

# NEMA Premium® Efficiency XRI® Series Inverter Duty Motors



**marathon**  
Motors

## Features

- Meets or exceeds NEMA Premium efficiencies
- Inverter duty
- Suitable for use with ALS (across-the-line starting) or IGBT (AC drive)
- 10:1 variable torque and constant torque on VFD with 1.0 service factor
- 1.15 service factor on sinewave; 1.0 service factor on IGBT power
- Class F insulation
- Continuous duty at 40° C ambient
- Rolled steel construction with C-face rigid base mounting
- F3 conduit box location
- Utilizes ball bearings
- Electrically reversible
- UL Recognized, CSA Certified, and CE Mark
- Three year warranty (through Marathon Electric)

## Applications

Typical uses include gear reducers, pumps, machine tools, and other direct-coupled equipment installed in damp, dusty, or dirty environments where long life and ultra-high efficiency is desired.

### Motor Shipping Schedule

**Same or one day \***

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

### 208-230/460V Motor Specifications

Part Number *	Price	HP	Base RPM	Volts	Enclosure	NEMA Frame	Model No.	N. P. F. L. Amps	Weight (lb) *
E2000	\$489.00	1	3600	208-230/460	TEFC	56C	056T34F5940	3.0-2.8/1.4	28
E2001A	\$421.00		1800			143TC	143TTFR16053	3.3-3.3/1.65	48
E2002	\$473.00		1200			145TC	145TTFR6078	3.8-3.8/1.9	42
E2003	\$455.00	1-1/2	3600			143TC	143TTFR5582	4.4-4.0/2.0	39
E2004A	\$458.00		1800			145TC	145TTFR16331	4.7-4.6/2.3	50
E2005 †	\$586.00		1200			182TC	182TTFW6076	5.6-5.2/2.6	77
E2006	\$503.00	2	3600			145TC	145TTFR3002	5.2-4.8/2.4	48
E2007A	\$503.00		1800			145TC	145TTFR16329	6.2-6.0/3.0	65
E2008 †	\$720.00		1200			184TC	184TTFW6076	7.35-6.4/3.2	94
E2009 †	\$663.00	3	3600			182TC	182TTFW6001	8.4-7.8/3.9	63
E2010 †	\$585.00		1800			182TC	182TTFW6026	8.4-7.8/3.9	87
E2011	\$829.00		1200			213TC	213TTFW6076	9.2-8.8/4.4	125
E2012 †	\$769.00	5	3600			184TC	184TTFW6001	13-12/6	86
E2013 †	\$695.00		1800			184TC	184TTFW6026	13.8-12.6/6.3	87
E2014	\$1,067.00		1200			215TC	215TTFW6076	15.0-14.0/7.0	160
E2015	\$890.00	7-1/2	3600	213TC	213TTFW6001	19.6-17.8/8.9	116		
E2016A	\$905.00		1800		213TTFW16039	21.0-19.4/9.7	140		
E2018	\$949.00		3600		215TC	215TTFW6001	26.4-23.6/11.8	230	
E2019A	\$1,030.00	10	215TTFW16047	28.0-25.6/12.8		150			

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

† These specifications are for the Marathon motor currently being sold. Marathon manufactured a previous version of this Part Number (that had a different model #), and that version had some different specifications. For detailed information on the previous motor, please refer to the "Previous Marathon Model Numbers" table on the next page, or click on the previous motor's specification at [www.AutomationDirect.com/Retired-Products](http://www.AutomationDirect.com/Retired-Products).

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 Web site at [www.automationdirect.com](http://www.automationdirect.com).

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## Performance Data

Performance Data (460 Volt)															
Part Number	HP	NEMA Design	F.L. RPM	Min RPM	Current (Amps)			Torque (lb-ft)			Max CHP RPM*	Max Safe RPM	F.L. Effic. (%)	F.L. Power Factor	Rotor Inertia (lb-ft <sup>2</sup> )
					No Load	Full Load	Locked Rotor	Full Load	Locked Rotor	Break-down					
E2000	1	B	3490	349	0.7	1.4	10	1.5	3.6	5.1	5235	7200	80.0	84	0.04
E2001A		A	1765	177	1.2	1.7	17	3.0	13.7	16.8	1765	4000	85.5	68	0.12
E2002	1-1/2	B	1170	117	1.3	1.9	10	4.5	13.5	15.8	1755	5400	82.5	60	0.14
E2003			3490	349	1.0	2.0	21	2.3	8.5	11.2	5235	7200	84.0	82	0.06
E2004A			1755	176	1.5	2.3	24	4.5	21.2	26.0	1755	4000	86.5	71	0.14
E2005 †			1175	118	1.3	2.6	17	6.8	13.4	24.4	1762.5	5400	87.5	71.5	0.38
E2006			3490	349	1.0	2.4	26	3.0	10.8	13.0	5235	7200	85.5	88	0.08
E2007A			1760	176	1.9	3.0	30.5	6.0	24.5	33.2	1760	4000	86.5	71	0.14
E2008 †	2	B	1170	117	1.9	3.2	20.5	9.0	16.8	30.2	1755	4000	88.5	67	0.162
E2009 †			3510	351	1.8	3.9	33	4.5	11.0	18.2	5265	7200	86.5	83	0.23
E2010 †	3	B	1760	176	1.9	3.9	33.5	8.9	22.5	36.0	2640	4000	89.5	80.5	0.38
E2011			1170	117	2.5	4.4	32	13.5	34.0	47.5	1755	4200	89.5	70	0.80
E2012 †	5	B	3495	350	1.7	6.0	46	7.5	16.0	26.0	5243	5400	88.5	89.5	0.30
E2013 †			1760	176	2.4	6.3	49	15.0	30.1	50.2	2640	4000	89.5	83	0.49
E2014			1170	117	3.7	7.0	46	22.5	47.0	79.0	1755	4200	90.2	75	1.00
E2015	7-1/2	B	3540	354	3.0	8.9	64	11.1	24.0	38.0	5310	5400	90.2	87	0.55
E2016A			1765	177	4.7	9.7	63.5	22.0	52.0	72.0	1765	4000	91.7	80	0.85
E2018	10	B	3535	354	3.5	11.8	80	14.9	30.0	46.0	5302.5	5400	91.7	87	0.65
E2019A			1760	176	5.5	12.8	80	29.8	65.0	90.0	1760	4000	91.7	80	1.10

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

† These specifications are for the Marathon motor currently being sold. Marathon manufactured a previous version of this Part Number (that had a different model #), and that version had some different specifications. For detailed information on the previous motor, please refer to the "Previous Marathon Model Numbers" table below, or click on the previous motor's specification at [www.AutomationDirect.com/Retired-Products](http://www.AutomationDirect.com/Retired-Products).

## Previous Marathon Model Numbers

Previous Marathon Model Numbers				
Part Number	HP	Current Model #	Previous Model #	Date of Change-over
E2001	1	n/a	143TFR5642	09/2014
E2004	1-1/2	n/a	145TFR6033	09/2014
E2005	1-1/2	182TTFW6076	182TFR6076	09/2011
E2007	2	n/a	145TFR6035	09/2014
E2008	2	184TTFW6076AA	184TFR6076	09/2011
E2009	3	182TTFW6001AA	182TFR6001	09/2011
E2010	3	182TTFW6026AA	182TFR6026	09/2011
E2012	5	184TTFW6001AA	184TFR6001	09/2011
E2013	5	184TTFW6026AA	184TFR6026	09/2011
E2016	7-1/2	n/a	213TTFW6026	09/2014
E2019	10	n/a	215TTFW6026	09/2014

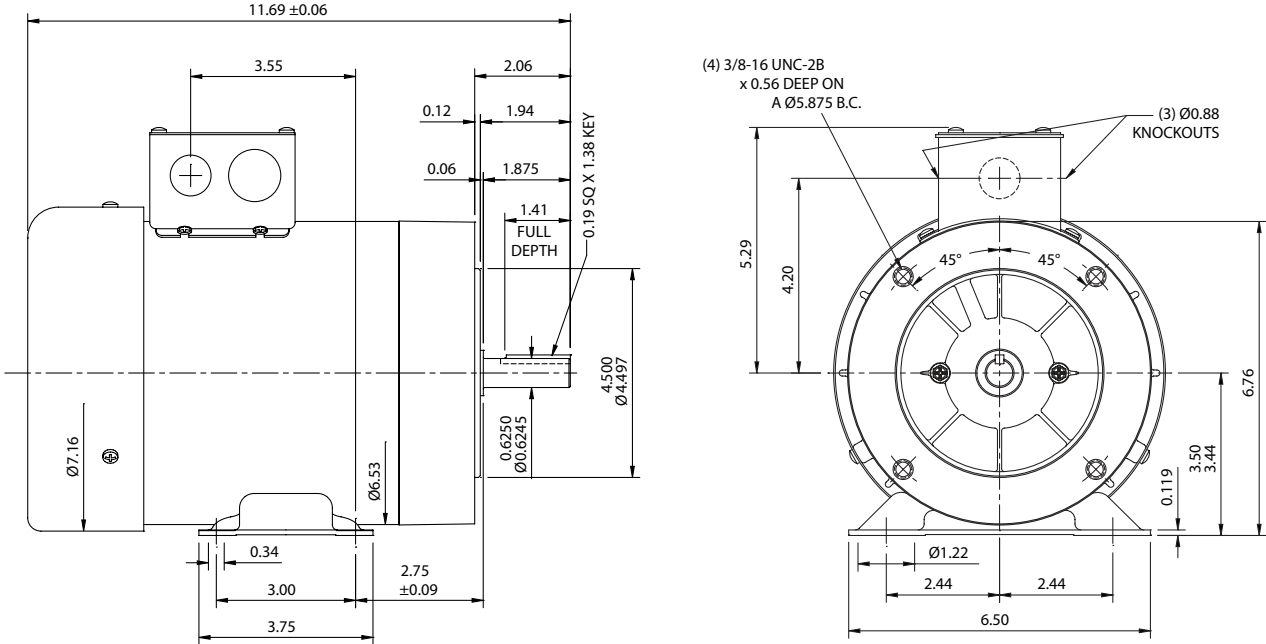
Visit [www.AutomationDirect.com/Retired-Products](http://www.AutomationDirect.com/Retired-Products) for detailed specifications of previous models. (The model # appears on the motor nameplate.)

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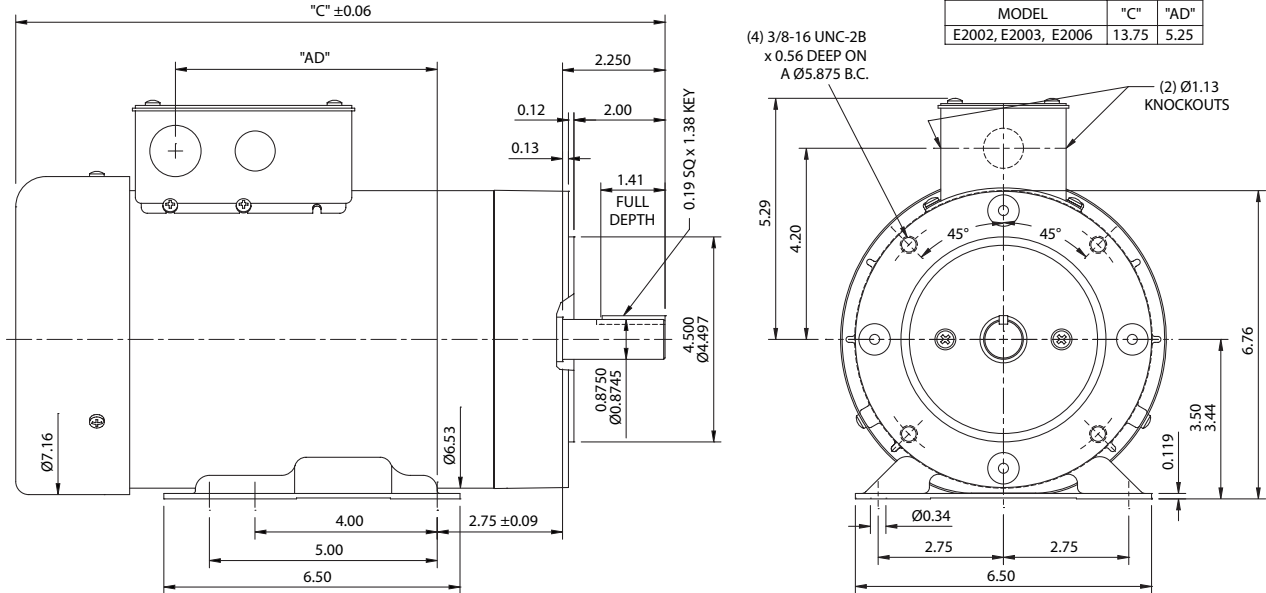
Dimensions (units = inches)

See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

## Frame 56C – Part #: E2000



## Frame 143/5TC – Part #: E2002, E2003, E2006

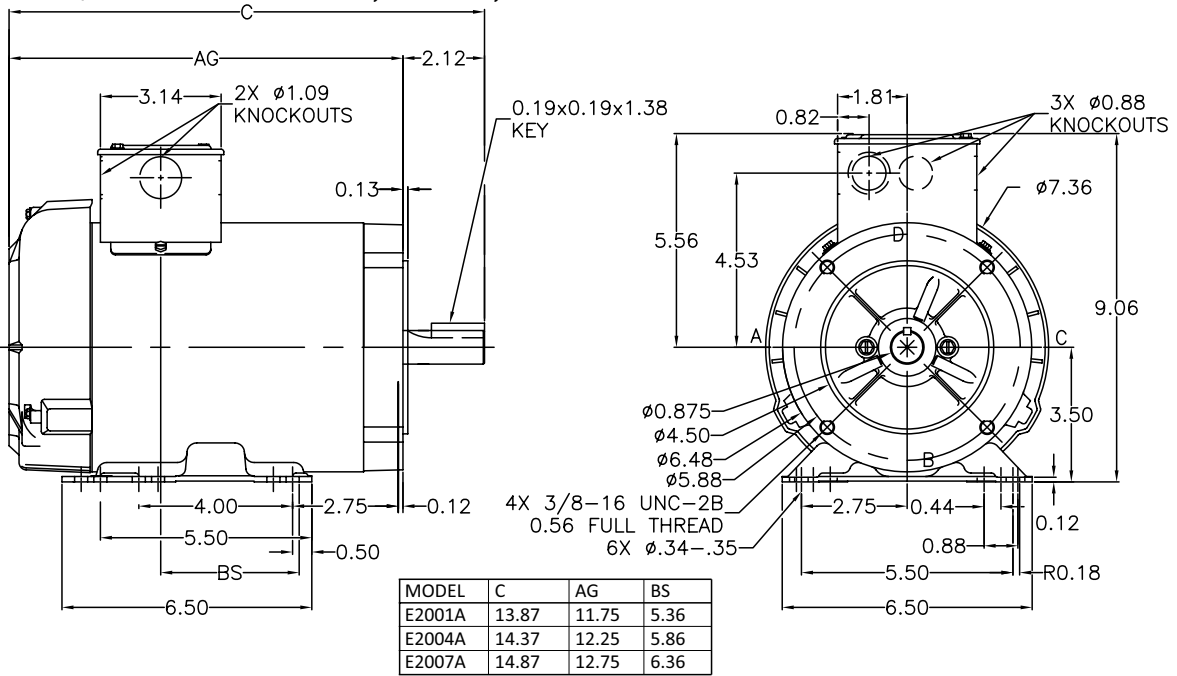


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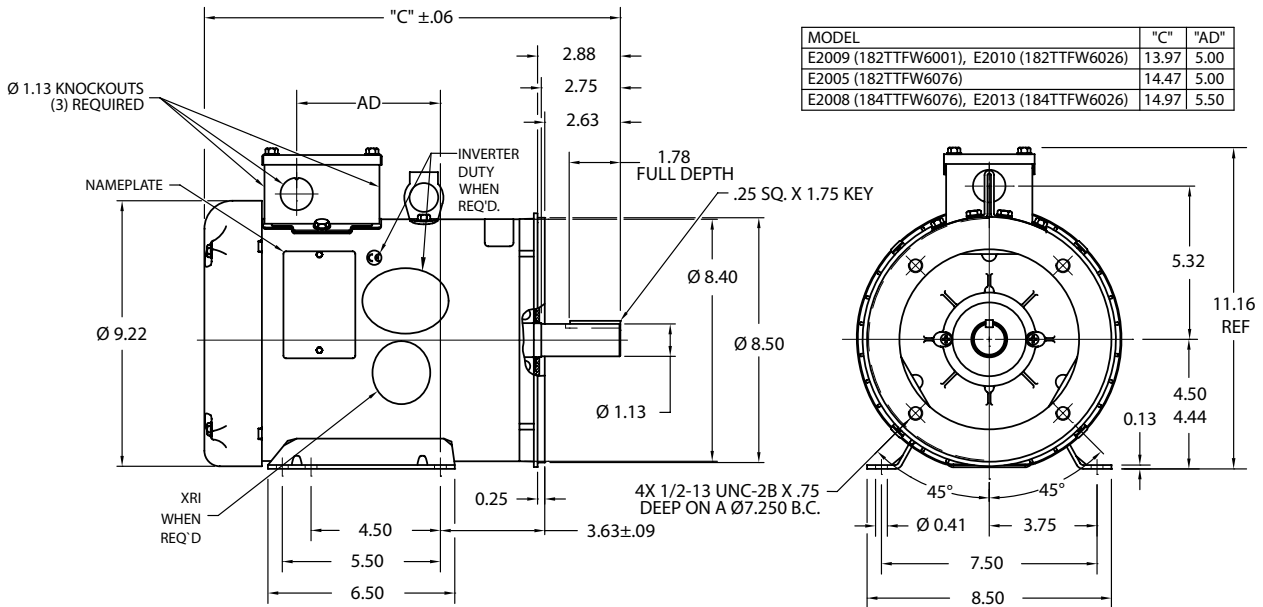
## Dimensions (units = inches)

See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

### Frame 143/5TC – Part #: E2001A, E2004A, E2007A



### Frame 182/4TC – Part #: E2005, E2008, E2009, E2010, E2013

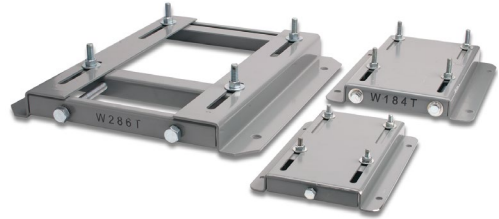




# STABLE™ Motor Slide Bases

## Mounting Slide Bases for 56 to 449T NEMA Motors Features

- Allows adjustment of motor mounting position
- Slide direction is perpendicular to motor shaft
- Double adjusting screws for frames 182T-449T
- Manufactured to precise dimensional standards
- Dimensionally interchangeable with existing major makes
- Heavy-duty steel construction
- Painted with oven-baked primer for better adhesion of customer's paint
- All "D" bolts (motor mounting bolts) are fixed to the exact motor foot pattern
- All "D" bolts are welded into position to prevent spinning and dropping from slots
- Nuts and washers are provided for securing the motor to the slide base

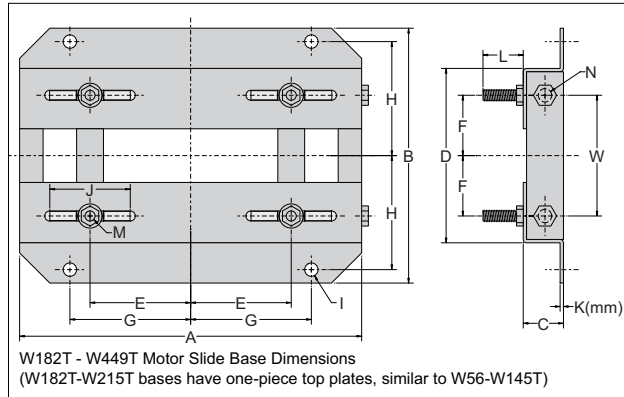
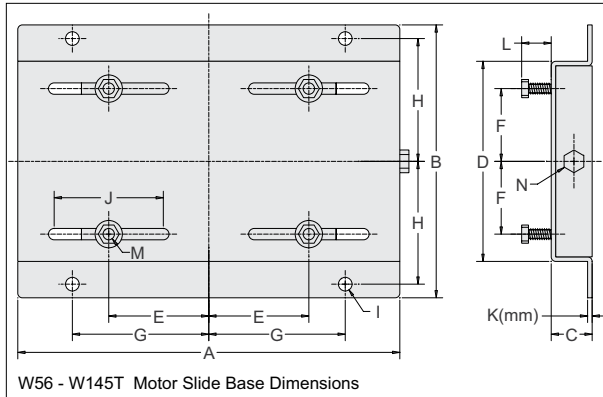


STABLE Motor Slide Bases												
Part Number	Price	Fits Frame Type	Product Weight (lb)	Fits Motor								
				IronHorse	Marathon					NEMA Premium XRI	Blue Chip XRI 230/460V	Blue Chip XRI 575V
					micro-MAX	MAX+	Black Max 230/460V	Black Max 575V	Blue Max			
<b>MTA-BASE-W56*</b>	\$9.75	56*	2.8	MTPM-P3x-1x18 MTPM-P5x-1x18 MTPM-P7x-1x18 MTPM-0xx-1x18 MTPM-1xx-1x18 MTR(2)(P)-xxx-xxxx*	Y500 Y502 Y360 Y362 Y364	Y280 Y281 Y282	Y592(-A772) Y534(-A772) Y535(-A772)	Y555(-A772) Y556(-A772)	-	E2000	-	-
<b>MTA-BASE-W143T</b>	\$18.00	143T/TC	4.6	MTC(P)-001-3BD18(C)(CK) MTC(P)-1P5-3BD36	-	-	Y536(-A772)	-	-	E2001A E2003	-	-
<b>MTA-BASE-W145T</b>	\$18.00	145T/TC	5.1	MTC(P)-001-3BD12 MTC(P)-1P5-3BD18(C)(CK) MTC(P)-002-3BD18(C)(CK) MTC(P)-002-3BD36	Y366 Y368	Y284 Y285	Y537(-A772) Y538(-A772) Y551(-A772)	Y557(-A772)	-	E2002 E2004A E2006 E2007A	-	-
<b>MTA-BASE-W182T</b>	\$24.00	182T/TC	9.2	MTC(P)-1P5-3BD12 MTC(P)-003-3BD18(C)(CK) MTC(P)-003-3BD36 MTF-002-1C18-182	Y1999	Y286A	Y541A(-A772)	Y558A(-A772)	-	E2005 E2009 E2010	-	-
<b>MTA-BASE-W184T</b>	\$24.00	184T/TC	10	MTC(P)-002-3BD12 MTC(P)-005-3BD18(C)(CK) MTC(P)-005-3BD36 MTF-00x-1C18	Y1372	Y287A	Y540(-A772) Y543A(-A772)	Y559A(-A772)	-	E2008 E2012 E2013	-	-
<b>MTA-BASE-W213T</b>	\$35.00	213T/TC	13	MTC(P)-003-3BD12 MTC(P)-7P5-3BD18(C)(CK) MTC(P)-7P5-3BD36	Y994	-	Y542(-A772) Y545(-A772)	Y560(-A772)	-	E2011 E2015 E2016A	-	-
<b>MTA-BASE-W215T</b>	\$35.00	215T/TC	15	MTC(P)-005-3BD12 MTC(P)-010-3BD18(C)(CK) MTC(P)-010-3BD36	Y996	-	Y544(-A772) Y547(-A772)	Y561(-A772)	-	E2014 E2018 E2019A	-	-
<b>MTA-BASE-W254T</b>	\$49.00	254T/TC	18	MTC(P)-7P5-3BD12 MTC(P)-015-3BD18(C)(CK) MTCP-015-3BD36	-	-	Y546(-A772) Y549(-A772)	Y562(-A772)	-	-	E205	E307
<b>MTA-BASE-W256T</b>	\$49.00	256T/TC	19	MTC(P)-010-3BD12 MTC(P)-020-3BD18(C)(CK) MTCP-20-3BD36	-	-	Y548(-A772) Y552(-A772)	Y563(-A772)	-	-	E206	E308
<b>MTA-BASE-W284T</b>	\$54.00	284T/TC	20	MTCP-015-3BD12 MTC(P)-025-3BD18(C)(CK)	-	-	Y553(-A772)	-	-	-	E207	E309
<b>MTA-BASE-W286T</b>	\$54.00	286T/TC	21	MTCP-20-3BD12 MTC(P)-030-3BD18(C)(CK)	-	-	Y393(-A772)	-	-	-	E208	E310
<b>MTA-BASE-W324T</b>	\$81.00	324T/TC	30	MTC(P)-040-3BD18(C)(CK)	-	-	-	-	Y571(-A774) Y513(-A775)	-	E209	E311
<b>MTA-BASE-W326T</b>	\$81.00	326T/TC	31	MTC(P)-050-3BD18(C)(CK)	-	-	-	-	Y572(-A774) Y514(-A775)	-	E210	E312
<b>MTA-BASE-W364T</b>	\$110.00	364T/TC	43	MTC(P)-060-3BD18(C)(CK)	-	-	-	-	Y573(-A774) Y515(-A775)	-	E211	E313
<b>MTA-BASE-W365T</b>	\$110.00	365T/TC	43	MTC(P)-075-3BD18(C)(CK)	-	-	-	-	Y574(-A774) Y516(-A775)	-	E212	E315
<b>MTA-BASE-W404T</b>	\$136.00	404T/TC	58	-	-	-	-	-	-	-	-	-
<b>MTA-BASE-W405T</b>	\$136.00	405T/TC	60	MTC(P)-100-3BD18(C)(CK)	-	-	-	-	Y575(-A774) Y517(-A775)	-	E213	E314
<b>MTA-BASE-W444T</b>	\$157.00	444T	63	MTC(P)-125-3BD18	-	-	-	-	-	-	-	-
<b>MTA-BASE-W445T</b>	\$157.00	445T	65	MTC(P)-150-3BD18	-	-	-	-	-	-	-	-
<b>MTA-BASE-W447T</b>	\$207.00	447T	89	MTC(P)-200-3BD18	-	-	-	-	-	-	-	-
<b>MTA-BASE-W449T</b>	\$207.00	449T	94	MTC-250-3D18 MTC-300-3D18	-	-	-	-	-	-	-	-

\* IronHorse MTR2 56HC motors have double-punched bases to fit on slide base MTA-BASE-W56.

# STABLE Motor Slide Bases

## Dimensions – Mounting Slide Bases for NEMA Motors



Dimensions [inches, except as noted] - STABLE Motor Slide Bases															
MTA-BASE-Wxxxx	A	B	C	D	E	F	G	H	I	J	K(mm)	L	M	N	W
<b>56</b>	10-5/8	6-1/2	1-1/8	4-1/2	2-7/16	1-1/2	3-13/16	2-7/8	3/8	3	2 mm	7/8	5/16 x 1	3/8 x 4	n/a
<b>143T</b>	10-1/2	7-1/2	1-1/8	5-1/2	2-3/4	2	3-3/4	3-3/8	3/8	3	3 mm	13/16	5/16 x 1	3/8 x 4	n/a
<b>145T</b>	10-1/2	8-1/2	1-1/8	6-1/2	2-3/4	2-1/2	3-3/4	3-7/8	3/8	3	3 mm	13/16	5/16 x 1	3/8 x 4	n/a
<b>182T</b>	12-3/4	9-1/2	1-1/2	6-1/2	3-3/4	2-1/4	4-1/2	4-1/4	1/2	3	3.5 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	4-1/2
<b>184T</b>	12-3/4	10-1/2	1-1/2	7-1/2	3-3/4	2-3/4	4-1/2	4-3/4	1/2	3	3.5 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	5-1/2
<b>213T</b>	15	11	1-3/4	7-1/2	4-1/4	2-3/4	5-1/4	4-3/4	1/2	3-1/2	3.8 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	5-1/2
<b>215T</b>	15	12-1/2	1-3/4	9	4-1/4	3-1/2	5-1/4	5-1/2	1/2	3-1/2	3.8 mm	1-1/2	3/8 x 1-3/4	1/2 x 6	7
<b>254T</b>	17-3/4	15-1/8	2	10-3/4	5	4-1/8	6-1/4	6-5/8	5/8	4	4.6 mm	1-7/16	1/2 x 1-3/4	5/8 x 6	5-5/16
<b>256T</b>	17-3/4	16-7/8	2	12-1/2	5	5	6-1/4	7-1/2	5/8	4	4.6 mm	1-7/16	1/2 x 1-3/4	5/8 x 6	7
<b>284T</b>	19-3/4	16-7/8	2	12-1/2	5-1/2	4-3/4	7	7-1/2	5/8	4-1/2	4.6 mm	1-11/16	1/2 x 2	5/8 x 6	7
<b>286T</b>	19-3/4	18-3/8	2	14	5-1/2	5-1/2	7	8-1/4	5/8	4-1/2	4.6 mm	1-11/16	1/2 x 2	5/8 x 6	8
<b>324T</b>	22-3/4	19-1/4	2-1/2	14	6-1/4	5-1/4	8	8-1/2	3/4	5-1/4	4.6 mm	2-3/16	5/8 x 2-1/2	3/4 x 9	7
<b>326T</b>	22-3/4	20-3/4	2-1/2	15-1/2	6-1/4	6	8	9-1/4	3/4	5-1/4	4.6 mm	2-3/16	5/8 x 2-1/2	3/4 x 9	8-1/2
<b>364T</b>	25-1/2	20-1/2	2-1/2	15-1/2	7	5-5/8	9	9-1/8	3/4	6	5.8 mm	2-1/16	5/8 x 2-1/2	3/4 x 9	7-3/4
<b>365T</b>	25-1/2	21-1/2	2-1/2	16-1/2	7	6-1/8	9	9-5/8	3/4	6	5.8 mm	2-1/16	5/8 x 2-1/2	3/4 x 9	8-3/4
<b>404T</b>	28-3/4	22-3/8	3	16-1/2	8	6-1/8	10	9-7/8	7/8	7	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	8-3/4
<b>405T</b>	28-3/4	23-7/8	3	18	8	6-7/8	10	10-5/8	7/8	7	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	10-1/4
<b>444T</b>	31-1/4	24-5/8	3	19-1/4	9	7-1/4	11	11	7/8	7-1/2	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	11
<b>445T</b>	31-1/4	26-5/8	3	21-1/4	9	8-1/4	11	12	7/8	7-1/2	5.8 mm	2-1/2	3/4 x 3	3/4 x 11	13
<b>447T</b>	31-1/4	30-1/8	3	24-3/4	9	10	11	13-3/4	7/8	7-1/2	8 mm	3	3/4 x 3-1/2	3/4 x 11	16-1/2
<b>449T</b>	31-1/4	35-1/8	3	29-3/4	9	12-1/2	11	16-1/4	7/8	7-1/2	8 mm	3	3/4 x 3-1/2	3/4 x 11	21-1/2