

AC Motor Selection – Marathon® Single-Phase Motors

marathon®
Motors

Marathon® Single-Phase Motor Selection		
Single-Phase Characteristic	Powerwash SXT	JetPump
Electrical Characteristics		
Horsepower range	1/2 – 2	1/3 – 2
Base speed (# poles)	1800 (4)	3600 (2)
Standard voltage	115/230	115/230
Phase / Base frequency (Hz)	1 / 60	
Service factor	1.0	1.0 / 1.15
Design code (NEMA)	B	N/A***
Insulation class	F	B
Insulation system	CR ²⁰⁰ magnet wire	N/A***
Duty cycle	Continuous	
Thermal protection	None	Automatic Reset
Mechanical Characteristics		
Frame size (mounting)	56C – 145TC	56J
Enclosure	TEFC, TENV	TEFC
Frame material	300 Series Stainless Steel	Rolled Steel
End bracket material	Stainless Steel	Cast Aluminum, Steel
Conduit box material	Stainless Steel	Steel
Fan guard material	Stainless Steel	Steel
Fan material	Polypropylene	Plastic
Lead termination	Conduit box	Conduit box Flying Leads (Jxxx Models) .33HP to 3HP
Standard mounting	C-Face with Rigid Base & C-Face Round Body	Footless
Drive end shaft slinger	No	Yes
Paint	N/A	Gray powder-coat
Bearings	Double Sealed	
Grease	Exxon Polyrex EM	
Standard conduit box assembly position	F1	F1
Performance Characteristics		
Temperature rise	N/A***	N/A***
Encoder provisions	No	No
Other Characteristics		
Warranty *	12 months from Installation. 18 months from Purchase.	
Agency listings **	UL Recognized, CSA Certified, and CE Mark	
<p>* See Terms and Conditions for motor warranty explanation. Marathon warranty service can be arranged through Marathon Electric service centers. See list of service centers on our website at www.automationdirect.com.</p> <p>** To obtain the most current agency approval information, see the Agency Approval Checklist on the specific part number's web page.</p> <p>*** Data not available from manufacturer.</p>		

Jet Pump (Centrifugal), Single-Phase Totally Enclosed Motors

C-Face Footless, 56J



Features

- Service Factor is 1.0 or 1.5, depending on model
- Double-sealed ball bearings, mechanically locked on shaft end
- Capacitor start/capacitor run design for higher efficiency, as noted
- Automatic reset thermal protector
- 416 stainless steel threaded shaft with slinger (NEMA 56 frame)
- Drip cover not included
- UL Recognized and CSA Certified

Applications

- Typical uses include: jet pumps and jet pump motor replacements.



Motor Shipping Schedule *

Same or one day * Up to 7 days Up to 10 days

Color indicates shipping lead time in business days. Check stock status online.

* Certain heavy and oversized items can be shipped only via LTL. Check our website for current shipping method constraints by part number.

Motor Specifications – Jet Pump (Centrifugal) Single-Phase Totally Enclosed Motors

Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	Weight (lb)*	Footnotes
C1336	\$246.00	1/3	3600	115/230	TEFC	N/A**	56J	5KC33FN4180X	13.5	None
C465	\$304.00	1/2						5KC39QN3218X	24.5	Model on nameplate may be 5KC39QN3218GX
C352	\$349.00	1						5KC49NN2135X	29	15
C878	\$525.00	2						5KCR49TN2164T	38	ES,1,15

* Refer to the Motor Shipping Schedule table for shipping information. Certain heavy and oversized items can be shipped only via LTL. Check our website for current shipping method constraints by part number.

** Data not available from manufacturer.

Footnotes: 1 = Capacitor Start/Capacitor Run design for reduced amperage
15 = Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
ES = Energy Saver Design

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Jet Pump (Centrifugal), Single-Phase Totally Enclosed Motors

C-Face Footless, 56J

Performance Data

Performance Data Single-Phase 56J Frame Motors (230V/60Hz except as indicated) Jet Pump (Centrifugal) Totally Enclosed Motors											
Part Number	HP	F.L. RPM	Current @ 115V/230V (Amps)			Torque (lb-ft)			F.L. Effic. %	F.L. Power Factor	Rotor Inertia (lb-ft ²)
			No Load 230V	Full Load 115/230V	Locked Rotor	Full Load	Locked Rotor	Break-down			
C1336	1/3	3450	2.3	5.6 / 2.8	14	0.51	1.33	1.51	N/A**	N/A**	0.012
C465	1/2	3450	2.8	7.4 / 3.7	20.5	0.76	1.18	2.29	N/A**	N/A**	0.017
C352	1	3450	3.6	13.0 / 6.5	40.5	1.52	3.07	4.14	N/A**	N/A**	0.036
C878	2	3450	1.27	17.8 / 8.9	52.8	3.04	4.60	6.12	N/A**	N/A**	0.055

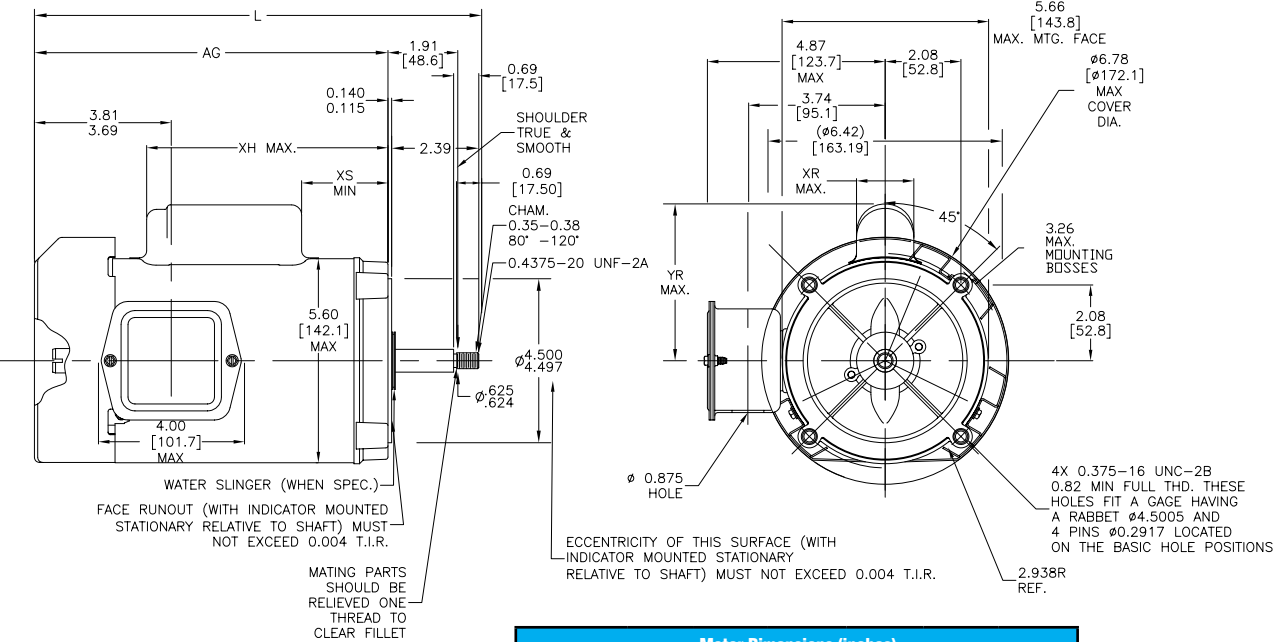
* Maximum Constant HP RPM is for direct-coupled loads.
** Data not available from manufacturer

See our website: www.AutomationDirect.com for complete engineering drawings.

Dimensions

in [mm]

Figure 1 – C1336, C465, C352 Dimensions



Motor Dimensions (inches)						
Part Number	L	AG	XH	XR	XS	YR
C1336	11.87	9.28	6.61	1.60	1.43	4.34
C465	11.87	9.28	6.61	1.60	1.43	4.34
C352	12.87	10.28	7.61	1.60	2.03	4.34

Jet Pump (Centrifugal), 3-Phase Totally Enclosed Motors

C-Face Footed (Removable Base) 56J

Features

- Service Factor is 1.15
- Double-sealed ball bearings, mechanically locked on shaft end
- Continuous Duty
- Nameplate 60/50 Hz, 190/380 volts at next lower HP, as noted
- 56J = 416 stainless steel threaded shaft with slinger
- UL Recognized, CSA Certified and CE Mark
- Drip cover kit included
- IP43 Rating

Applications

- Replaces 90 volt and 180 volt PMDC motors (when used with AC variable frequency drives)
- Typical uses include: jet pumps and jet pump motor replacements, well pumps, and liquid pumping applications.



Motor Shipping Schedule *		
Same or one day *	Up to 7 days	Up to 10 days
Color indicates shipping lead time in business days. Check stock status online.		
* Certain heavy and oversized items can be shipped only via LTL. Check our website for current shipping method constraints by part number.		

Motor Specifications – Jet Pump (Centrifugal) 3-Phase Totally Enclosed Motors											
Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	F.L. Amps	Weight (lb)*	Footnotes
J061	\$215.00	1/2	3600	208-230/460 - 190/380	TEFC	B	56J	56T34F5342 D	2.0-2.2/1.1 - 1.85/0.92	23	68
J062	\$252.00	3/4		208-230/460 - 190/380				56T34F5343 D	3.0-3.2/1.6 - 3.0/1.5	23	
J063A	\$305.00	1		230/460 - 190/380				56T34F99029 A	3/0/1.5 - 2.6/1.3	25	Nameplate footnote: Suitable for 208V at 60Hz
J064A	\$378.00	1-1/2		208-230/460 - 190/380				56T34F99018 A	4.2-4.0/2.0 - 3.4/1.7	26	68
J065A	\$435.00	2		230/460 - 190/380				56T34F15592 A	5.0/2.5 - 4.6/2.3	30	Nameplate footnote: Suitable for 208V at 60Hz
* Refer to the Motor Shipping Schedule table for shipping information. Certain heavy and oversized items can be shipped only via LTL. Check our website for current shipping method constraints by part number.											
Footnotes: 68 = Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower											
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Jet Pump (Centrifugal), 3-Phase Totally Enclosed Motors

C-Face Footed (Removable Base) 56J

Performance Data – Jet Pump (Centrifugal) 3-Phase Totally Enclosed Motors												
Part Number	HP	F.L. RPM	Min. RPM	F.L. AMPS @460V	N.L. AMPS @460V	F.L. Torque (lb-ft)	B.D. Torque (lb-ft)	Max. CHP RPM*	Max. Safe RPM	F.L. Effic.	F.L. Power Factor	Rotor Inertia (lb-ft ²)
J061	1/2	3450	345	1.1	0.7	0.76	3.8	2700	4000	66	69.7	0.02
J062	3/4		345	1.6	1.0	1.14	5.6			74	69.1	0.023
J063A	1		345	1.5	0.75	1.5	4.8			78.5	79.1	0.023
J064A	1-1/2		345	2.0	0.9	2.2	9.6			84	83.5	0.045
J065A	2		345	2.5	1	3.0	12.2			85.5	86	0.065

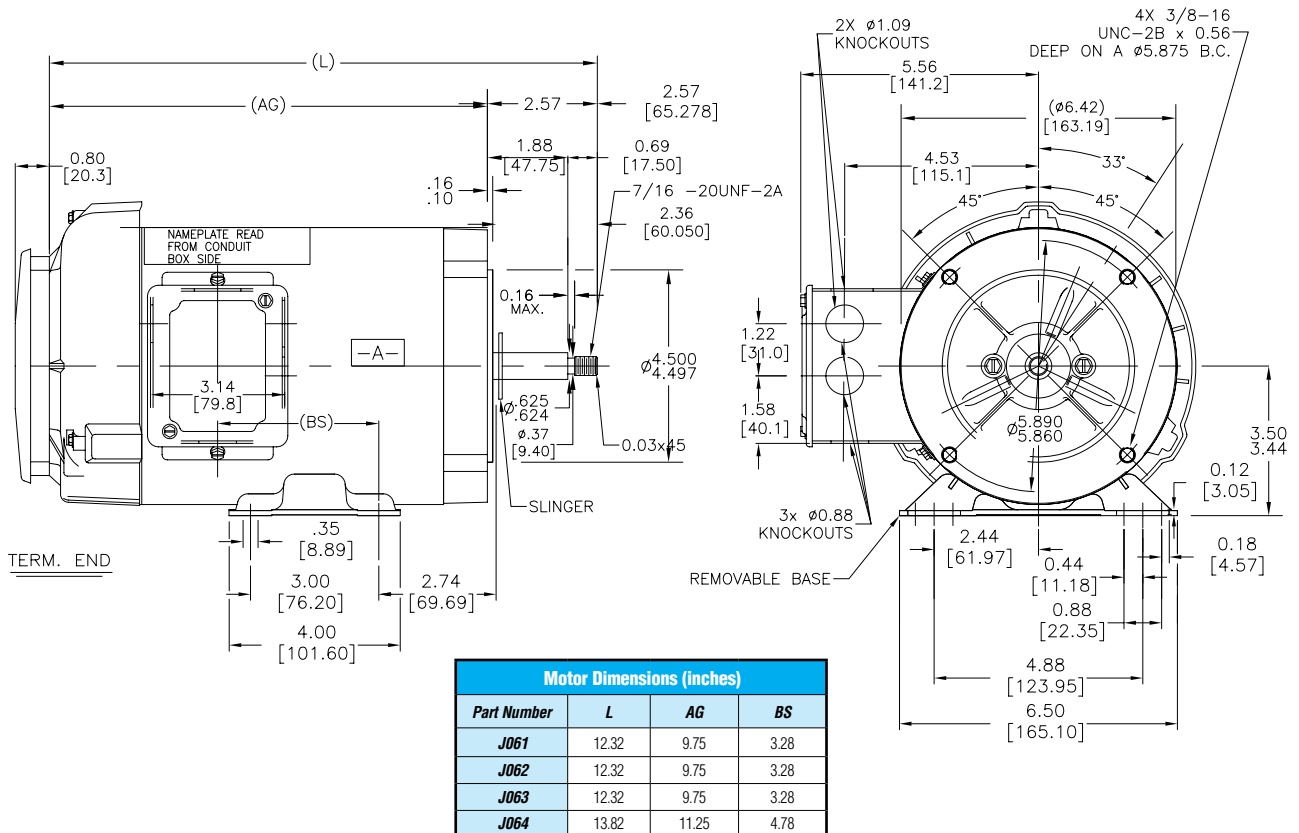
* Maximum Constant HP RPM is for direct-coupled loads.

See our website: www.AutomationDirect.com for complete engineering drawings.

Dimensions

in [mm]

Figure 1 – J061, J062, J063, J064 Dimensions



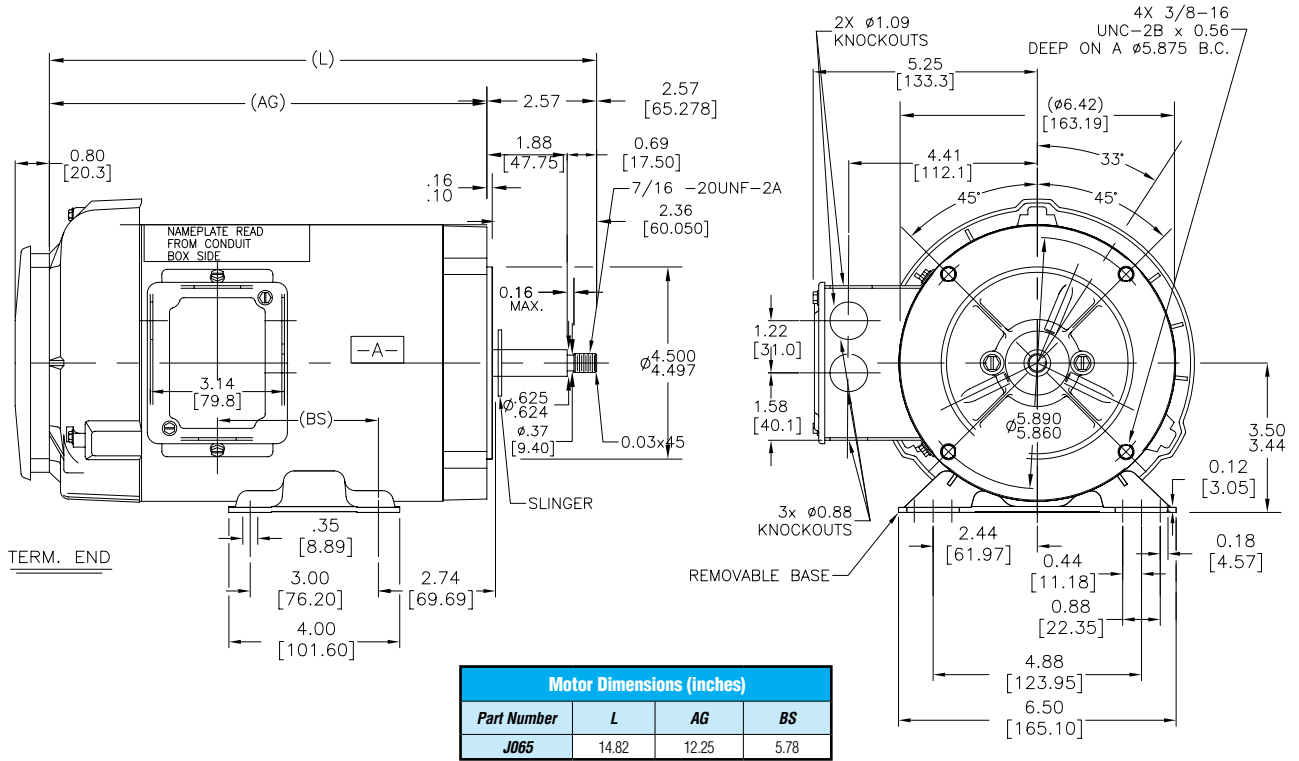
Jet Pump (Centrifugal), 3-Phase Totally Enclosed Motors

C-Face Footed (Removable Base) 56J

Dimensions

in [mm]

Figure 2 – J065 Dimensions



Jet Pump (Centrifugal), 3-Phase Drip-proof Motors

C-Face Footed (Rigid Base) 56J/56HJ

Features

- Service Factor, as noted
- Double-sealed ball bearings, mechanically locked on shaft end
- Continuous Duty
- Nameplate 60/50 Hz, 190/380 volts at next lower HP, as noted
- 56J = 416 stainless steel threaded shaft with slinger
- UL Recognized, CSA Certified and CE Mark
- Drip cover kit included
- IP22 Rating

Applications

- Typical uses include: jet pumps and jet pump motor replacements, well pumps, and liquid pumping applications



Motor Shipping Schedule *

Same or one day * Up to 7 days Up to 10 days

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Motor Specifications – Jet Pump (Centrifugal) 3-Phase Drip-proof Motors

Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	F.L. Amps	Weight (lb)*	Footnotes
J047	\$159.00	1/3	3600	208-230/460 - 190/380	DP	B	56J	56T34D5368 D	1.2-1.1/0.55 - 1.1/0.55	21	68
J048	\$179.00	1/2						56T34D5367 D	1.9-2.2/1.1 - 2.0/1.0	21	
J049	\$215.00	3/4						56T34D5365 D	3.0-3.2/1.6 - 2.8/1.4	22	
J050	\$245.00	1						56T34D5366 D	3.7-3.7/1.85 - 3.4/1.7	23	
J051	\$297.00	1-1/2						56T34D5369 D	5.2-5.0/2.5 - 4.3/2.15	23	
J052	\$347.00	2					56HJ	56T34D5370 D	6.4-6.2/3.1 - 6.0/3.0	30	
J053	\$389.00	3					56T34D5371 D	8.9-8.4/4.2 - 7.0/3.5	32		

* Refer to the Motor Shipping Schedule table for shipping information.

Certain heavy and oversized items can be shipped only via LTL. Check our website for current shipping method constraints by part number.

Footnotes: 68 = Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

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Jet Pump (Centrifugal), 3-Phase Drip-proof Motors

C-Face Footed (Rigid Base) 56J

Performance Data (460 Volt except as indicated) – Jet Pump (Centrifugal) 3-Phase Drip-proof Motors												
Part Number	HP	F.L. RPM	Min. RPM	F.L. AMPS @460V	N.L. AMPS @460V	F.L. Torque (lb-ft)	B.D. Torque (lb-ft)	Max. CHP RPM*	Max. Safe RPM	F.L. Effic.	F.L. Power Factor	Rotor Inertia (lb-ft ²)
J047	1/3	3450	345	0.55	0.4	0.5	2.1	2700	4000	67.7	84.4	0.02
J048	1/2		345	1.1	0.7	0.76	3.8			66	69.7	0.022
J049	3/4		345	1.6	1.0	1.15	5.4			74	69	0.023
J050	1		345	1.85	1.1	1.5	7			74	71.3	0.03
J051	1-1/2		345	2.5	1.5	2.3	7.7			80	74.4	0.023
J052	2		345	3.1	1.7	3.0	10			80	78.2	0.026
J053	3		345	4.2	2.0	4.5	15			84	82	0.04

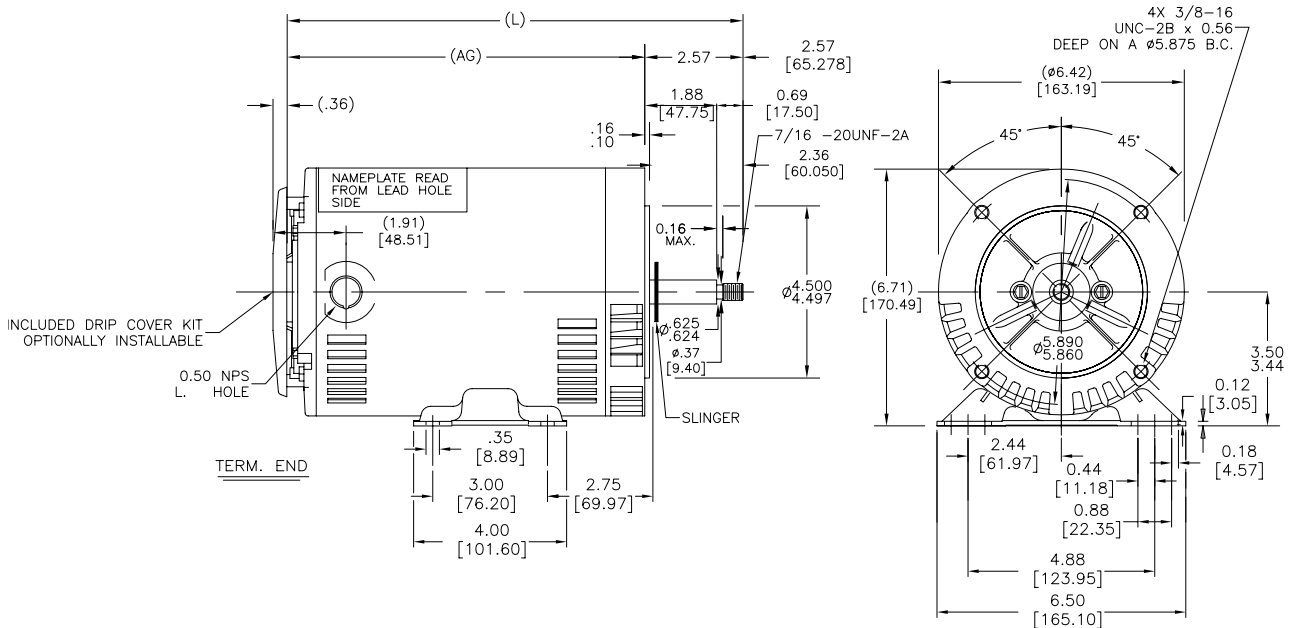
* Maximum Constant HP RPM is for direct-coupled loads.

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Dimensions

in [mm]

Figure 1 – J047, J048, J049, J050, J051 Dimensions



CAT #	FR.	L	AG
J047	56-60	10.43	7.86
J048	"-65	10.93	8.36
J049	"-65	10.93	8.36
J050	"-65	10.93	8.36
J051	"-65	10.93	8.36

Motor Dimensions (inches)		
Part Number	L	AG
J047	10.43	7.86
J048	10.93	8.36
J049	10.93	8.36
J050	10.93	8.36
J051	10.93	8.36

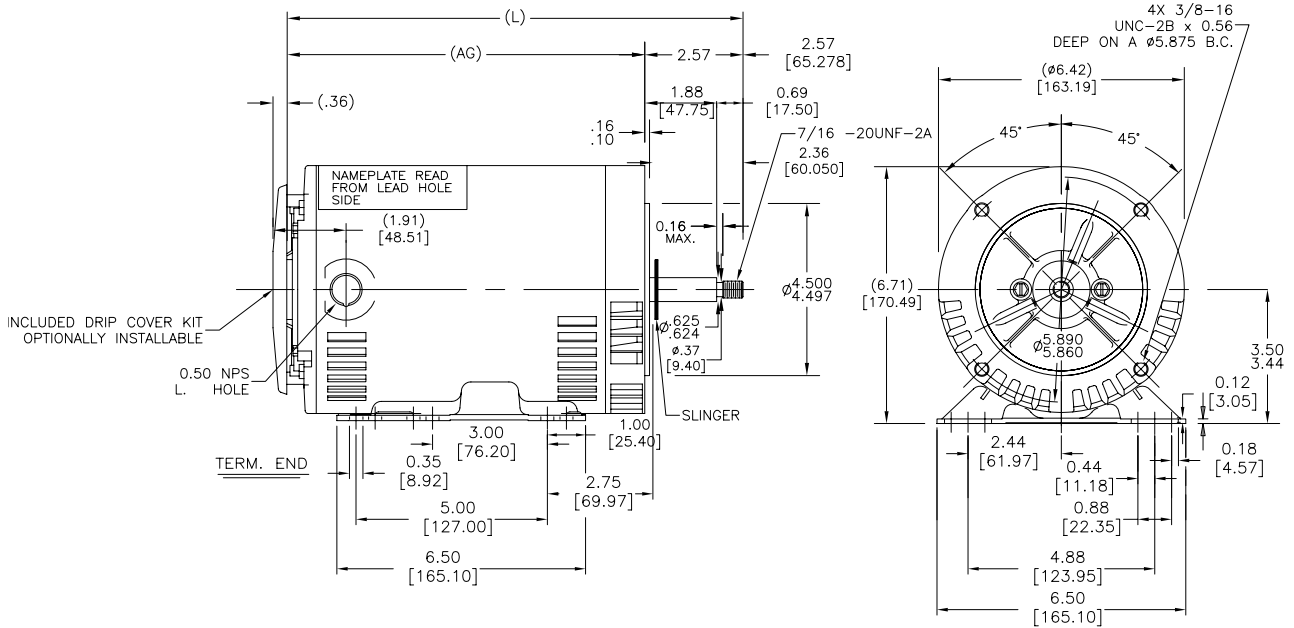
Jet Pump (Centrifugal), 3-Phase Drip-proof Motors

Dimensions

C-Face Footed (Rigid Base) 56J

in [mm]

Figure 2 – J052, J053 Dimensions



CAT #	FR.	L	AG
J052	"-65	10.93	8.36
J053	"-75	11.93	9.36

Motor Dimensions (inches)		
Part Number	L	AG
J052	10.93	8.36
J053	11.93	9.36