

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>		

Powerwash SXT Washdown Duty, Single-Phase, All Stainless Steel, Totally Enclosed Motors

C-Face Footed (Rigid Base)



Features

- Encapsulated electronic starting switch is impervious to moisture.
- Capacitor start induction run design for high starting torque unless otherwise noted.
- 1.15 Service Factor on sinewave.
- Double-sealed ball bearings.
- 303 stainless steel shaft with spring-loaded contact seals in each end.
- 300 Series stainless steel external construction: frame, endshields, conduit box, fan guard, mounting base and hardware for superior corrosion resistance.
- Internal corrosion-resistant coatings on rotor and heavy polyester varnish on the stator.
- 100% paint-free constructions.
- One-way condensation drains in each endshield and conduit box for all angle mounting.
- Nitrile Buna-N gaskets and seals on conduit box, through bolts and endshields.
- Nameplate information laser etched on frame.
- UL Recognized, CSA Certified and CE Mark.
- IP55 Rating
- Max Guard Insulation System

Applications

- Typical uses include: machine tools, conveyors, packaging machines, batching machines, food and beverage equipment, pumps, and fans

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 – Powerwash SXT Washdown Single Phase Stainless Steel Motors

Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	Weight (lb)*
N341	\$405.00	1/2	1800	115/230	TEFC	B	56C	56C17WD5327 A	29
N343	\$466.00	3/4						56C17WD5328 A	36
N345	\$480.00	1						56C17WD5329 A	42
N347	\$487.00	1-1/2						56C17WD5330 A	53
N349	\$540.00	2					145TC	145TBWD5335 A	62
N348	\$552.00	2	145TBWD5305	49					
N340	\$369.00	1/2	3600			56C	56C34WD5301 A	26	
N342	\$402.00	3/4					56C34WD5302 A	30	
N346	\$491.00	1-1/2					56C34WD5304 A	43	

* 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.

Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product. Warranty service can be arranged through numerous Marathon Electric service centers. See list of service centers on our website at www.automationdirect.com.

Powerwash SXT Washdown Duty, Single-Phase, All Stainless Steel, Totally Enclosed Motors



C-Face Footed (Rigid Base)

Performance Data

Performance Data - Single-Phase 56C (230V/60Hz data except as indicated) Powerwash SXT Washdown Duty All Stainless Steel, Totally Enclosed Motors											
Part Number	HP	F.L. RPM	Current @ 115V/230V (Amps)			Torque (lb-ft)			F.L. Efficiency (%)	F.L. Power Factor	Rotor Inertia (lb-ft ²)
			230 Volt No Load Amps	Full Load Amps (115/230V)	Locked Rotor Amps (115/230V)	Full Load	Locked Rotor	Break-down			
N341	1/2	1725	3.5	8.2 / 4.1	NA* / 20	1.5	5	4.04	61	65	0.058
N343	3/4		4	9.8 / 4.9	NA* / 28.1	2.25	6.42	5.94	72	68	0.081
N345	1		4.9	13.6 / 6.8	NA* / 39	3	8.81	7.4	69	69	0.099
N347	1-1/2		5.1	15.8 / 7.9	116.8 / 58.4	4.5	15	12.7	75	75	N/A*
N349	2		4.3	16.4 / 8.2	115 / 57.5	6.0	14	14.1	74	98	N/A*
N340	1/2	3450	2.6	7.2 / 3.6	NA* / 18.4	0.75	2.56	4.08	65	71	0.058
N342	3/4		3	9.2 / 4.6	NA* / 24	1.125	2.34	2.03	72	74	0.058
N346	1-1/2		4.8	16.4 / 8.2	NA* / 52	2.31	6.5	5.31	73	79	0.058
N348	2		4.3	18.12 / 9.06	138 / 69	3.0	7.5	7.7	83	87	N/A*

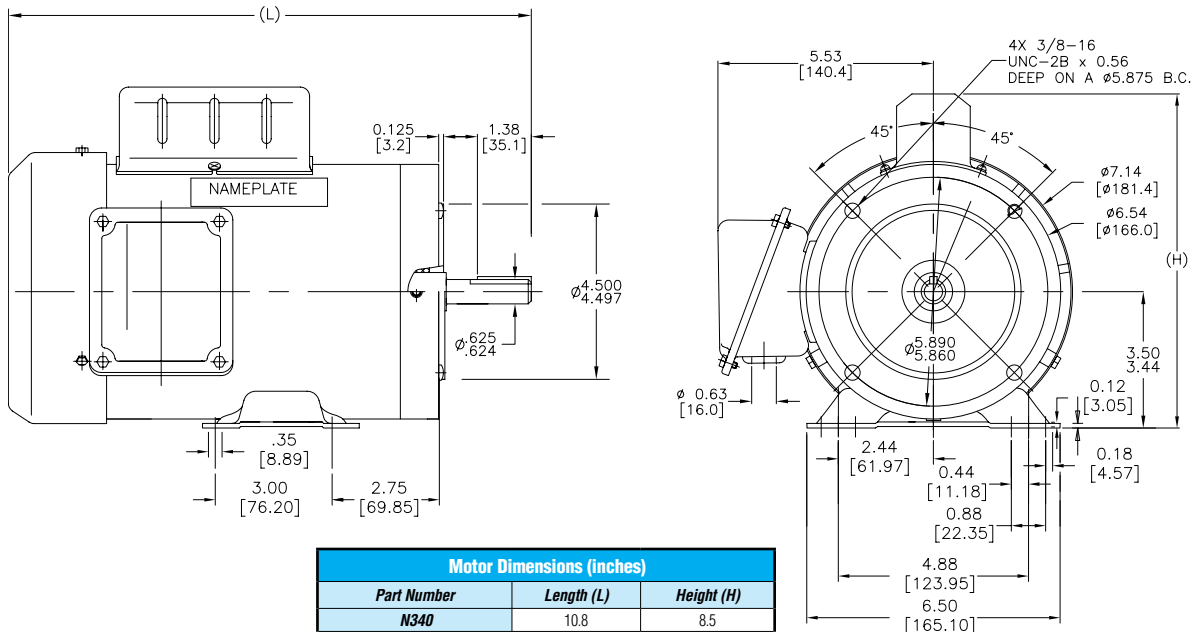
* Data not available from manufacturer

Dimensions

in [mm]

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

Figure 1 - N340-N346 Dimensions



Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

3-Phase, C-Face, Footed (Rigid Base)

Features

- Suitable for use on VFD 10:1 Variable torque, 10:1 (TEFC) or 1000:1 (TENV) Constant Torque
- MAX GUARD® Class F insulation system
- 1.15 Service Factor on sinewave, 1.0 Service Factor on VFD power
- Double-sealed ball bearings
- 303 stainless steel shaft with spring-loaded contact seals in each end (drive end only on TENV)
- 300 Series Stainless steel external construction: frame, endshields, conduit box, mounting base and hardware for superior corrosion resistance
- Internal corrosion resistant coatings on rotor and heavy polyester varnish on the stator
- 100% paint-free construction
- One-way condensation drains in each endshield and conduit box for all angle mounting
- Nitrile Buna-N gaskets and seals on conduit box, through bolts and endshields
- Rated 60/50 Hz, 190/380 volt at next lower horsepower
- Nameplate information laser etched on frame
- UL Recognized, CSA Certified and CE Mark
- IP55 Rating



Applications

- Replaces 90 volt and 180 volt PMDC motors (when used with AC variable frequency drives)
- Typical uses include: machine tools, conveyors, packaging machines, batching machines, food and beverage equipment, pumps and fans.

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 – Powerwash SXT Washdown Duty 3-Phase All Stainless Steel Totally Enclosed Motors											
Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	F.L. Amps	Weight (lb)*	Footnotes
N499	\$434.00	1	1200	208-230/460 - 190/380	TEFC	B	145TC	145TTWD6077	3.8-3.8/1.9 - 3.4/1.7	40	
N411	\$337.00	1/2	1800		TEFC		56C	56T17VD5328 A	1.5-1.6/0.8 - 1.6/0.8	23.8	
N412	\$373.00	3/4						56C	56T17VD5327 A	2.4-2.3/1.15 - 2.0/1.0	31
N414A	\$489.00	1		143TC					143TTWD6026 AA	3.0/1.5 - 3.0/1.5	44.5
N415A	\$473.00	1-1/2			56HC		56T17WD15329 A	4.4/2.2 - 3.8/1.9	46	5	
N417A	\$453.00	2		56HC			56T17WD15328 A	5.4/2.7 - 5.0/2.5	52.6	5	
N418A	\$605.00	2			145TC		145TTWD6029 AA	5.4/2.7 - 5.0/2.5	53.1		
N450	\$324.00	1/3	3600	TEFC	56C		56T34VD5301 A	1.1-1.0/0.5 - 0.9/0.45	27		
N451	\$334.00	1/2					56C	56T34VD5302 A	1.6-1.5/0.75 - 1.3/0.65	28	
N452	\$362.00	3/4						56C	56T34VD5303	2.2-2.0/1.0 - 1.7/0.85	30
N455A	\$498.00	1-1/2		56HC	56T34WD15302 A		3.8/1.9 - 3.0/1.5		42	5	
N456A	\$513.00	1-1/2			143TC		143TTWD6002 AA	4.2-4.4/2.2 - 3.0/1.5	42.5		
N457A	\$559.00	2		208-230/460 - 190/380		TEFC	56HC	56T34WD15303 A	5.6-5.0/2.5 - 4.6/2.3	44.5	5
N458A	\$615.00	2	145TC		145TTWD6001 AA			5.6-5.0/2.5 - 5.2/2.6	45		
* 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: 5 = 56H, 143T, and 145T Combination Base with 12 mounting holes											
Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product. Warranty service can be arranged through numerous Marathon Electric service centers. See list of service centers on our website at www.automationdirect.com.											

Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

Three Phase, Footed (Rigid Base)

Performance Data

Performance Data – Powerwash SXT Washdown Duty 3-Phase All Stainless Steel 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)	Footnotes
N499	1	1150	115	1.9	1.3	4.5	17.4		4000	82.5	60	N/A**	10:1 Variable Torque
N411	1/2	1740	174	0.8	0.6	1.15	5.56		5400	81.5	68	N/A**	10:1 Variable Torque Nameplate footnote: Suitable at 208V at 1.0 S.F.
N412	3/4	1740	174	1.15	0.7	2.25	10.18			82.5	73	N/A**	
N414A	1	1750	175	1.5	1	2.99	15.83	3600		85.5	71.5	N/A**	
N415A	1-1/2	1750	175	2.2	1.3	4.513	21.05		4000	86.5	73.5	N/A**	
N417A	2	1750	175	2.7	1.4	5.981	25.44			86.5	80	N/A**	
N418A	2	1750	175	2.7	1.4	5.981	25.44			86.5	80	N/A**	
N450	1/3	3450	345	0.5	0.3	8.2	24			74	84.7	0.028	
N451	1/2	3450	345	0.75	0.3	12.2	38.7	5400	7200	77	83	0.03	
N452	3/4	3450	345	1.0	0.5	1.11	2.55			78.5	86	N/A**	
N455A	1-1/2	3510	351	1.9	0.8	2.238	9.81	2700	4000	84	88	N/A**	10:1 Variable Torque Nameplate footnote: Suitable at 208V at 1.0 S.F.
N456A	1-1/2	3510	351	1.9	0.8	2.238	9.81	5400	7200	84	88	N/A**	10:1 Variable Torque
N457A	2	3490	349	2.5	0.9	3.001	11.84	2700	4000	85.5	87.5	N/A**	10:1 Variable Torque
N458A	2	3450	345	2.5	0.9	3.001	11.84	2700	4000	85.5	87.5	N/A**	Nameplate footnote: NEMA Nom. Efficiency suitable for use at 230/460V only.

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

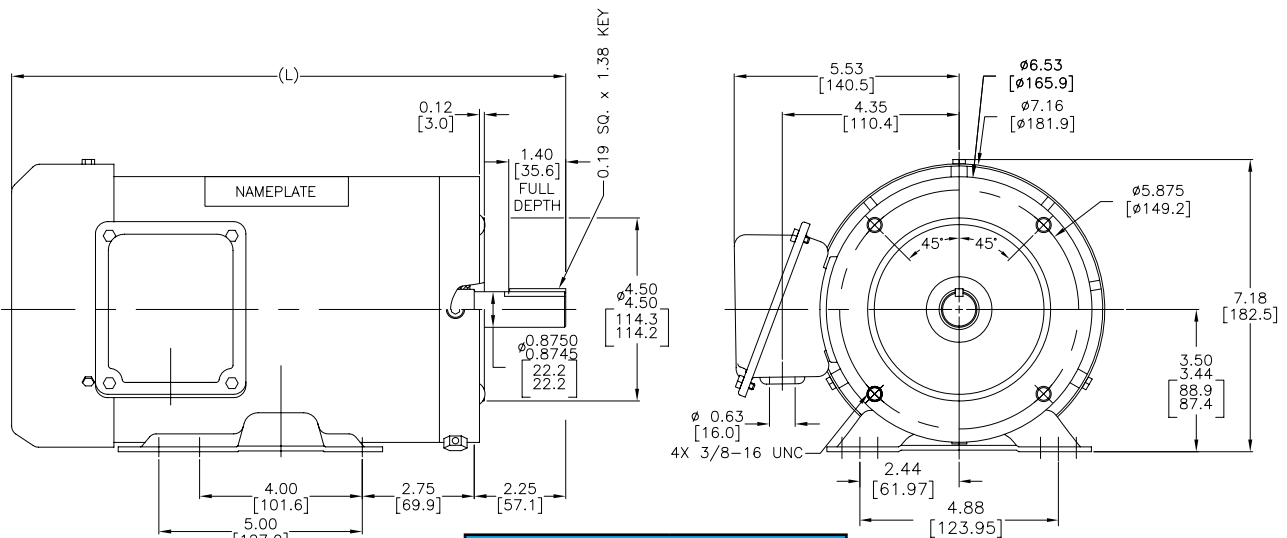
** Data not available from manufacturer

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

Dimensions

in [mm]

Figure 1 – N414A, N418A, N456A, N458A, N499 Dimensions



Motor Dimensions (inches)	
Part Number	Length (L)
N414A	13.9
N418A	14.3
N456A	13.7
N458A	13.7
N499	13.9

Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

Dimensions

Three Phase, Footed (Rigid Base)

in [mm]

Figure 2 – N411, N412, N450, N451, N452 Dimensions

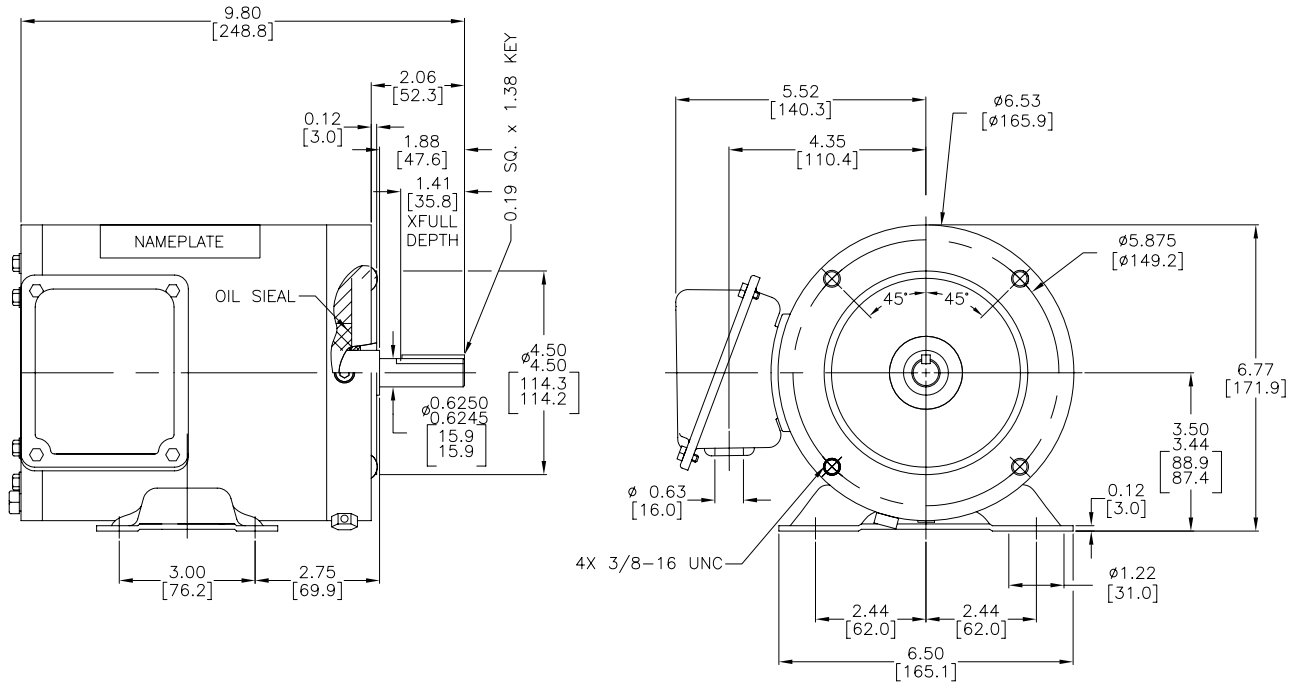
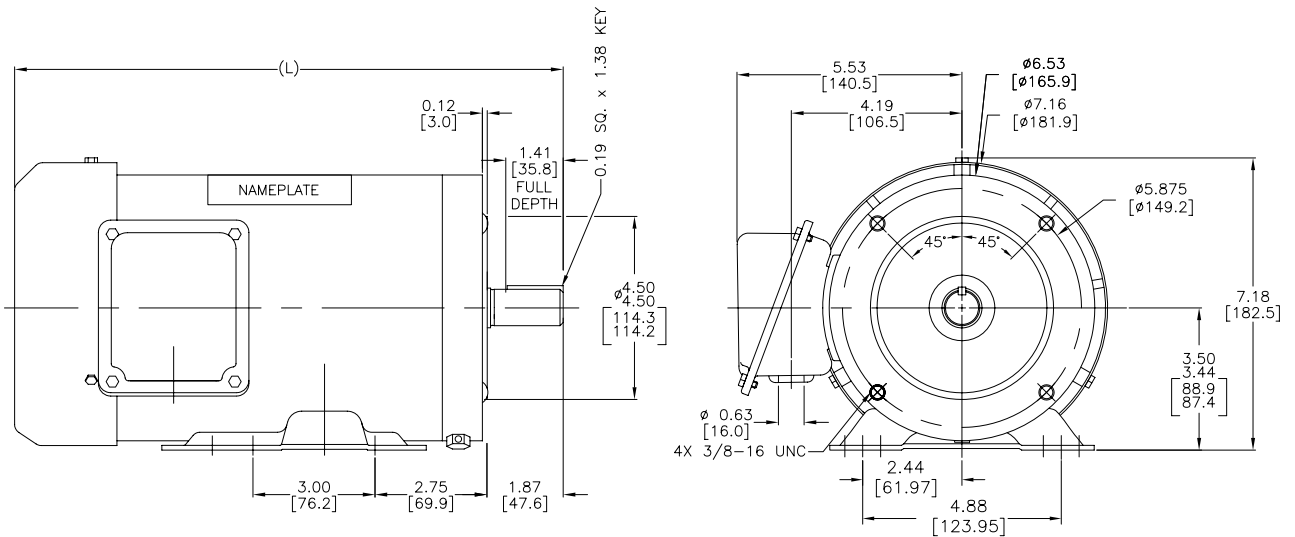


Figure 3 – N415A, N417A, N455A, N457A Dimensions



Motor Dimensions (inches)	
Part Number	Length (L)
N415A	13.6
N417A	14.0
N455A	13.6
N457A	13.6

Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

C-Face Footless



marathon
Motors

Features

- Suitable for use on VFD 10:1 Variable torque, 10:1 (TEFC) or 1000:1 (TENV) Constant Torque
- MAX GUARD® Class F insulation system
- 1.15 Service Factor on sinewave, 1.0 Service Factor on IGBT power
- Double-sealed ball bearings
- 303 stainless steel shaft with spring-loaded contact seals in each end (drive end only on TENV)
- 300 Series Stainless steel external construction: frame, endshields, conduit box, mounting base and hardware for superior corrosion resistance
- Internal corrosion resistant coatings on rotor and heavy polyester varnish on the stator
- 100% paint-free construction
- One-way condensation drains in each endshield and conduit box for all angle mounting
- Nitrile Buna-N gaskets and seals on conduit box, through bolts and endshields
- Rated 60/50 Hz, 190/380 volt at next lower horsepower
- Nameplate information laser etched on frame
- UL Recognized, CSA Certified and CE Mark
- IP55 Rating

Applications

- Replaces 90 volt and 180 volt PMDC motors (when used with AC variable frequency drives)
- Typical uses include: machine tools, conveyors, packaging machines, batching machines, food and beverage equipment, pumps and fans.

Motor Shipping Schedule *

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

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

Motor Specifications – Powerwash SXT Washdown Duty 3-Phase All Stainless Steel Totally Enclosed Motors

Part Number*	Price	HP	Base RPM	Volts	Encl.	NEMA Design	NEMA Frame	Model No.	F.L. Amps	Weight (lb)*	Footnotes
N430	\$320.00	1/3	1800	208-230/460 - 190/380	TENV	B	56C	56T17VD5329 AA	1.2-1.3/0.65 - 1.2/0.60	21.2	N
N431	\$330.00	1/2						56T17VD5330 A	1.5-1.6/0.80 - 1.6/0.80	23	N
N432	\$362.00	3/4						56T17VD5331 A	2.4-2.3/1.15 - 2.0/1.0	30.2	N
N433A	\$406.00	1						56T17WD15330 A	3.4-3.0/1.5 - 3.0/1.5	43.5	
N434B	\$469.00	1		230/460 - 190/380	TEFC		143TC	143TTWD6527 FR	3.4-3.0/1.5 - 3.0/1.5	44	
N436A	\$442.00	1-1/2					145TC	145TTWD6031 A	4.8-4.4/2.2 - 3.8/1.9	47	
N437A	\$496.00	2					56C	56T17WD15332 A	5.4/2.7 - 5.0/2.5	52	
N438B	\$535.00	2					145TC	145TTWD6528 A	5.8-5.4/2.7 - 5.0/2.5	52.6	

* 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: N = Totally Enclosed, Non-Ventilated

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Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

C-Face Footless

Performance Data

Performance Data – Powerwash SXT Washdown Duty 3-Phase All Stainless Steel 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)	Footnotes
N430	1/3	1740	N/A	0.65	0.5	16	72	N/A	N/A	78.5	63	N/A**	Line Start ONLY Recommended!
N431	1/2		1.74	0.8	0.6	24	89	2700	7000	81.5	68	N/A**	1000:1 Constant Torque Nameplate footnote: Suitable at 208V at 1.0 S.F.
N432	3/4		N/A	1.15	0.7	36	163	N/A	N/A	82.5	73	N/A**	Line Start ONLY Recommended!
N433A	1	1750	175	1.5	1.0	2.99	15.83	2700	4000	85.5	71.5	N/A**	10:1 Variable Torque Nameplate footnote: NEMA Nom. Efficiency, suitable for use at 230/460V only
N434B	1		N/A	1.5	2	2.99	15.83	N/A	N/A	85.5	71.5	N/A**	Line Start ONLY Recommended! Nameplate footnote: NEMA Nom. Efficiency, suitable for use at 230/460V only
N436A	1-1/2		175	2.2	1.3	4.513	21.05	2700	4000	86.5	73.5	N/A**	10:1 Variable Torque
N437A	2	3450	175	2.7	1.4	5.981	25.44	5400	4000	86.5	80	N/A**	10:1 Variable Torque Nameplate footnote: Suitable at 208V at 1.0 S.F.
N438B	2	1750	N/A	2.7	1.4	5.981	25.44	N/A	N/A	86.5	80	N/A**	Line Start ONLY Recommended! Nameplate footnote: NEMA Nom. Efficiency, suitable for use at 230/460V only

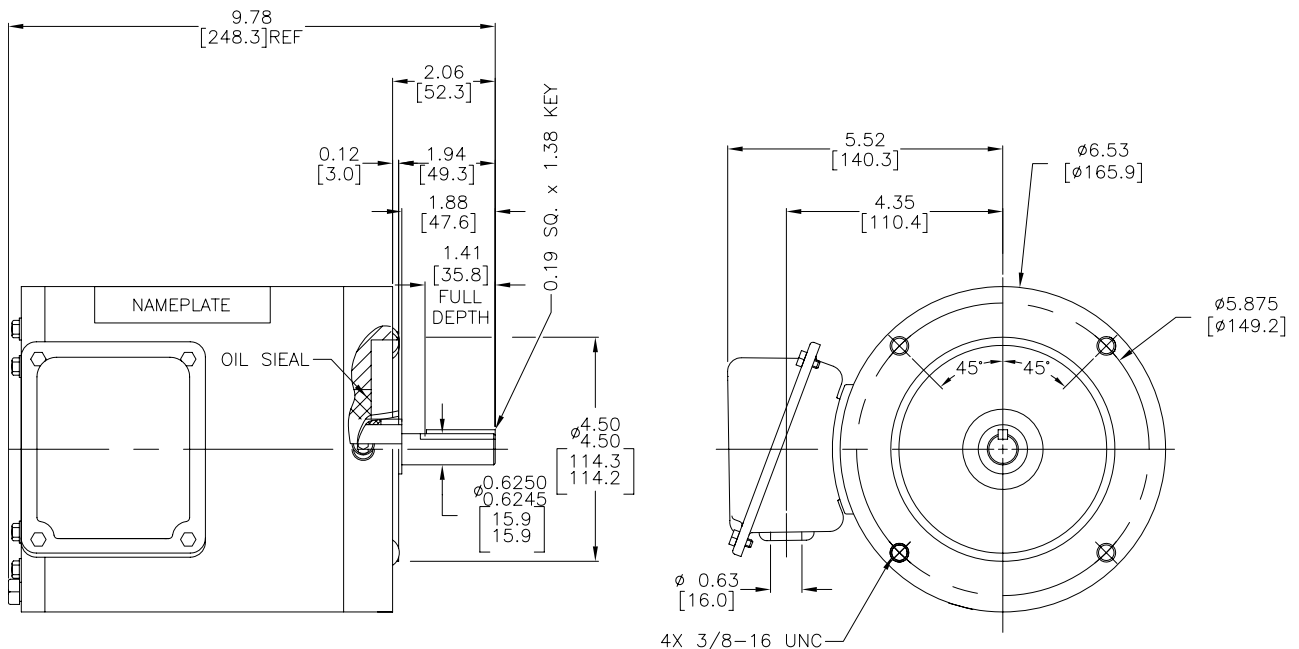
Notes: *Maximum Constant HP RPM is for direct-coupled loads.
**Data not available from manufacturer.

Dimensions

in [mm]

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

Figure 1 – N430-N432 Dimensions



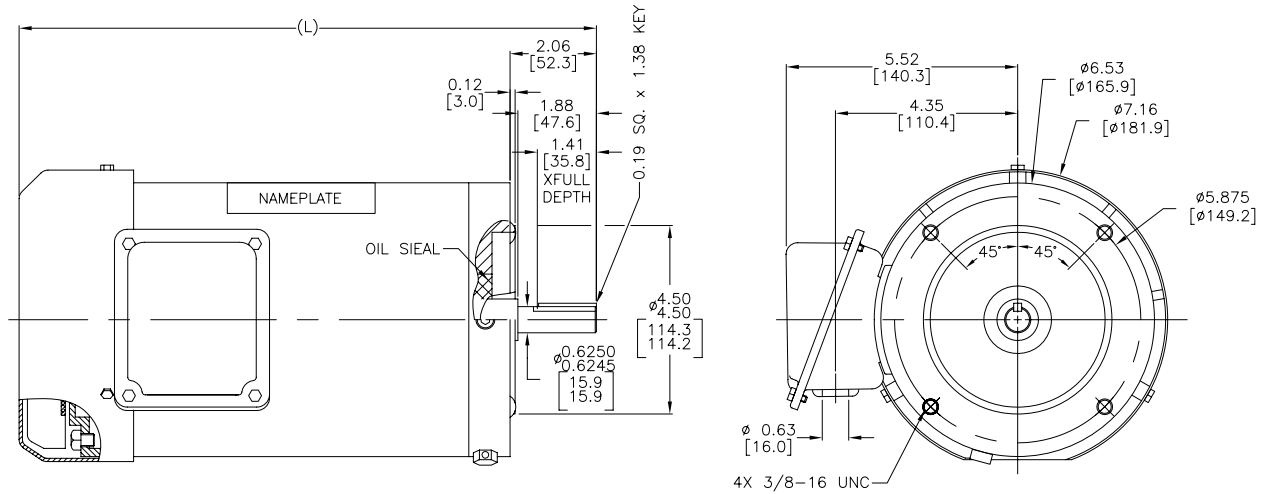
Powerwash SXT Washdown Duty, 3-Phase, All Stainless Steel, Totally Enclosed Motors

Dimensions

C-Face Footless

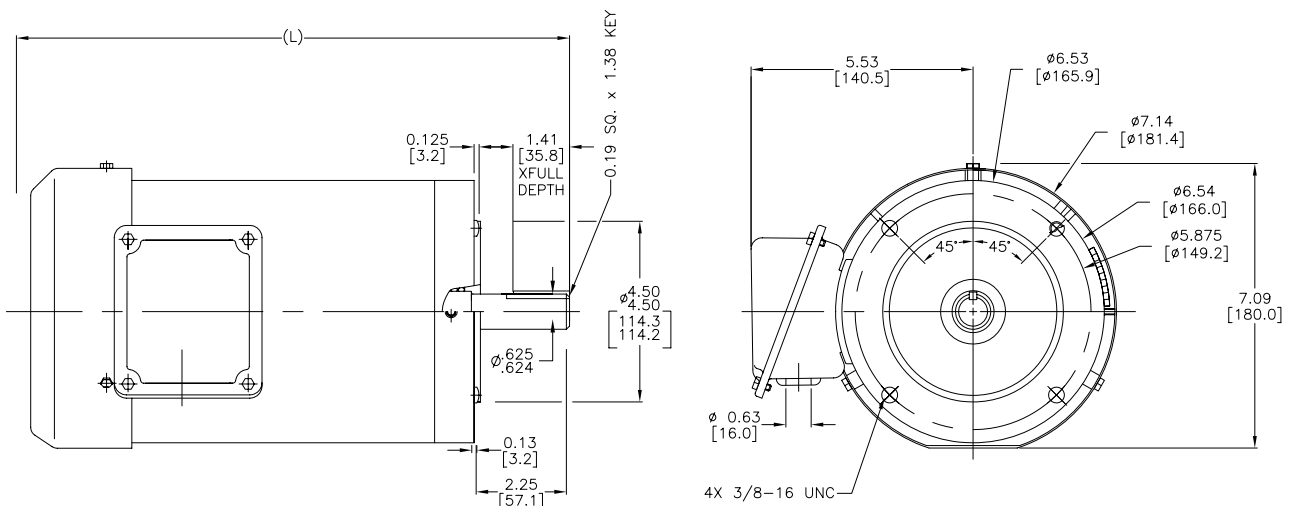
in [mm]

Figure 2 – N433A, N437A Dimensions



Motor Dimensions (inches)	
Part Number	Length (L)
N433A	132
N437A	140

Figure 3 – N434B, N436A, N438B Dimensions



Motor Dimensions (inches)	
Part Number	Length (L)
N434B	13.7
N436A	13.7
N438B	14.1