

# AF40 ... AF96 3-pole contactors

## Technical data

### Main pole - Utilization characteristics according to UL / NEMA / CSA

Contactor types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
Standards		UL 60947-1 / 60947-4-1A and CSA 60947-1 / 60947-4-1A				
Maximum operational voltage		600 V				
NEMA size		2	-	-	3	-
NEMA continuous amp rating	Thermal current	45 A	-	-	90 A	-
NEMA maximum horse power ratings						
1-phase, 60 Hz	115 V AC	3 hp	-	-	-	-
	230 V AC	7.5 hp	-	-	-	-
NEMA maximum horse power ratings						
3-phase, 60 Hz	200 V AC	10 hp	-	-	25 hp	-
	230 V AC	15 hp	-	-	30 hp	-
	460 V AC	25 hp	-	-	50 hp	-
	575 V AC	25 hp	-	-	50 hp	-
UL / CSA general use rating						
600 V AC		60 A	80 A	90 A	105 A	115 A
With conductor cross-sectional area		AWG 6	AWG 4	AWG 3	AWG 2	AWG 2
UL / CSA maximum 1-phase motor rating						
Full load current	120 V AC	34 A	34 A	56 A	80 A	80 A
	240 V AC	40 A	50 A	68 A	68 A	88 A
Horse power rating	120 V AC	3 hp	3 hp	5 hp	7-1/2 hp	7-1/2 hp
	240 V AC	7-1/2 hp	10 hp	15 hp	15 hp	20 hp
UL / CSA maximum 3-phase motor rating						
Full load current (1)	200-208 V AC	32.2 A	48.3 A	62.1 A	78.2 A	92 A
	220-240 V AC	42 A	54 A	68 A	80 A	80 A
	440-480 V AC	40 A	52 A	65 A	77 A	77 A
	550-600 V AC	41 A	52 A	62 A	77 A	77 A
Horse power rating (1)	200-208 V AC	10 hp	15 hp	20 hp	25 hp	30 hp
	220-240 V AC	15 hp	20 hp	25 hp	30 hp	30 hp
	440-480 V AC	30 hp	40 hp	50 hp	60 hp	60 hp
	550-600 V AC	40 hp	50 hp	60 hp	75 hp	75 hp
Short-circuit protection device for contactors						
without thermal overload relay - Motor protection excluded						
High fault current		100 kA				
Fuse rating		150 A	150 A	150 A	200 A	200 A
Fuse type, 600 V		J				
Maximum electrical switching frequency						
For general use		600 cycles/h				
For motor use		1200 cycles/h				

(1) For the corresponding kW/A or hp/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor rated operational powers and currents".

### General technical data

Contactor types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
Rated insulation voltage Ui		690 V				
acc. to IEC 60947-4-1		600 V				
acc. to UL / CSA		1000 V				
Rated impulse withstand voltage Uimp.		6 kV				
Electromagnetic compatibility		8 kV				
Ambient air temperature close to contactor		Devices complying with IEC 60947-1 / EN 60947-1				
Operation	Fitted with thermal overload relay	(2)				
	Without thermal overload relay	-40...+70 °C				
Storage		-60...+80 °C				
Climatic withstand		Category B according to IEC 60947-1 Annex Q				
Maximum operating altitude (without derating)		3000 m				
Mechanical durability						
Number of operating cycles		10 millions operating cycles				
Maximum switching frequency		3600 cycles/h				
Shock withstand						
acc. to IEC 60068-2-27 and EN 60068-2-27						
Mounting position 1						
	Shock direction	1/2 sinusoidal shock for 11 ms: no change in contact position, closed or open position				

(2) On request.

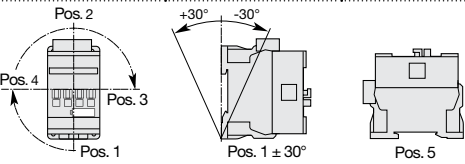
# AF40 ... AF96 3-pole contactors

## Technical data

### Magnet system characteristics

Contact types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
Coil operating limits	AC supply	At $\theta \leq 70\text{ }^{\circ}\text{C}$ 0.85 x Uc min...1.1 x Uc max.				
acc. to IEC 60947-4-1	DC supply	At $\theta \leq 70\text{ }^{\circ}\text{C}$ 0.85 x Uc min...1.1 x Uc max.				
AC control voltage 50/60 Hz						
Rated control circuit voltage Uc		24...500 V AC				
Coil consumption	Average pull-in value	25 VA			40 VA	
	Average holding value	4 VA / 2 W				
DC control voltage						
Rated control circuit voltage Uc		20...500 V DC				
Coil consumption	Average pull-in value	25 W			40 W	
	Average holding value	2 W				
PLC-output control						
Drop-out voltage		≤ 60 % of Uc min.				
Voltage sag immunity						
acc. to SEMI F47-0706		conditions of use on request				
Dips withstand						
-20 °C ≤ θ ≤ +60°C		24 ms average				
Operating time						
Between coil energization and:	N.O. contact closing	42...100 ms				
	N.C. contact opening	38...95 ms				
Between coil de-energization and:	N.O. contact opening	17...100 ms				
	N.C. contact closing	19...105 ms				

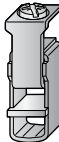
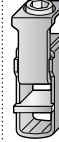










### Mounting characteristics and conditions for use

Contact types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
<b>Mounting positions</b>						
 <p>Max. N.C. built-in and add-on N.C. auxiliary contacts: see accessory fitting details for a 3-pole contactor AF40 ... AF96</p>						
<b>Mounting distances</b>						
The contactors can be assembled side by side						
<b>Fixing</b>						
On rail according to IEC 60715, EN 60715						
35 x 7.5 mm or 35 x 15 mm						
By screws (not supplied)						
2 x M4 or 2 x M6 screws placed diagonally						

# AF40 ... AF96 3-pole contactors

## Technical data

### Connecting characteristics

Contactor types	AC / DC operated	AF40	AF52	AF65	AF80	AF96
Main terminals		 Screw terminals with double connector 2 x (9.3 width x 7.9/10.3 depth)			 Screw terminals with double connector 2 x (12.4 width x 9.3/11.1 depth)	
Connection capacity (min. ... max.)						
Main conductors (poles)						
 Rigid	Solid ( $\leq 4 \text{ mm}^2$ )	} 1 x	6...35 mm <sup>2</sup>		6...70 mm <sup>2</sup>	
 Stranded ( $\geq 6 \text{ mm}^2$ )			2 x	6...35 mm <sup>2</sup>		6...50 mm <sup>2</sup>
 Flexible with non insulated ferrule		1 x	4...35 mm <sup>2</sup>		6...50 mm <sup>2</sup>	
		2 x	4...35 mm <sup>2</sup>		6...50 mm <sup>2</sup>	
 Flexible with insulated ferrule		1 x	4...35 mm <sup>2</sup>		6...50 mm <sup>2</sup>	
		2 x	4...35 mm <sup>2</sup>		6...50 mm <sup>2</sup>	
 Bars or lugs		L <	9.2 mm		12.2 mm	
Connection capacity acc. to UL/CSA		1 or 2 x	AWG 10...2		AWG 6...1	
Stripping length			16 mm		17 mm	
Tightening torque			4 Nm / 35 lb.in		6 Nm / 53 lb.in	
Auxiliary conductors						
(built-in auxiliary terminals + coil terminals)						
 Rigid solid		1 x	1...2.5 mm <sup>2</sup>			
 Stranded		2 x	1...2.5 mm <sup>2</sup>			
 Flexible with non insulated ferrule		1 x	0.75...2.5 mm <sup>2</sup>			
		2 x	0.75...2.5 mm <sup>2</sup>			
 Flexible with insulated ferrule		1 x	0.75...2.5 mm <sup>2</sup>			
		2 x	0.75...1.5 mm <sup>2</sup>			
 Lugs		L <	8 mm			
Connection capacity acc. to UL/CSA		1 or 2 x	AWG 18...14			
Stripping length			10 mm			
Tightening torque						
Coil terminals			1.2 Nm / 11 lb.in			
Built-in auxiliary terminals			1.2 Nm / 11 lb.in			
Degree of protection						
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529						
Main terminals			IP10			
Coil terminals			IP20			
Built-in auxiliary terminals			IP20			
Screw terminals						
Main terminals			Delivered in open position, screws of unused terminals must be tightened			
			M6		M8	
	Screwdriver type		Flat Ø 6.5 / Pozidriv 2		Hexagon socket (s = 4 mm)	
Coil terminals			M3.5			
	Screwdriver type		Flat Ø 5.5 / Pozidriv 2			
Built-in auxiliary terminals			M3.5			
	Screwdriver type		Flat Ø 5.5 / Pozidriv 2			

# AF09 ... AF96 3-pole contactors

## Technical data

### Built-in auxiliary contacts according to IEC

Contactor types	AC / DC operated	AF09	AF12	AF16	AF26	AF30	AF38	AF40	AF52	AF65	AF80	AF96
Rated operational voltage U <sub>e</sub> max.		690 V										
Rated frequency (without derating)		50 / 60 Hz										
Conventional free air thermal current I <sub>th</sub> - θ ≤ 40 °C		16 A										
I <sub>e</sub> / Rated operational current AC-15												
acc. to IEC 60947-5-1	24-127 V 50/60 Hz	6 A										
	220-240 V 50/60 Hz	4 A										
	400-440 V 50/60 Hz	3 A										
	500 V 50/60 Hz	2 A										
	690 V 50/60 Hz	2 A										
Making capacity AC-15		10 x I <sub>e</sub> AC-15 acc. to IEC 60947-5-1										
Breaking capacity AC-15		10 x I <sub>e</sub> AC-15 acc. to IEC 60947-5-1										
I <sub>e</sub> / Rated operational current DC-13												
acc. to IEC 60947-5-1	24 V DC	6 A / 144 W										
	48 V DC	2.8 A / 134 W										
	72 V DC	1 A / 72 W										
	110 V DC	0.55 A / 60 W										
	125 V DC	0.55 A / 69 W										
	220 V DC	0.27 A / 60 W										
	250 V DC	0.27 A / 68 W										
	400 V DC	0.15 A / 60 W										
	500 V DC	0.13 A / 65 W										
	600 V DC	0.1 A / 60 W										
Short-circuit protection device gG type fuse		10 A										
Rated short-time withstand current I <sub>ow</sub>	for 1.0 s	100 A										
	for 0.1 s	140 A										
Minimum switching capacity		12 V / 3 mA										
with failure rate acc. to IEC 60947-5-4		10 <sup>-7</sup>										
Non-overlapping time between N.O. and N.C. contacts		≥ 2 ms										
Power dissipation per pole at 6 A		0.1 W										
Max. electrical switching frequency	AC-15	1200 cycles/h										
	DC-13	900 cycles/h										
Mechanically linked contacts		Built-in N.O. or N.C. auxiliary contacts and additional N.O. or N.C. auxiliary contacts (CA4, CAL4, CAT4 aux. contact blocks) are mechanically linked contacts.										
acc. to annex L of IEC 60947-5-1												
Mirror contacts		Built-in N.C. auxiliary contacts or additional N.C. auxiliary contacts (CA4, CAL4, CAT4 aux. contact blocks) are mirror contacts.										
acc. to annex F of IEC 60947-4-1												

### Built-in auxiliary contacts according to UL / CSA

Contactor types	AC / DC operated	AF09	AF12	AF16	AF26	AF30	AF38	AF40	AF52	AF65	AF80	AF96
Max. operational voltage		600 V AC, 600 V DC										
Pilot duty		A600, Q600										
AC thermal rated current		10 A										
AC maximum volt-ampere making		7200 VA										
AC maximum volt-ampere breaking		720 VA										
DC thermal rated current		2.5 A										
DC maximum volt-ampere making-breaking		69 VA										