

# PRODUCT INFORMATION PACKET



Model No: E451M2  
Catalog No: E451M2

General Purpose Motor, 15.0 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, S254T Frame, DP



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### Nameplate Specifications

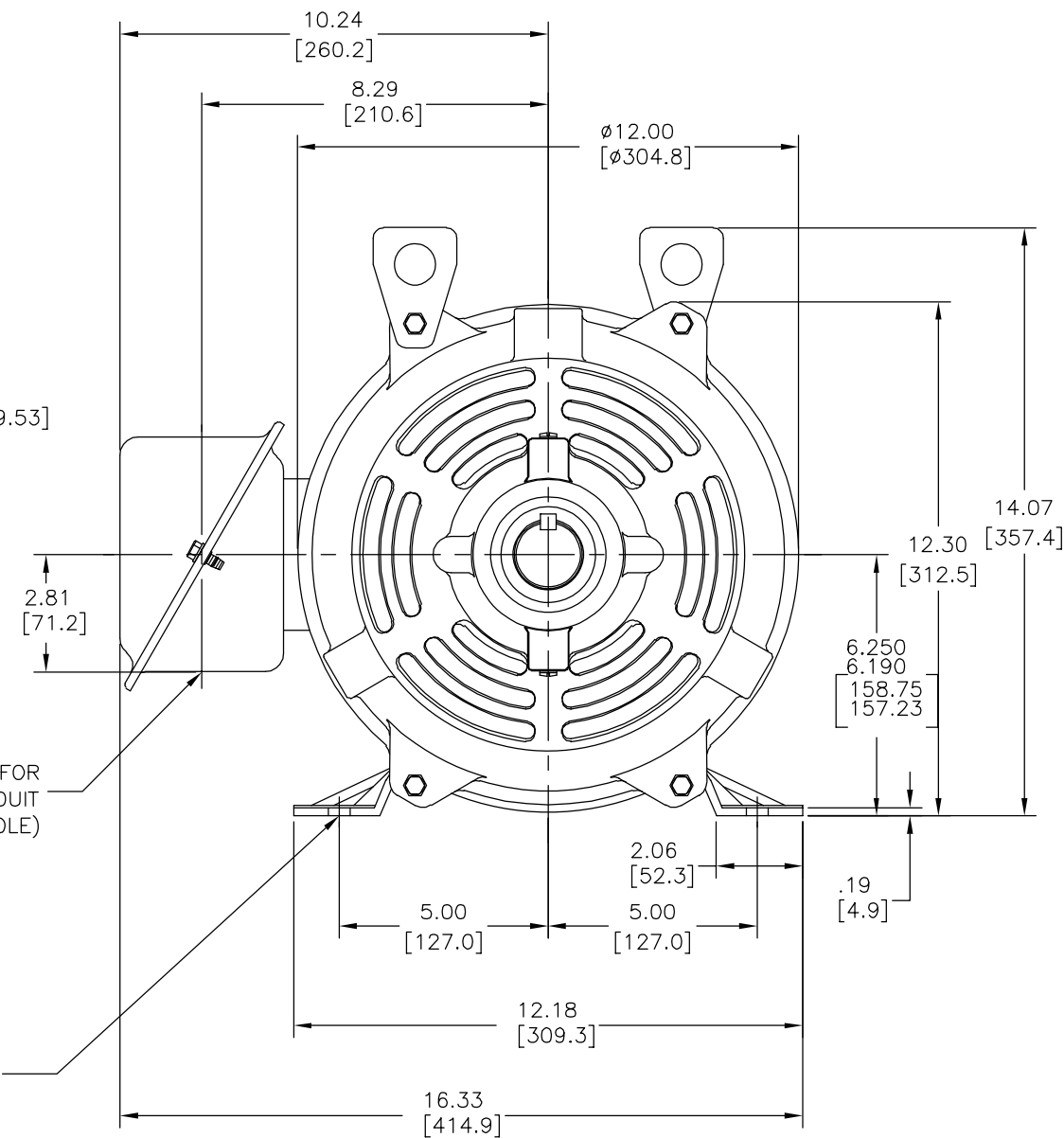
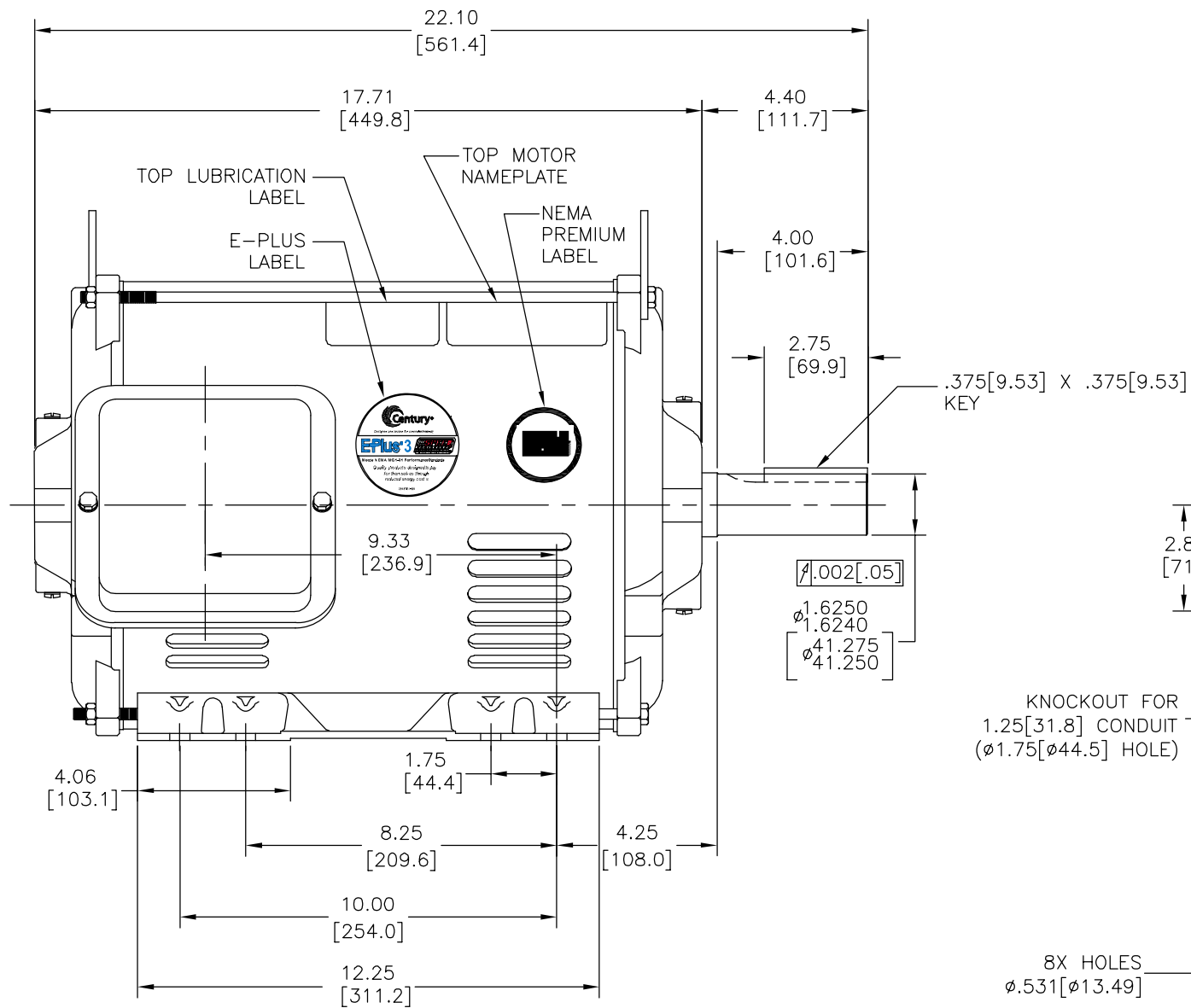
Phase	<b>3</b>	Output HP	<b>15.0 Hp</b>
Output KW	<b>11.2 kW</b>	Voltage	<b>230/460 V</b>
Speed	<b>1770 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>S254T</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Frequency	<b>60 Hz</b>	Current	<b>37.8/18.9 A</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>N</b>	Number of Speeds	<b>1</b>

### Technical Specifications

Electrical Type	<b>Three Phase</b>	Starting Method	<b>Across The Line</b>
Poles	<b>4</b>	Rotation	<b>Counterclockwise</b>
Mounting	<b>Rigid Base</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Rolled Steel</b>
Shaft Type	<b>Keyed</b>	Overall Length	<b>22.10 in</b>
Frame Length	<b>13.00 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>4.4 in</b>		
Outline Drawing	<b>E451M2-S01</b>	Connection Drawing	<b>80022801.PCX</b>

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REV	ECO	REV BY	DATE	APPD	DATE
B	0034568	JORTEGA	07-01-13	JORTEGA	07-01-13



- NOTES:
1. CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS.
  2. MOTOR IS SUITABLE FOR FIELD CONVERSION FROM AN F1 TO AN F2 CONDUIT BOX LOCATION.
  3. MOTOR VENTILATION: AIR INTAKE THROUGH OPENINGS IN THE FACE OF EACH BRACKET AND EXHAUSTED THROUGH THE VENT SLOTS ON EACH END OF THE SHELL.

MOTOR DESCRIPTION:  
 3 PHASE OPEN DRIPPROOF STEEL SHELL 254T OR 256T MOUNTING.  
 OTHER MOUNTING ORIENTATIONS ARE ACCEPTABLE; HOWEVER WHEN MOUNTED OTHER THAN HORIZONTAL; MOTOR WILL NOT BE DRIPPROOF AS DEFINED BY NEMA.

GEOMETRIC CHARACTERISTICS & SYMBOLS	
▭	FLATNESS
—	STRAIGHTNESS
∠	ANGULARITY
⊥	PERPENDICULARITY (SQUARENESS)
∥	PARALLELISM
○	ROUNDNESS (CIRCULARITY)
⊘	CYLINDRICITY
△	PROFILE OF ANY SURFACE
∩	PROFILE OF ANY LINE
↗	RUNOUT
⊕	TRUE POSITION
◎	CONCENTRICITY
≡	SYMMETRY
ASME Y14.5M 1994	

UNLESS OTHERWISE SPECIFIED DIM. TOLERANCES ARE AS FOLLOWS:	
INCH	±.1    .02    ±.005    ±.0005
mm	±0.5    ±0.13    ±0.013
ANG. ±.50 DEG	
REMOVE BURRS & BREAK SHARP EDGES:	
INCH	.003-.015
mm	0.1-0.4
CORNER FILLETS TO:	
INCH	.020
mm	0.5
MACHINE SURFACES:	
INCH	125
mm	3.2
METRIC DIMS. SHOWN IN [BRACKETS]	

DR BY:	I.LOPEZ	08-27-2012
APPD:	D.JAMORA	08-27-2012
THIRD ANGLE PROJECTION	⊕	EDS DATE 11-11-2011 FORMAT REV G
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DESCRIPTION	
MODEL-IHP OUTLINE	
SIZE	DWG NO
C	E451M2
SCALE	SHEET
NONE	1

Data Sheet

Date: 11/14/2023  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: RAMYA



E451M2

Submittal

Data @ 460 V

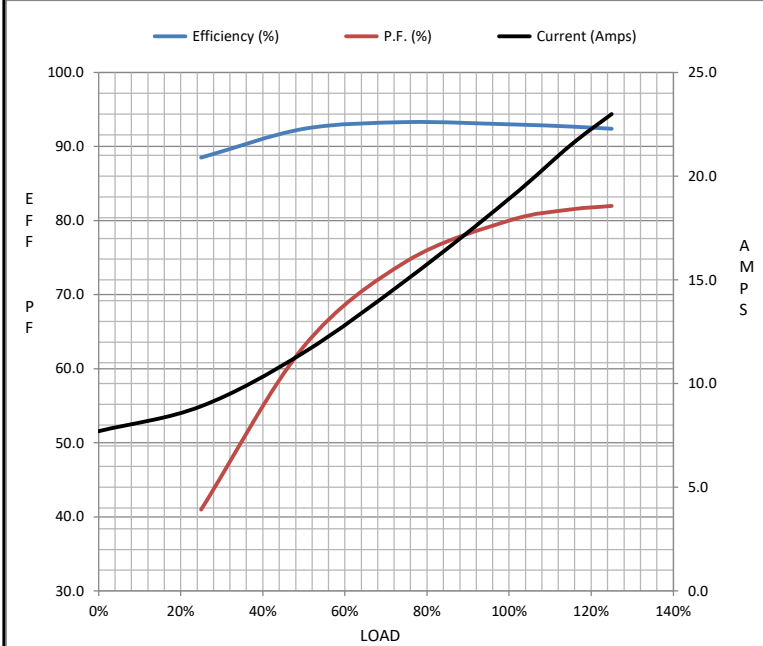
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	7.7	8.9	11.5	15.0	18.9	21.5	23.0	114
Torque (ft-lb)	0.00	11.0	22.0	33.0	44.5	51.0	60.0	84.1
RPM	1800	1792	1785	1780	1770	1,765	1740	0
Efficiency (%)		88.5	92.4	93.3	93.0	92.7	92.4	
P.F. (%)	0.0	41.0	63.0	74.5	80.0	81.5	82.0	33.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1560	1770	1800
Current (Amps)	114	91.0	75.0	18.9	7.7
Torque (ft-lb)	84.1	72.0	117	44.5	0.00

Information Block				
HP	15.0			
Sync. RPM	1800			
Frame	254			
Enclosure	DP			
Construction	TDR			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	21 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	2.30 Lb-F <sup>2</sup>			
Ref Wdg	BGR4T01 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	VARIABLE 6:1			
Outline Dwg	E451M2-S01			
Conn. Diag	80022801			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2660	0.2470	1.3300	2.2800	30.4000



Speed - Torque Curve

