marathon® Motors

Blue Max® 2000 Vector Duty Motors

Features

- Class H MAX GUARD® insulation system
- Constant torque operation from 0 to base speed on vector drive, including TEFC (on V/Hz drives, TEFC motors are limited to 20:1 constant torque)
- Constant horsepower operation to 1.5 times base RPM
- Continuous duty at 40°C ambient
- Optimized for operation with IGBT inverter (NEMA Design A)
- C-Face foot mount through 100 HP (NEMA frame type TC motors)
- Class F N/C thermostats (one per phase)
- Cast-iron frame and brackets
- Utilizes double shielded ball bearings with Exxon Polyrex® EM grease
- "Class B" temperature rise on blower-cooled motors
- F1 standard conduit box location, field reversible to F2
- Available with optional encoder installed on opposite drive end
- Electrically reversible
- UL Recognized, CSA Certified, and CE Mark
- Three year warranty (through Marathon Electric)

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.

Applications

Designed for inverter or vector applications. Typical uses include: material handling, machine tools, conveyors, crane and hoist, metal processing, test stands, pumps, compressors, textile processing, and other industrial machinery installed in dusty or dirty environments where cast-iron construction is required.

Motor Specifications

*Part Number **	*Price*	*HP*	*Base RPM*	*Volts*	*Encl.*	*NEMA Frame*	*Model No.*	*F.L. Amps*	*Weight (lb) **	*Drawing Links*
Y571	$6,403.00	40	1800	230/460	TEFC	324T	324THFPA8028	100 / 50.0	540	PDF
Y513	$7,984.00	40	1800	230/460	TEBC	324TC	324THFPA8038	100 / 50.0	620	PDF
Y572	$7,922.00	50	1800	230/460	TEFC	326T	326THFS8028	121 / 60.5	540	PDF
Y514	$9,152.00	50	1800	230/460	TEBC	326TC	326THFPA8038	120 / 60.0	640	PDF
Y573	$10,213.00	60	1800	230/460	TEFC	364T	364THFS8036	147 / 73.5	965	PDF
Y515	$11,204.00	60	1800	230/460	TEBC	364TC	364THFS8046	147 / 73.5	1062	PDF
Y574	$11,704.00	75	1800	230/460	TEFC	365T	365THFS8036	184 / 92.0	1006	PDF
Y516	$13,555.00	75	1800	230/460	TEBC	365TC	365THFS8046	180 / 90.0	1106	PDF
Y575	Retired	100	1800	230/460	TEFC	405T	405THFS8036	230 / 115	1308	PDF
Y517	Retired	100	1800	230/460	TEBC	405TC	405THFS8046	230 / 115	1429	PDF

*** Refer to the Motor Shipping Schedule table for shipping information**
Note: Please review the AutomationDirect Terms & Conditions for warranty and service on this product.
Warranty service can be arranged through Marathon Electric service centers. See list of service centers on our Web site at www.AutomationDirect.com.

Performance Data (460 Volt)

Part Number	*HP*	*F.L. 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 ($lb·ft^2$)*	*Ohms/Ph - Equiv. Wye Circuit (460 VAC) (at rated operating temp. in 40° C ambient)*				
												R1	*R2*	*X1*	*X2*	*XM*
Y571	40	1770	50.0	20.0	118.0	320.0	2642	3600	91.7	81.5	5.000	0.082	0.077	0.435	0.592	10.280
Y513	40	1770	50.0	20.0	118.0	320.0	2642	3600	91.7	81.5	5.000	0.082	0.077	0.435	0.592	10.280
Y572	50	1780	60.5	26.5	148.0	400.0	2675	3600	92.4	81.0	10.000	0.063	0.046	0.424	0.596	10.000
Y514	50	1765	60.0	25.0	149.0	525.0	3525	3600	93.0	83.5	5.500	0.088	0.092	0.437	0.358	9.662
Y573	60	1782	73.5	28.0	177.0	525.0	2665	2700	91.7	83.0	14.500	0.063	0.042	0.338	0.455	8.850
Y515	60	1782	74.0	28.0	177.0	525.0	2665	2700	91.7	83.0	14.500	0.063	0.042	0.338	0.455	8.850
Y574	75	1780	92.0	40.0	221.0	740.0	2665	2700	94.1	82.0	16.500	0.047	0.031	0.267	0.313	6.275
Y516	75	1780	90.0	33.0	222.0	645.0	2685	2700	93.0	84.0	16.000	0.054	0.038	0.299	0.420	8.203
Y575	100	1785	115.0	38.0	295.0	900.0	2675	2700	94.5	86.5	27.500	0.034	0.021	0.236	0.219	6.820
Y517	100	1785	115.0	38.0	295.0	900.0	2675	2700	94.5	86.5	27.500	0.034	0.021	0.236	0.219	6.816

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

Blue Max® 2000 Vector Duty Motors

Blower Motor Performance Data (for TEBC Blower Cooled Motors)										
Blower Fits Motor Type				Blower Motor Characteristics						
Part Number	Model No.	NEMA Frame	Encl.	HP (60/50Hz)	RPM (60/50Hz)	Volts	Hz	F.L. Amps	Sound Pressure	Watts
Y513	324THFPA8038	324TC	TEBC	1 / 0.75	1735 / 1460	230/460 – 190/380	60 / 50	3.0 / 1.5	40	850
Y513-A775										850
Y514	326THFPA8038	326TC								851
Y514-A775										852
Y515	364THFS8046	364TC						3.7 / 1.85	68	853
Y515-A775										854
Y516	365THFS8046	365TC								855
Y516-A775										856
Y517	405THFS8046	405TC								857
Y517-A775										858

Encoder shaft-mounted to motor*

A Dynapar Model HS35/HSD38 shaft-mounted encoder can be supplied pre-installed on the selected motor, either TEFC or TEBC type, as shown in the table below. The encoder requires a 5–26 VDC power source**, provides a count of 1024 pulses per revolution (PPR) differential line driver output, and includes a 10-pin connector. A mating connector is supplied with TEFC (totally enclosed fan cooled) motor encoders; the customer is responsible for supplying the wiring cable and determining the connections to the equipment being used in the application. The encoder adds 1 inch to the TEFC motor's "C" dimension as shown in the dimensional diagram.

The TEBC (totally enclosed blower cooled) motor encoders have the mating connector pre-wired, installed and ending in a pigtail located inside a conduit box mounted on the motor. (See Figure 2 under the motor dimensional information on the next page.) The customer is responsible for determining the connections to the equipment being used in their application.

** If connecting the motor to a DURApulse AC drive, a GS3-FB Feedback Card is required for the drive.*

*** When used with a GS3-FB equipped DURApulse AC drive, the GS3-FB will supply power to the encoder.*

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 Accessories		
Part Number	Price	Description *
A774	$1,149.00	Encoder kit, replacement, for Blue Max TEFC encoder motors. Dynapar HS35 encoder, 5–26 VDC input, Line Driver output, 1024 pulses per revolution, 1-in bore.
A775	$1,149.00	Encoder kit, replacement, for Blue Max TEBC encoder motors. Dynapar HSD38 encoder, 5–26 VDC input, Line Driver output, 1024 pulses per revolution. 1-in bore.

*** Replacement/spare encoder kit for Blue Max Y5xx-A774 and Y5xx-A775 motors; can also be field installed on Blue Max Y5xx motors; select appropriate encoder kit per motor fan type (TEFC or TEBC).**

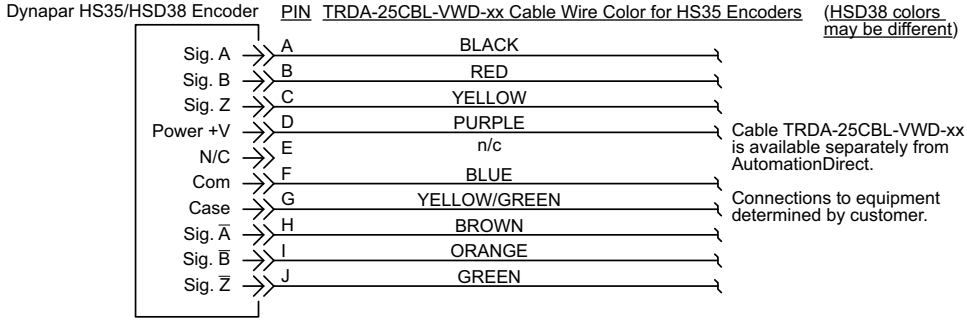
Motor with Pre-installed Shaft-Mounted Encoder					
Part Number	Price	HP	Part Number	Price	HP
Y571-A774	Retired	40 (TEFC)	Y574-A774	$12,636.00	75 (TEFC)
Y513-A775	$9,117.00	40 (TEBC)	Y516-A775	$14,433.00	75 (TEBC)
Y572-A774	$9,055.00	50 (TEFC)	Y575-A774	Retired	100 (TEFC)
Y514-A775	$10,266.00	50 (TEBC)	Y517-A775	Retired	100 (TEBC)
Y573-A774	$11,305.00	60 (TEFC)			
Y515-A775	$12,281.00	60 (TEBC)			

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.

Encoder Connector Pinout

Note: A mating connector is supplied loose for the customer's wiring on encoder equipped TEFC motors and a mating connector pre-wired to a cable and pigtailed in a conduit box on encoder equipped TEBC motors.

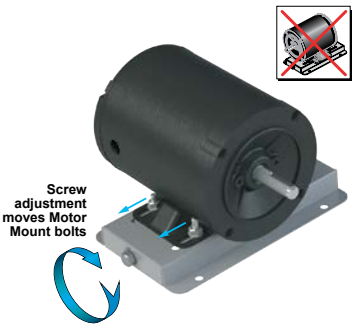
Prewired cables TRDA-25CBL-VWD-xx (10, 20, & 30 ft) and replacement MS connectors TRDA-25CON-VWD are available from AutomationDirect.



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 for 3-Phase Motors

Part Number (MTA-BASE-xxx)	Price	Fits Frame Type	Product Wt. (lb)	Fits Motor						Drawing Links
				IronHorse	Leeson® WashGuard®	WEG (Part number ending in...)	Marathon microMAX, Max+, Black Max, Blue Max,SyMAX	Marathon XRI GP & NEMA Premium, Jet Pump	Marathon Globetrotter	
W56	$14.00	56*	2.8	MTPM-P3x-1x18 MTPM-P5x-1x18 MTPM-P7x-1x18 MTPM-0xx-1x18 MTPM-1xx-1x18 MTR(2)(P)-xxx-xxxxx* MTRJ(P)-xxx-xxxxxx MTSN-P33-3BD18 MTSN-P33-3BD18R MTSN-P33-3BD36 MTSP-P33-3BD18 MTSP-P33-3BD18R MTSP-P33-3BD36 MTSP-P33-3BD36R MTSN-P50-3BD18 MTSN-P50-3BD18R MTSN-P50-3BD36 MTSP-P50-3BD12 MTSP-P50-3BD18 MTSP-P50-3BD18R MTSP-P50-3BD36 MTSP-P50-3BD36R MTSN-P75-3BD18 MTSN-P75-3BD18R MTSN-P75-3BD36 MTSP-P75-3BD12 MTSP-P75-3BD18 MTSP-P75-3BD18R MTSP-P75-3BD36 MTSP-P75-3BD36R MTSN-001-3BD18 MTSN-001-3BD18R MTSN-001-3BD36 MTSP-001-3BD18 MTSP-001-3BD18R MTSP-001-3BD36 MTSP-001-3BD36R MTSN-1P5-3BD18 MTSN-1P5-3BD18R MTSN-1P5-3BD36 MTSP-1P5-3BD18 MTSP-1P5-3BD18R MTSP-1P5-3BD36 MTSP-1P5-3BD36R MTSN-002-3BD18 MTSN-002-3BD18R MTSN-002-3BD36 MTSP-002-3BD18 MTSP-002-3BD18R MTSP-002-3BD36 MTSP-002-3BD36R	112427.00 112428.00 112429.00 112430.00 113019.00 113023.00 113473.00 113586.00 113590.00 113591.00 113649.00 116644.00 116645.00 119468.00 119469.00 119471.00 119475.00 119476.00 119478.00 119480.00 119482.00 119483.00 191202.00 191204.00 191205.00 191206.00 191207.00 191208.00 191560.00 191561.00 191562.00 191563.00 191564.00 191569.00	(...)56-S (...)56C-S	Y500 Y502 Y360 Y362 Y364 Y280 Y281 Y282 Y592(-A772) Y534(-A772) Y535(-A772) SY001 SY003 SY004 SY005 SY035	E2000 D390 G580 D391 G581 K705 D392 G582 K707 D393A K708A G583A K709A D394A K721A G584A D395A G585A K724A D396A K725A J066A	–	PDF

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

STABLE™ Motor Slide Bases

STABLE Motor Slide Bases for 3-Phase Motors

Part Number (MTA-BASE-xxx)	Price	Fits Frame Type	Product Wt. (lb)	Fits Motor						Drawing Links
				IronHorse	Leeson® WashGuard®	WEG (Part number ending in...)	Marathon microMAX, Max+, Black Max, Blue Max,SyMAX	Marathon XRI GP & NEMA Premium, Jet Pump	Marathon Globetrotter	
W143T	$26.00	143T/TC	4.6	MTCP2-001-3BD18(C) MTCP2-1P5-3BD36 MTSN-1P5-3BD36-14 MTSP-1P5-3BD36-14 MTSP-1P5-3BD36R-14	191487.00 191565.00		Y536(-A772)	E2001A E2003	–	PDF
W145T	$26.00	145T/TC	5.1	MTCP2-001-3BD12 MTCP2-1P5-3BD18(C) MTCP2-002-3BD18(C) MTCP2-002-3BD36 MTSP-001-3BD12 MTSN-1P5-3BD18-14 MTSN-1P5-3BD18R-14 MTSP-1P5-3BD18-14 MTSP-1P5-3BD18R-14 MTSN-002-3BD18-14 MTSN-002-3BD18R-14 MTSN-002-3BD36-14 MTSP-002-3BD18-14 MTSP-002-3BD18R-14 MTSP-002-3BD36-14 MTSP-002-3BD36R-14	121866.00 121868.00 121870.00 122182.00 122184.00 122185.00 191490.00 191491.00 191570.00	(...)145T-S (...)145TC-S	Y366 Y368 Y284 Y285 Y537 Y538(-A772) Y551(-A772)	E2002 E2004A E2007A	–	PDF
W182T	$35.50	182T/TC	9.2	MTCP2-1P5-3BD12 MTCP2-003-3BD18(C) MTCP2-003-3BD36 MTSP-1P5-3BD12 MTSN-003-3BD18-18 MTSN-003-3BD36-18 MTSP-003-3BD18-18 MTSP-003-3BD36-18	132196.00 132198.00		Y1999 Y286A Y541A(-A772) SY036 SY066	E2009 E2010	GT0010A GT1010A	PDF
W184T	$35.50	184T/TC	10	MTCP2-002-3BD12 MTCP2-005-3BD18(C) MTCP2-005-3BD36 MTF-00x-1C18 MTSP-002-3BD12 MTSP-005-3BD18 MTSP-005-3BD36	132197.00 132200.00 132201.00 132440.00		Y1372 Y287A Y540(-A772) Y543A(-A772) E2012 E2013 SY007A SY067	–	GT0013A GT1013A GT1210A GT1212A GT1213A	PDF
W213T	$52.00	213T/TC	13	MTCP2-003-3BD12 MTCP2-7P5-3BD18(C) MTCP2-7P5-3BD36 MTSP-003-3BD12 MTSP-7P5-3BD18	140819.00 140822.00 141266.00		Y994 Y542(-A772) Y545(-A772) E2011 E2016A E2011A E2016B SY068	–	GT0016A GT1016A GT1216A	PDF
W215T	$52.00	215T/TC	15	MTCP2-005-3BD12 MTCP2-010-3BD18(C) MTCP2-010-3BD36 MTSP-005-3BD12 MTSP-010-3BD18	140820.00 140821.00		Y996 Y544(-A772) Y547(-A772) E2018 E2014A E2018A SY069	–	GT0019A GT1019A GT1218A GT1219A	PDF
W254T	$71.00	254T/TC	18	MTCP2-7P5-3BD12 MTCP2-015-3BD18(C) MTCP2-015-3BD36 MTSP-015-3BD18	–		Y546(-A772) Y549(-A772)	–	GT0059 GT1022A GT1222A	PDF

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

STABLE™ Motor Slide Bases

STABLE Motor Slide Bases for 3-Phase Motors

Part Number (MTA-BASE-xxx)	Price	Fits Frame Type	Product Wt. (lb)	Fits Motor						Drawing Links
				IronHorse	Leeson® WashGuard®	WEG (Part number ending in...)	Marathon microMAX, Max+, Black Max, Blue Max,SyMAX	Marathon XRI GP & NEMA Premium, Jet Pump	Marathon Globetrotter	
W256T	$71.00	256T/TC	19	MTCP2-010-3BD12 MTCP2-020-3BD18(C) MTCP2-020-3BD36 MTSP-020-3BD18	–		Y548(-A772) Y552	–	GT0062 GT1025A GT1225A	PDF
W284T	$79.00	284T/TC	20	MTCP2-015-3BD12 MTCP2-025-3BD18(C)	–		–	–	GT0065 GT1028A	PDF
W286T	$79.00	286T/TC	21	MTCP2-020-3BD12 MTCP2-030-3BD18(C)	–		–	–	GT0067 GT1031A	PDF
W324T	$116.00	324T/TC	30	MTCP2-040-3BD18(C)	–		Y571(-A774) Y513(-A775)	–	GT0073 GT1034A	PDF
W326T	$116.00	326T/TC	31	MTCP2-050-3BD18(C)	–		Y572(-A774) Y514(-A775)	–	GT0077 GT1037A	PDF
W364T	$158.00	364T/TC	43	MTCP2-060-3BD18(C)	–		Y573(-A774) Y515(-A775)	–	GT1040A	PDF
W365T	$158.00	365T/TC	43	MTCP2-075-3BD18(C)	–		Y574(-A774) Y516(-A775)	–	GT1043A	PDF
W404T	$193.00	404T/TC	58	–	–		–	–	–	PDF
W405T	$193.00	405T/TC	60	MTCP2-100-3BD18(C)	–		Y575(-A774) Y517(-A775)	–	GT1046A	PDF
W444T	$219.00	444T	63	MTCP2-125-3BD18	–		–	–	GT1049A	PDF
W445T	$219.00	445T	65	MTCP2-150-3BD18	–		–	–	GT1052A	PDF
W447T	$288.00	447T	89	MTCP2-200-3BD18	–		–	–	GT1055A	PDF
W449T	$288.00	449T	94	MTCP2-250-3D18 MTCP2-300-3D18	–		–	–	–	PDF

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

STABLE™ Motor Slide Bases

Mounting Slide Bases for 56 to 215T NEMA Motors Features

STABLE Motor Slide Bases for 1-phase Motors									
Part Number	Price	Fits Frame Type	Product Wt. (lb)	Fits Motor					
				IronHorse	Leeson®	Marathon			
					Washguard®	Marathon DP GP (NEMA Service Factor)	Marathon DP Air Compressor	Fan & Blower	Marathon TE GP 4-in-1
MTA-BASE-W56	$14.00	56*	2.8	MTR2-xxx-1AB18 MTR2-xxx-1AB36 MTPM-xxx-1L18 MTPM-xxx-1M18	112431.00 112527.00 112528.00 112529.00 113583.00 114311.00 114313.00 114317.00 191475.00 191477.00 191479.00	C158A G915A C175A C167A C179A G937A C185A C187A C193A E261A E268A EG277A	D010 C169 C704 D017	C216 C1153 C1155 B319 D118 C1158 C235 D115 C1160 C1161 B352	G570 D311 G571 D312 G572 D313 G573 D314 G574 D315 G575 D316
MTA-BASE-W143T	$26.00	143T / TC	4.6	–	–	C188A	–	–	–
MTA-BASE-W145T	$26.00	145TC / TC	5.1	–	–	C191 I127 C194	–	–	–
MTA-BASE-W182T	$35.50	182T / TC	9.2	–	–	–	–	–	–
MTA-BASE-W184T	$35.50	184 / TC	10	MTF-00x-1C18	–	–	Z502	–	–
MTA-BASE-W213T	$52.00	213T / TC	13	–	–	–	–	–	–
MTA-BASE-W215T	$52.00	215T T TC	15	–	–	–	–	–	–

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