

Baldor Pump Motors

Baldor•Reliance is the leading supplier of Pump Motors to meet industrial and commercial applications. From industrial waste water to commercial pool pump motors Baldor•Reliance pump motors provide exceptional value by increasing reliability and reducing maintenance costs.

Baldor also leads the way in helping customers save money in pump applications by using energy efficient designs. Baldor•Reliance Super E Pump Motors provide NEMA Premium efficiency and are designed as standard to be inverter ready with wide variable torque speed ranges.

Over 525 Stock Motor Ratings

Today's line of Baldor Pump motors offers customers some from the highest levels of efficiencies, in ratings from fractional to 15,000 horsepower. Baldor has ratings available immediately from stock, with non-stock motors with the industry's shortest load times.

The Right Pump Motor for your Application

Whether it's a premium efficient pump motor for industrial waste water, sewage treatment facility or processing applications moving fluids in harsh conditions Baldor offers customers a variety of choices. Baldor•Reliance also offers pump motors designed for hazardous area locations common in the petroleum refining, chemical, processing and water treatment.

Baldor•Reliance Close-Coupled & Jet Pump motors are available in a wide variety of construction enclosures from industrial steel band open designs to harsh applications requiring totally enclosed cast iron design. Various mounting provisions from JM, JP and Westcoast are available as stock and custom. Motor construction can be tailored for specific applications and industries such as food processing, washdown applications or explosion proof enclosures for pumps in hazardous areas.

Baldor•Reliance solid shaft Vertical P-Base are the perfect power mates for centrifugal pumps, sump pumps, turbine pumps, in-line process pumps, fans, aerators, mixers, autoclaves, cooling towers and similar applications in industrial environments. These motors are available in a variety of enclosures and thrust values to suit your application. All frames have cast iron construction and premium features to protect motor components from chemicals, corrosion and abrasives, extending motor life and improving performance. Baldor•Reliance NEMA LP and VP motors are designed to meet the American Petroleum Institute Standard 610.

Whether your application is under water or has the potential to be underwater Baldor•Reliance has a motor for you. Baldor offers submersible motors serving both municipal and industrial waste water markets for both wet and dry pit applications. Submersible motors are suitable for hazardous and nonhazardous applications on both sine wave and inverter power. Baldor•Reliance custom immersible motors are designed for use in nonhazardous dry pit applications where the possibility of flooding exists. Baldor•Reliance Immersible motors are the right choice for an application where the features of a submersible



A Baldor Super-E motor and Inverter Control provide premium energy efficiency and improved process control to a municipal water treatment facility.

motor would not be fully utilized. Immersible motors save on installation cost by eliminating support structure and shaft extensions typically required to mount a pump motor above the high water level of the pit. They also reduce maintenance costs for replacing motors that cannot operate under water.

Leadership in Premium Efficiency

Called a "key breakthrough" by the Consortium for Energy Efficiency, the CEE in 1998 recognized Baldor's Super-E as the first premium efficient motor line to meet their stringent efficiency criteria, citing "For the first time, one manufacturer will carry all qualifying products."

Minimum Efficiency Performance Standards (MEPS) for electric motors are becoming commonplace throughout the world. The first of these was the Energy Policy Act of 1992 (EPA) that mandated efficiency levels for 1-200 Hp general purpose motors for sale in the U.S. after October 1997. The Energy Independence and Security Act of 2007 (EISA) builds upon EPA and raises the efficiency level for these motors to NEMA Premium® efficiency and adds other configuration and 201-500 Hp ratings for MEPS compliance. Baldor•Reliance Super-E motors manufactured today meet or exceed EISA requirements.

As countries and regions across the world establish minimum efficiency levels for motors, more companies are turning to the Baldor•Reliance Super-E. This includes plant and processing applications, as well as OEM products for shipment overseas. Super-E motors meet or exceed the efficiency levels defined by The Energy Independence & Security Act of 2007 (EISA) in the U.S., NRC in Canada, and IEC 60034-30 IE3 level in Europe. Super-E motors meet or exceed NEMA Premium® efficiencies.

A wide selection of premium efficient motors, available from stock, manufactured and sold by a company committed to building better products for industries worldwide. No wonder, since the 1920s, Baldor•Reliance is recognized as the leader in energy efficient industrial motors and drives.



Pump Motor Construction

Our pump line of motors includes single or three phase jet pump motors, square flange motors, close-coupled pump motors, and P-Base vertical solid shaft pump motors. The motors are stocked in totally enclosed fan cooled, open drip proof, and many explosion proof ratings. Applications for these run the gamut from swimming pool pumps to medium and high thrust in-line pumps used in water treatment plants. Horse powers range in size from 1/3 through 75 HP.

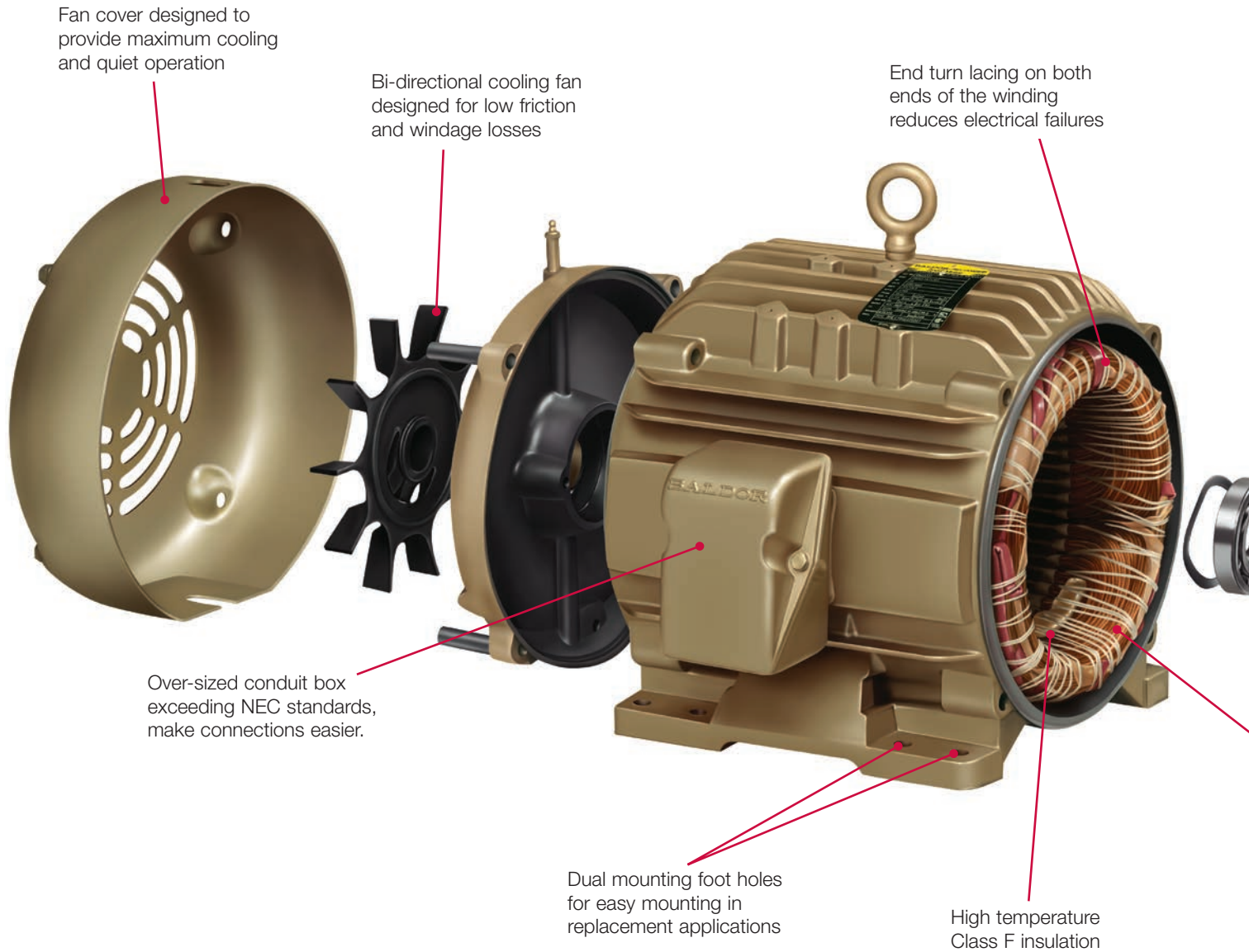
The chart below lists standard features ("S") of Baldor's single and three phase pump motors. Frame ranges indicate where certain features are standard in stock products. Optional ("O") indicates additional features available on custom motors, or through Baldor's Mod-Express.

Single and Three Phase Pump Motor Family			
Electrical Features	Jet Pump	Close Coupled JM/JP	Vertical P Base Solid Shaft
Class F insulation with B rise	O	O	S
1.15 Service factor or greater	S	S	S
200° C Inverter spike resistant insulation system	S	S	S
Phase insulation		S	S
Corona inception testing - meets NEMA Part 31.4.4.2		S	S
Varnish dip & bake with 100% solids	S	S	S
Ground Terminal inside main conduit box	S	S	S
Mechanical Features			
NEMA Frame sizes	56	143 - 326	182 - 449
UL Component Recognized and CSA Approved	S	S	S
Steel Band Frame	S	S 182 – 365 ODP S 182 – 215 TEFC	
Cast iron frame		S 254 – 365 TEFC	S
Conduit box rotatable 90° increments		S 254 - 365	S
Die cast aluminum conduit box	S	S	S - ODP
Cast iron conduit box		O	S – TEFC O - ODP
Threaded inlet hole in conduit box	O	O	S
Neoprene conduit box lid gasket & lead separator gasket		O	S
Seal endplate to frame joints	O	O	S
Hardware - zinc plated	S	S	S
Motor unfiltered vibration at rated voltage and frequency <0.15 in/sec peak velocity	S	S	
Motor unfiltered vibration at rated voltage and frequency <0.08 in/sec peak velocity	O	O	S
Exxon Polyrex EM™ polyurea grease	S	S	S
Grease inlet with grease fitting	O	S	S
Grease inlet with screw-in plug	O	O	O
Grease outlet with screw-in plug		O	O
Grease outlet with automatic relief fitting		S	S
Non-metallic external cooling fan	S	S	S
Castings coated with 2-part epoxy primer and epoxy finish coat	O	O	S
ASTM B117-90 96-hour salt spray test compliance		O	S
Laser etched aluminum nameplate with NEMA data	S	S	
Embossed Stainless steel nameplate with NEMA data	O	O	S
Stainless steel nameplate with bearing and grease data			S
UL 1081 Compliant via Mod Express M30A	O		
Limited Warranty	1 year	Std Eff 18 months Premium Eff 3 year	3 year

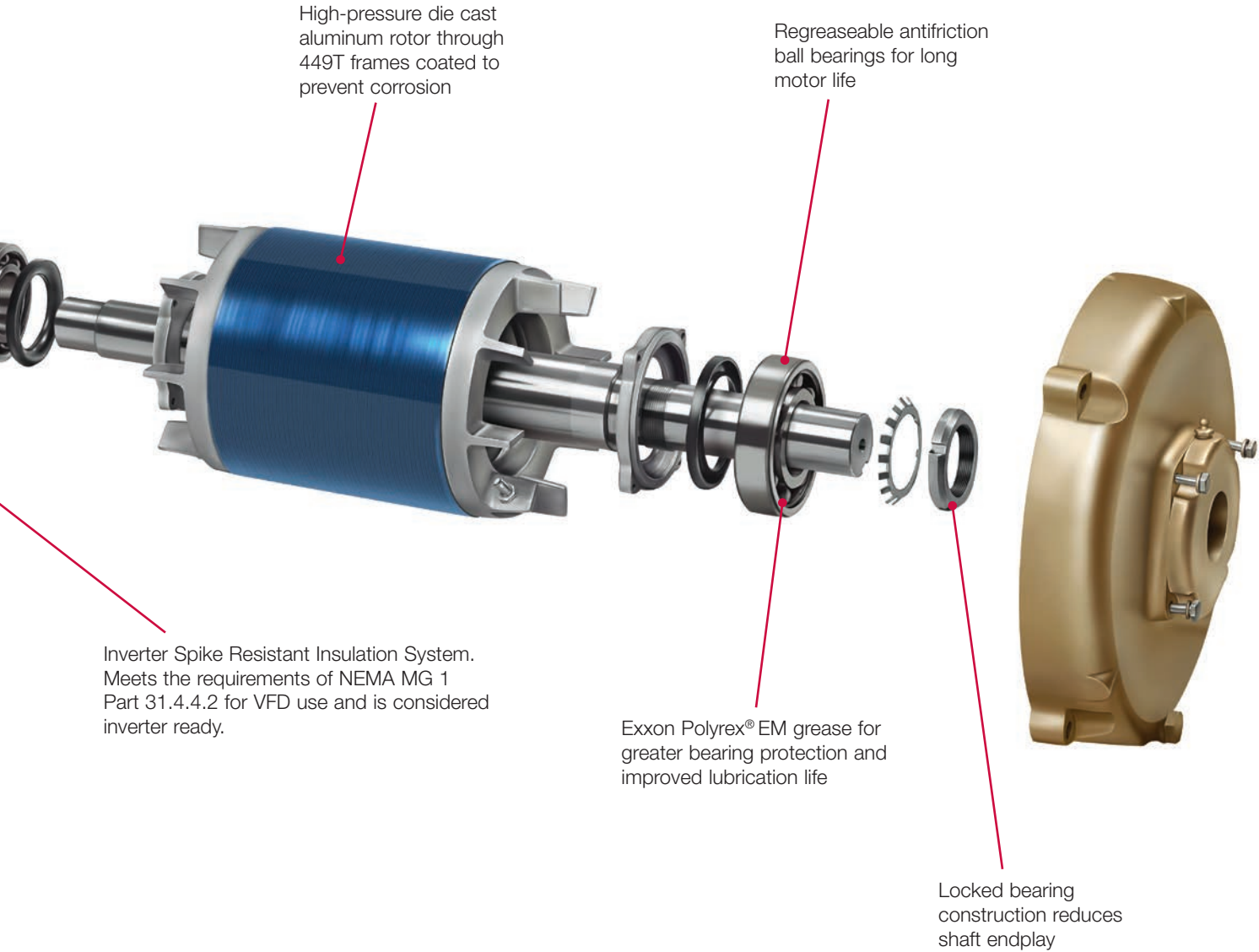
Note: Contact your Baldor District Office for certified data, dimensions and features of a specific motor.

Baldor•Reliance Pump Motors

Baldor•Reliance Pump Motors are available in Super-E®, NEMA Premium efficient designs. The same engineering and manufacturing knowledge and experience that go into every horizontal Baldor•Reliance Super-E motor also go into every Baldor•Reliance Close Coupled Pump, Jet Pump and Vertical P-Base Super-E motor produced.



All Baldor•Reliance Super-E® motors meet or exceed NEMA Premium® efficiency requirements per NEMA MG 1 table 12-12.



TEFC/ODP - Pump Motor Capabilities

Single and Three Phase

Single Phase - Typical Frame Size / Speed - RPM				
Hp	TEFC		ODP	
	3600	1800	3600	1800
1/3	56C/J	56C/J	56C/J	56C/J
1/2	56C/J	56C/J	56C/J	56C/J
3/4	56C/J	56C/J	56C/J	56C/J
1	56C/J	56C/J	56C/J	56C/J
1.5	56C/J	56C/J	56C/J	56C/J
2	56C/J	56C/J	56C/J	56C/J
3	56C/J or 182JM/JP	56C/J or 184JM/JP	56C/J or 182JM/JP	56C/J or 184JM/JP
5	184JM/JP	184JM/JP or 213JM/JP	184JM/JP	184JM/JP or 213JM/JP
7.5	213JM/JP	215JM/JP	213JM/JP	215JM/JP
10	215JM/JP	215JM/JP	215JM/JP	215JM/JP

Three Phase - Typical Frame Size / Speed - RPM				
Hp	TEFC		ODP	
	3600	1800	3600	1800
1/3	56C/J	56C/J	56C/J	56C/J
1/2	56C/J	56C/J	56C/J	56C/J
3/4	56C/J	56C/J	56C/J	56C/J
1	56C/J or 143JM/JP	56C/J or 143JM/JP	56C/J or 143JM/JP	56C/J or 143JM/JP
1.5	56C/J or 143JM/JP	56C/J or 145JM/JP	56C/J or 143JM/JP	56C/J or 145JM/JP
2	56C/J or 145JM/JP	56C/J or 145JM/JP	56C/J or 145JM/JP	56C/J or 145JM/JP
3	56C/J, 145JM/JP or 182JM/JP/HP/LP	56C/J or 182JM/JP/HP/LP	56C/J or 145JM/JP	56C/J or 182JM/JP/HP/LP
5	184JM/JP/HP/LP	184JM/JP/HP/LP	182JM/JP/HP/LP	184JM/JP/HP/LP
7.5	184JM/JP or 213JM/JP/HP/LP/VP	213JM/JP/HP/LP/VP	184JM/JP/HP/LP	213JM/JP/HP/LP/VP
10	215JM/JP/HP/LP/VP	215JM/JP/HP/LP/VP	213JM/JP/HP/LP/VP	215JM/JP/HP/LP/VP
15	215JM/JP or 254JM/JP/HP/LP/VP	254JM/JP/HP/LP/VP	215JM/JP/HP/LP/VP	254JM/JP/HP/LP/VP
20	256JM/JP/HP/LP/VP	256JM/JP/HP/LP/VP	254JM/JP/HP/LP/VP	256JM/JP/HP/LP/VP
25	284JM/JP/HP/LP/VP	284JM/JP/HP/LP/VP	256JM/JP/HP/LP/VP	284JM/JP/HP/LP/VP
30	286JM/JP/HP/LP/VP	286JM/JP/HP/LP/VP	284JM/JP/HP/LP/VP	286JM/JP/HP/LP/VP
40	324JM/JP/HP/LP/VP	324JM/JP/HP/LP/VP	286JM/JP/HP/LP/VP	324JM/JP/HP/LP/VP
50	326JM/JP/HP/LP/VP	326JM/JP/HP/LP/VP	324JM/JP/HP/LP/VP	326JM/JP/HP/LP/VP
60	364JP/HP/LP/VP	364JP/HP/LP/VP	326JM/JP/HP/LP/VP	364JP/HP
75	365JP/HP/LP/VP	365JP/HP/LP/VP	364JP/HP	365JP/HP
100	405HP/LP/VP	405HP/LP/VP	365JP/HP	404HP
125	444HP/LP/VP	444HP/LP/VP	404HP	405HP
150	445HP/LP/VP	445HP/LP/VP	405HP	444HP
200	447HP/LP/VP	447HP/LP/VP	444HP	445HP
250	449HP/LP/VP	449HP/LP/VP	445HP	447HP
300	449HP/LP/VP	449HP/LP/VP	447HP	449HP
350	449HP/LP/VP	449HP/LP/VP	449HP	449HP
400	449HP/LP/VP	449HP/LP/VP	449HP	449HP
450	-	-	449HP	449HP

NOTE: West Coast pump mountings are available in 143 thru 286 frames.

Motors listed with catalog numbers in this brochure are available from stock. Contact Baldor for lead times on non-stock motors.

Performance data is subject to change. Drawings shown are for reference only. Please contact Baldor for current performance data or a detailed drawing on the specific motor you require. Data and drawings may be available from our website at www.baldor.com.

Jet Pump Motors Single Phase - ODP

Jet Pump motors are designed for Residential and industrial pump applications. Construction features include a sturdy steel frame, cast aluminum end plates with steel bearing seat inserts for mechanical reliability. Opposite drive end shaft is slotted for convenience.



Open Drip Proof, 115/230 Volt, Single Phase, 1/3 - 3 HP

Hp	kW	RPM	Frame	Catalog Number	Amps @ High V		Full Load Torque Lb. Ft.	Efficiency %			Power Factor %			Bearings		Volt Code	S.F.	"C" Dim.	Conn. Diag. No.	Notes
					Full Load	Locked Rotor		1/2	3/4	Full Load	1/2	3/4	Full Load	DE	ODE					
56J, Foot Mounted																				
1/3	0.25	3450	56J	CJL1205A	3.1	14.5	0.5	40.6	49.5	58	48	56	61	6203	6203	B	1.75	11.91	CD0307	-
1/3	0.25	1725	56J	CJL1301A	3	13	1	49	56	60	41	51	60	6203	6203	B	1.35	11.89	CD0307	-
1/2	0.37	3450	56J	CJL1303A	3.7	20	0.75	52	61	66	50	60	67	6203	6203	B	1.60	12.51	CD0307	-
1/2	0.37	1725	56J	CJL1304A	4.2	18	1.5	52	60	62	42	53	62	6203	6203	B	1.25	12.14	CD0307	30
3/4	0.56	3450	56J	CJL1306A	5.5	31.2	1.15	57.6	65.5	69	52	64	68	6203	6203	B	1.50	13.39	CD0307	-
3/4	0.56	1725	56J	CJL1307A	5.4	16	2.25	52	59	63	45	55	64	6205	6203	B	1.25	12.25	CD0307	-
1	0.75	3450	56J	CJL1309A	7	46	1.5	60.7	66.5	65	45	58	65	6203	6203	B	1.40	13.89	CD0203	-
1.5	1.1	3450	56J	CJL1313A	6.5	43.5	2.3	76.2	77.7	78.5	90	93	95	6203	6203	B	1.30	13.89	CD0769	-
2	1.5	3450	56J	CJL1317A	13	79	3	60	66	70	53	65	69	6205	6203	B	1.20	13.25	CD0307	30
56J, Footless																				
1/3	0.25	3450	56J	JL1205A	3.1	14.5	0.5	40.6	49.5	58	48	56	61	6203	6203	B	1.75	11.89	CD0203	-
1/3	0.25	1725	56J	JL1301A	3	13	1	49	56	60	41	51	60	6203	6203	B	1.35	11.89	CD0203	30
1/2	0.37	3450	56J	JL1303A	3.7	20	0.75	52	61	66	50	60	67	6203	6203	B	1.60	12.51	CD0307	-
1/2	0.37	1725	56J	JL1304A	4.2	18	1.5	52	60	62	42	53	62	6203	6203	B	1.25	12.14	CD0203	30
3/4	0.56	3450	56J	JL1306A	5.5	31.2	1.15	57.6	65.5	69	52	64	68	6203	6203	B	1.50	13.39	CD0307	-
3/4	0.56	1725	56J	JL1307A	5.1	31	2.25	59.1	62.7	68	49	63	68	6203	6203	B	1.25	13.89	CD0203	30
1	0.75	3450	56J	JL1309A	7	46	1.5	60.7	66.5	65	45	58	65	6203	6203	B	1.40	13.89	CD0449	30
1.5	1.1	3450	56J	JL1313A	6.5	43.5	2.3	76.2	77.7	78.5	90	93	95	6203	6203	B	1.30	13.89	CD0769	-
2	1.5	3450	56J	JL1317A	13	79	3	60	66	70	53	65	69	6205	6203	B	1.20	13.25	CD0307	30
3	2.2	3450	56J	JL1323A	13	108	4.5	78.5	82	82.5	85	90	93	6205	6203	C	1.15	14.13	CD0661	30
56C, Footless																				
1/3	0.25	3450	56C	VL1205A	3.5	18.5	0.5	40.1	48.9	54	43	50	56	6203	6203	B	1.75	11.32	CD0052	-
1/3	0.25	1725	56C	VL1301A	3	13	1	49	56	60	41	51	60	6203	6203	B	1.35	11.32	CD0052	30
1/2	0.37	3450	56C	VL1303A	3.7	20	0.75	52	61	66	50	60	67	6203	6203	B	1.60	12	CD0052	-
1/2	0.37	1725	56C	VL1304A	4.2	18	1.5	52	60	62	42	53	62	6203	6203	B	1.25	11.57	CD0052	30
3/4	0.56	3450	56C	VL1306A	5.5	31.2	1.15	57.6	65.5	69	52	64	68	6203	6203	B	1.50	12.88	CD0052	-
3/4	0.56	1725	56C	VL1307A	5.4	16	2.25	52	59	63	45	55	64	6205	6203	B	1.25	11.75	CD0052	-
1	0.75	3450	56C	VL1309A	7	46	1.5	60.7	66.5	65	45	58	65	6203	6203	B	1.40	13.4	CD0052	-
1	0.75	1725	56C	VL1318A	6.2	39	3	64.5	67	67	57	70	68	6205	6203	B	1.00	12.75	CD0052	-
1.5	1.1	3450	56C	VL1313A	6.5	43.5	2.3	76.2	77.7	78.5	90	93	95	6203	6203	B	1.30	13.01	CD0703	-
2	1.5	3450	56C	VL1317A	13	79	3	60	66	70	53	65	69	6205	6203	B	1.20	12.75	CD0052	30
3	2.2	3450	56C	VL1323A	13	108	4.5	78.5	82	82.5	85	90	93	6205	6203	C	1.15	13.63	CD0225	30

NOTE: Volt Code: B = 115/230V, 60Hz; C = 230V, 60Hz; D=208-230V, 60Hz

30 Usable at 208 Volts

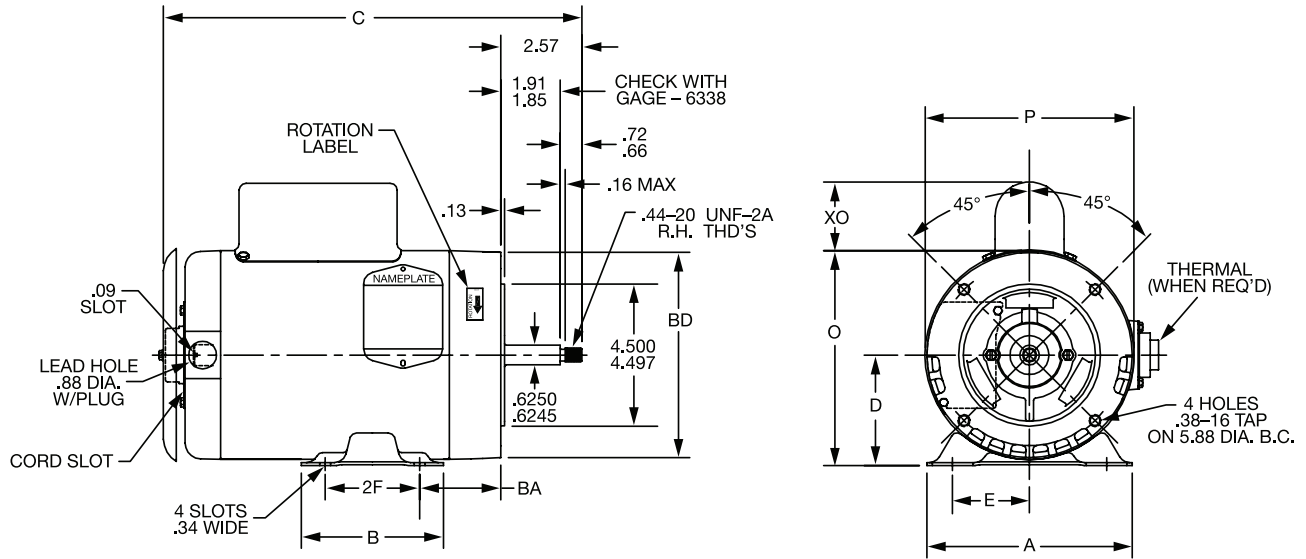
All threaded shaft single phase motors are connected single rotation – CCW when viewing drive end.

See page 63 for connection diagrams. See page 43 for dimensions.

Efficiencies shown are nominal. Data subject to change without notice. Contact Baldor for certified data.

Dimensions

Jet Pump Motors Single Phase - ODP with Drip Cover NEMA 56J & 56C



56J, Foot Mounted

NEMA Frame	A	B	D	E	2F	BA	O	P	BD	XO
CJL1205A	6.56	4.25	3.50	2.44	3.00	2.57	6.44	5.68	5.87	1.41
CJL1301A	6.50	4.00	3.50	2.44	3.00	2.57	6.34	5.68	5.87	1.50
CJL1303A	6.50	4.00	3.50	2.44	3.00	2.57	6.34	5.68	5.87	1.50
CJL1304A	6.53	4.00	3.50	2.44	3.00	2.57	6.35	5.68	5.87	1.50
CJL1306A	6.50	4.00	3.50	2.44	3.00	2.57	6.34	5.68	5.87	1.50
CJL1307A	6.50	4.50	3.50	2.44	3.00	2.57	6.81	6.62	6.50	2.18
CJL1309A	6.50	4.00	3.50	2.44	3.00	2.57	6.34	5.68	5.87	2.18
CJL1313A	6.56	4.25	3.50	2.44	3.00	2.57	6.34	5.68	5.87	2.25
CJL1317A	6.50	4.32	3.50	2.44	3.00	2.57	6.81	6.62	6.50	2.18

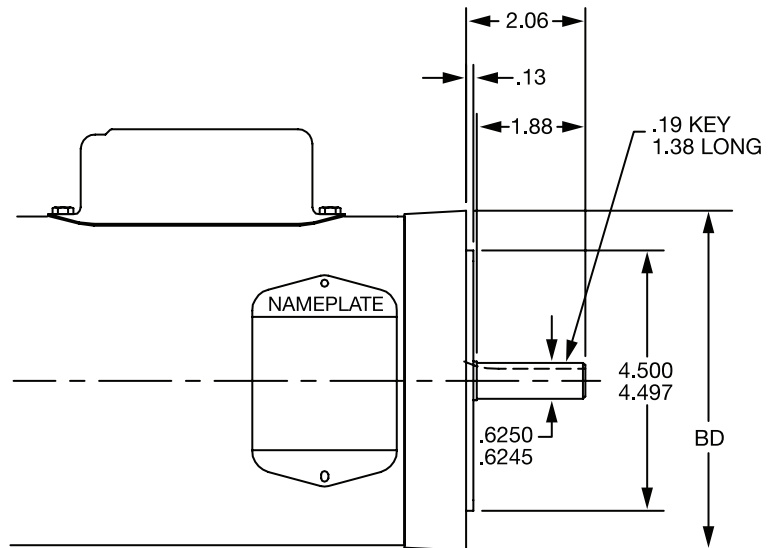
56J, Footless

NEMA Frame	P	BD	XO
JL1205A	5.68	5.87	1.51
JL1301A	5.68	5.87	1.51
JL1303A	5.68	5.87	1.51
JL1304A	5.68	5.87	1.51
JL1306A	5.68	5.87	1.51
JL1307A	5.68	5.87	2.18
JL1309A	5.68	5.87	2.18
JL1313A	5.68	5.87	2.25
JL1317A	6.62	6.50	2.18

56C, Footless

NEMA Frame	P	BD	XO
VL1205A	5.68	5.87	1.51
VL1301A	5.68	5.87	1.51
VL1303A	5.68	5.87	1.51
VL1304A	5.68	5.87	1.51
VL1306A	5.68	5.87	1.51
VL1307A	6.62	6.50	2.18
VL1309A	5.68	5.87	2.18
VL1318A	6.62	6.50	2.18
VL1313A	5.68	5.81	2.25
VL1317A	6.62	6.50	2.18
VL1323A	6.62	6.50	2.19

NEMA 56C Shaft Dimensions



NOTE: Dimension for reference only. Contact Baldor or www.baldor.com for a detailed dimension drawing for your specific catalog number.