

MAX+ AC Inverter-Duty Motors with Encoder

Performance Data

Performance Data (460 Volt) – MAX+													
Part Number	HP	NEMA Design	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)
Y280	1/2	A	1725	0	0.8	0.5	1.5	5.8	3510	5400	80.0	72.0	0.06
Y281	3/4	A	1725		1.2	0.8	2.3	10.2	3450		82.5	73.5	0.09
Y282	1	A	1725		1.5	1.0	3.0	15.0	3505		84.0	75.0	0.11
Y284	1-1/2	B	1755		2.4	1.6	4.5	29.0	3500		85.5	69.0	0.14
Y285	2	B	1750		3.0	1.7	6.0	28.5	3525		85.5	78.0	0.13
Y286A	3	B	1755		4.1	2.3	9.0	49.3	3510		87.5	78.5	0.42
Y287A	5	B	1760		6.7	3.2	14.9	61.5	3520		89.5	79.0	0.52

* Maximum Constant HP RPM is for direct coupled loads.

Dimensions (units = inches)

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

Figure 1 – Y280, Y281, Y282

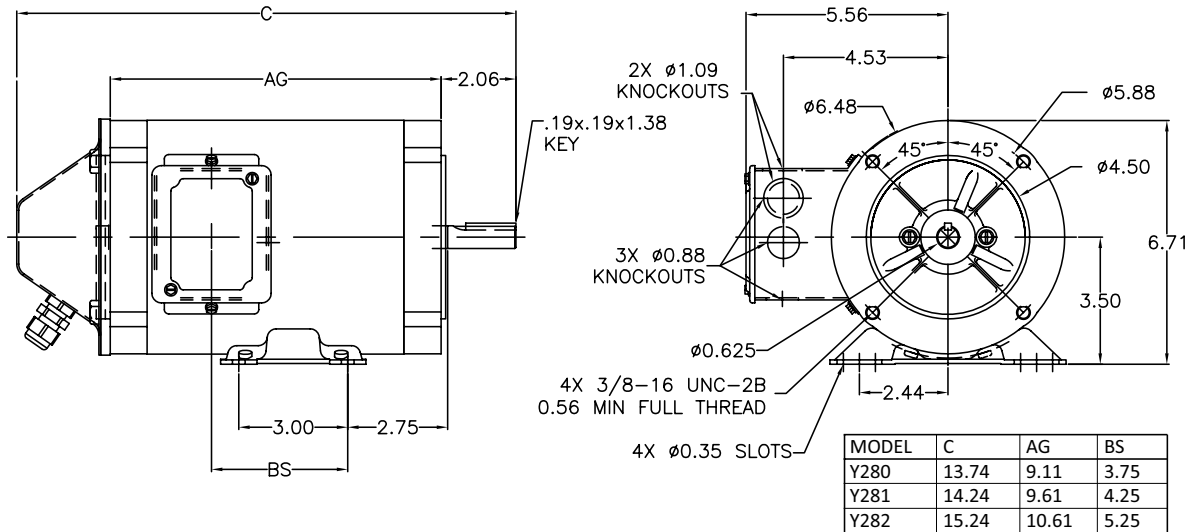
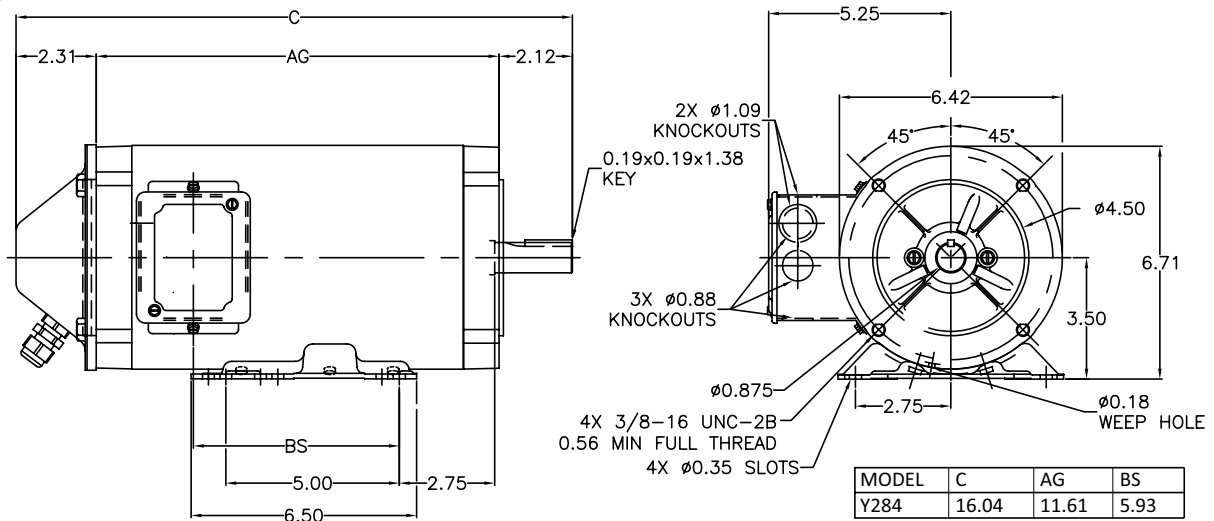


Figure 2 – Y284



MAX+ AC Inverter-Duty Motors with Encoder

Motors – Dimensions (units = inches)

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

Figure 3 – Y285

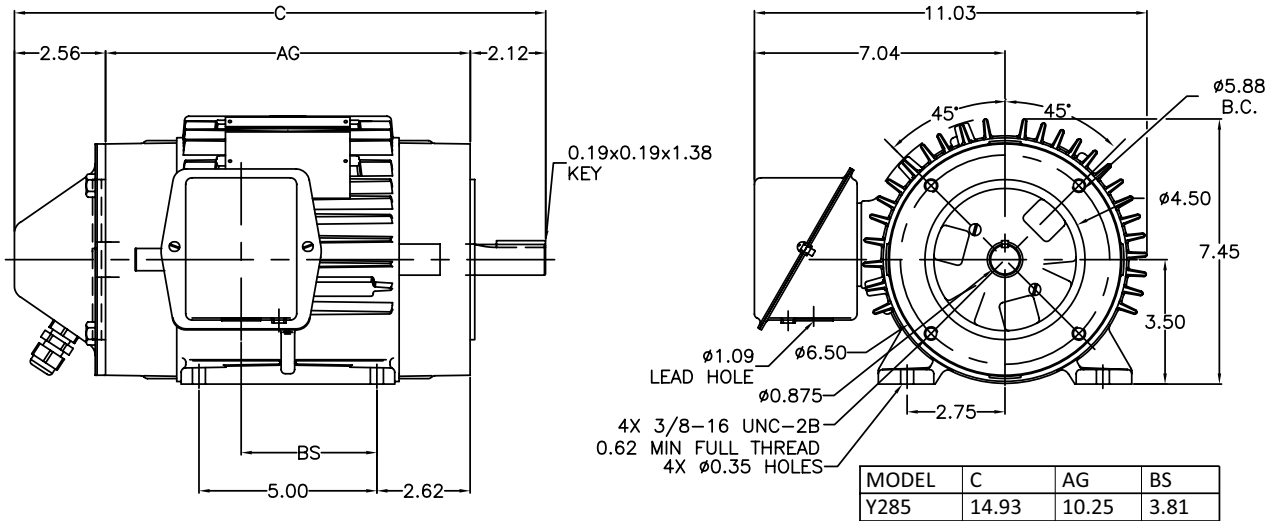
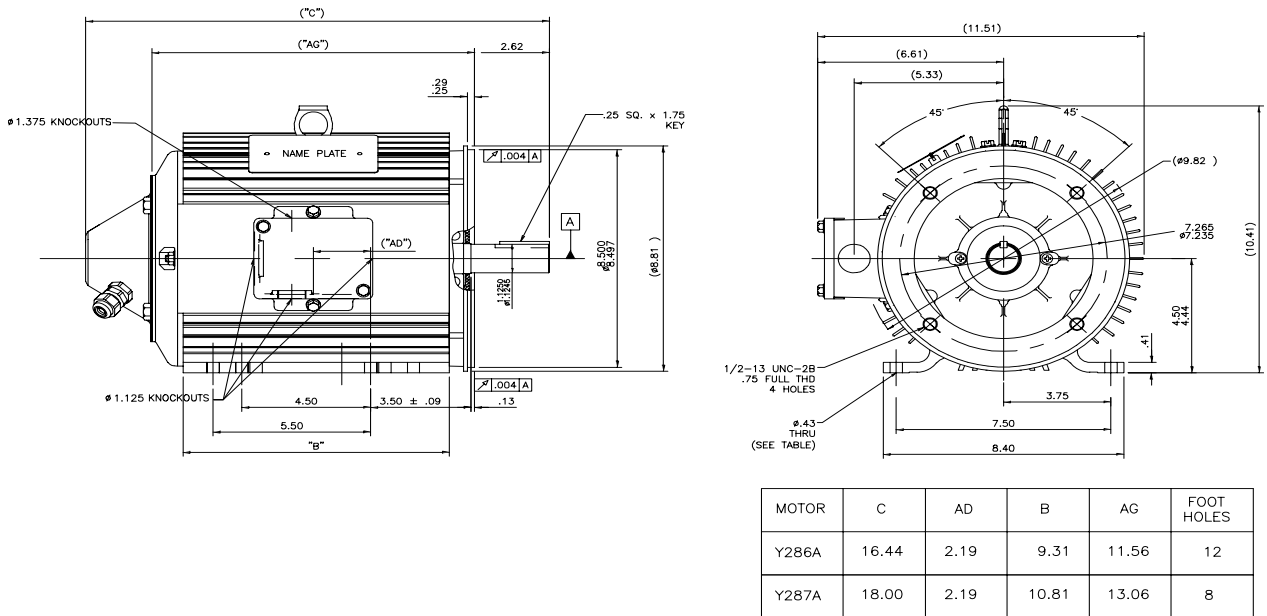


Figure 4 – Y286A, Y287A



Black Max® Vector Duty Motors

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.

575V Motor Specifications										
Part Number	Price	HP	Base RPM	Volts	Enclosure	NEMA Frame	Model No.	F.L. Amps	Weight (lb)	Footnotes
Y555	\$335.00	1/2	1800	575	TENV	56C	56H17T5311	0.64	28	T, S, 6, 13
Y556	\$400.00	1	1800	575	TENV	56C	56H17T5312	1.2	41	T, S, 6, 13
Y557	\$688.00	2	1800	575	TENV	145TC	145THTN6060	2.4	72	T, CI
Y558A	\$852.00	3	1800	575	TENV	182TC	182THTY7736	3.3	110	T, AL
Y559A	\$1,017.00	5	1800	575	TENV	184TC	184THTY7736	5.4	125	T, AL
Y560	\$1,336.00	7-1/2	1800	575	TENV	213TC	213HTL7736	8.4	146	T, AL
Y561	\$1,598.00	10	1800	575	TENV	215TC	215HTL7736	10.8	159	T, AL
Y562	\$1,901.00	15	1800	575	TENV	254TC	254HTL5736	16.0	250	T, AL, I
Y563	\$2,776.00	20	1800	575	TENV	256TC	256HTNA7036	20.8	300	T, CI, I

Footnotes:
 6 Bolt-on, removable base for footless mounting option
 13 F1 Mounting Only, cannot modify to F2
 AL Aluminum Frame Construction

Footnotes (continued):
 CI Cast Iron Frame Construction
 I Intermittent duty from 90-120 Hz operation
 S Steel Frame Construction

Footnotes (continued):
 T Thermostat overload

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.

Motor with Shaft-Mounted Encoder*

A Dynapar Model HS35 shaft-mounted encoder can be supplied pre-installed on the motors as shown in the price 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 mating connector.

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

Motor Accessories		
Part Number	Price	Description *
A772	\$808.00	Encoder kit, replacement, for Black Max encoder motors. Dynapar HS35 encoder, 5–26 VDC input, Line Driver output, 1024 pulses per revolution, 5/8-in bore.

* Replacement/spare encoder kit for Black Max Yxxx-A772 motors; can also be field installed on Black Max Yxxx motors without encoders.

Motor with Pre-installed Shaft-Mounted Encoder								
230/460V Motors						575V Motors		
Part Number	Price	HP	Part Number	Price	HP	Part Number	Price	HP
Y592-A772	\$1,166.00	1/4	Y544-A772	\$2,371.00	5	Y557-A772	\$1,586.00	2
Y534-A772	\$1,233.00	1/2	Y545-A772	\$2,234.00	7-1/2	Y558A-A772	\$1,750.00	3
Y535-A772	\$1,298.00	1	Y546-A772	\$2,879.00	7-1/2	Y559A-A772	\$1,916.00	5
Y536-A772	\$1,308.00	1	Y547-A772	\$2,496.00	10	Y560-A772	\$2,234.00	7-1/2
Y537-A772	\$1,373.00	1	Y548-A772	\$3,141.00	10	Y561-A772	\$2,491.00	10
Y538-A772	\$1,396.00	1-1/2	Y549-A772	\$2,800.00	15	Y562-A772	\$2,800.00	15
Y551-A772	\$1,586.00	2	Y552-A772	\$3,674.00	20	Y563-A772	\$3,674.00	20
Y540-A772	\$1,881.00	2	Y553-A772	\$3,917.00	25			
Y541A-A772	\$1,776.00	3	Y393-A772	\$4,303.00	30			
Y542-A772	\$2,110.00	3	Y555-A772	\$1,233.00	1/2			
Y543A-A772	\$1,948.00	5	Y556-A772	\$1,298.00	1			

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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						853		
Y515-A775								854		
Y516	365THFS8046	365TC						3.7 / 1.85	68	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 web site for current shipping method constraints by part number.		

Motor Accessories		
Part Number	Price	Description *
A774	\$790.00	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	\$790.00	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	\$4,897.00	40 (TEFC)	Y574-A774	\$8,019.00	75 (TEFC)
Y513-A775	\$5,953.00	40 (TEBC)	Y516-A775	\$9,291.00	75 (TEBC)
Y572-A774	\$5,767.00	50 (TEFC)	Y575-A774	\$10,683.00	100 (TEFC)
Y514-A775	\$6,674.00	50 (TEBC)	Y517-A775	\$12,562.00	100 (TEBC)
Y573-A774	\$7,179.00	60 (TEFC)			
Y515-A775	\$7,940.00	60 (TEBC)			

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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.

