

# PRODUCT INFORMATION PACKET

Model No: 284TSTDR16003

Catalog No: E1008

XRI® General Purpose General Purpose Motor, 30 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V,  
3600 & 3000 RPM, 284TS Frame, DP



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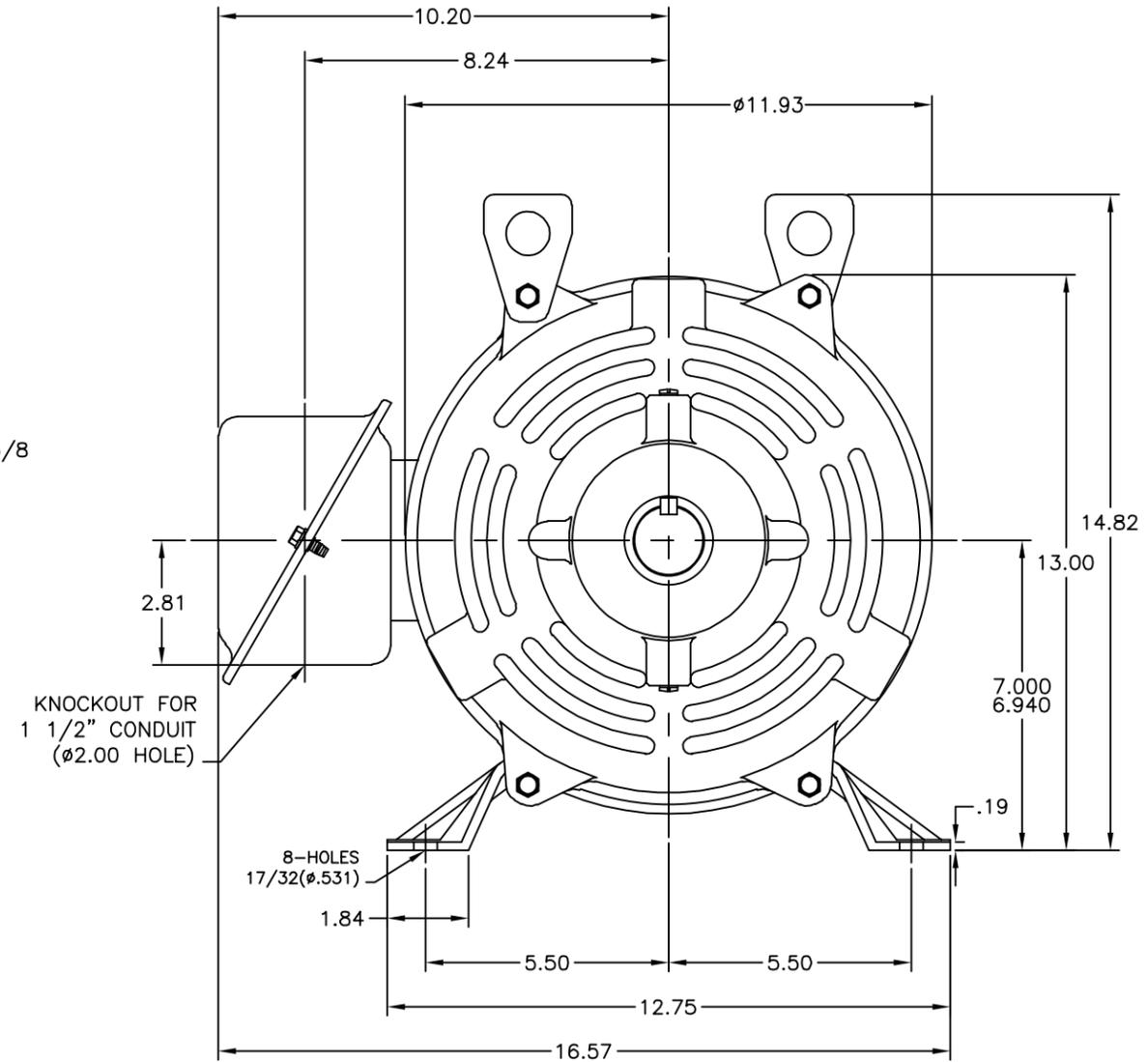
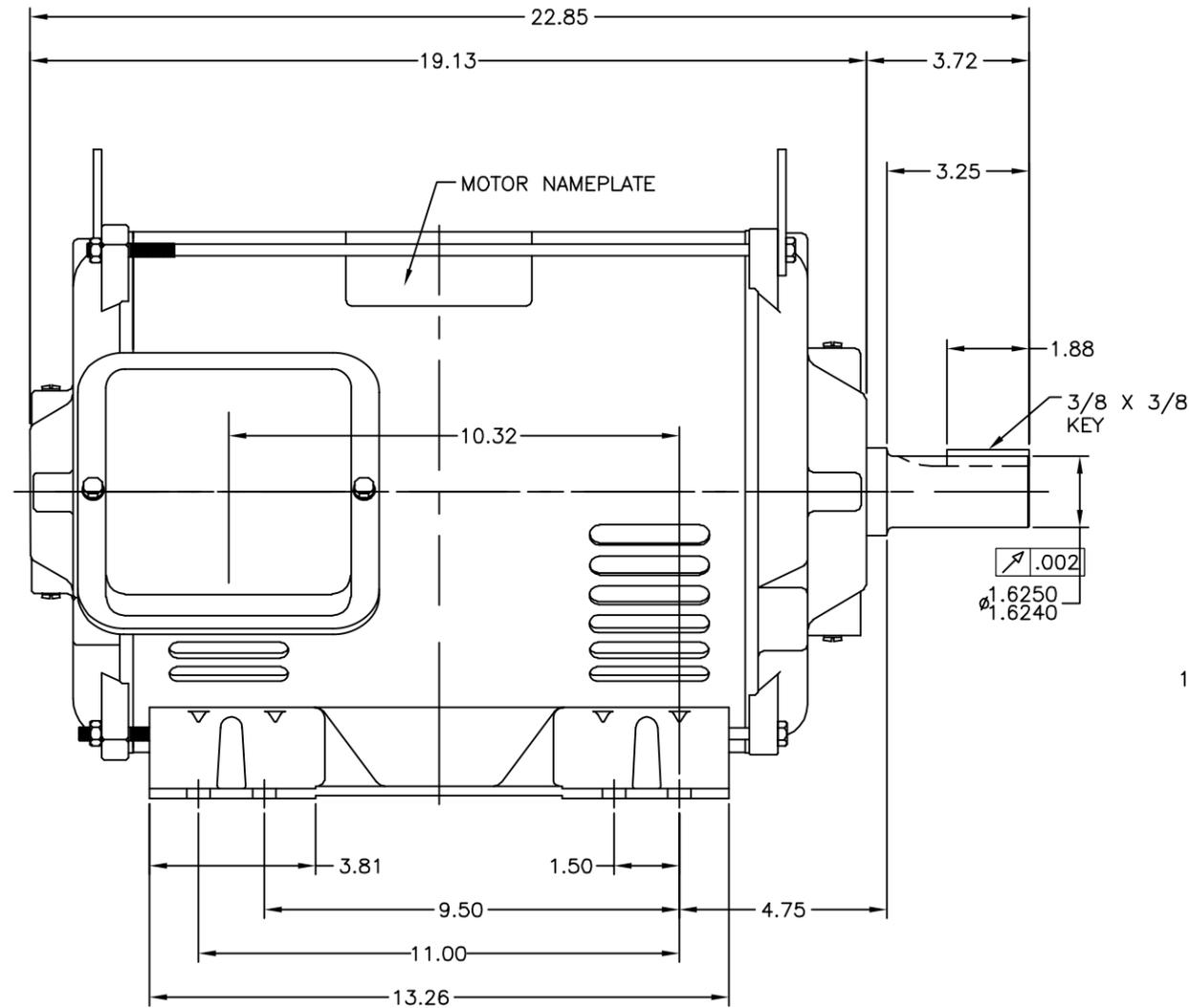
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>30 &amp; 30 Hp</b>
Output KW	<b>22.4 &amp; 22.4 kW</b>	Voltage	<b>230/460 &amp; 200/400 V</b>
Speed	<b>3535 &amp; 2915 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>284TS</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>91.7 &amp; 89.5 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>69.0/34.5 &amp; 80.2/40.1 A</b>	Power Factor	<b>88.8</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>F</b>
Drive End Bearing Size	<b>6213</b>	Opp Drive End Bearing Size	<b>6207</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>22</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>0 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Rolled Steel</b>
Shaft Type	<b>TS</b>	Overall Length	<b>22.85 in</b>
Shaft Diameter	<b>1.625 in</b>	Shaft Extension	<b>3.25 in</b>
Assembly/Box Mounting	<b>F1 ONLY</b>		
Outline Drawing	<b>18722701-001-S01</b>	Connection Drawing	<b>80022802</b>

REV	ECO	REV BY	DATE	APPD	DATE
B	0003531	K.PALOMO	01-07-09	C.CONTRERAS	01-07-09

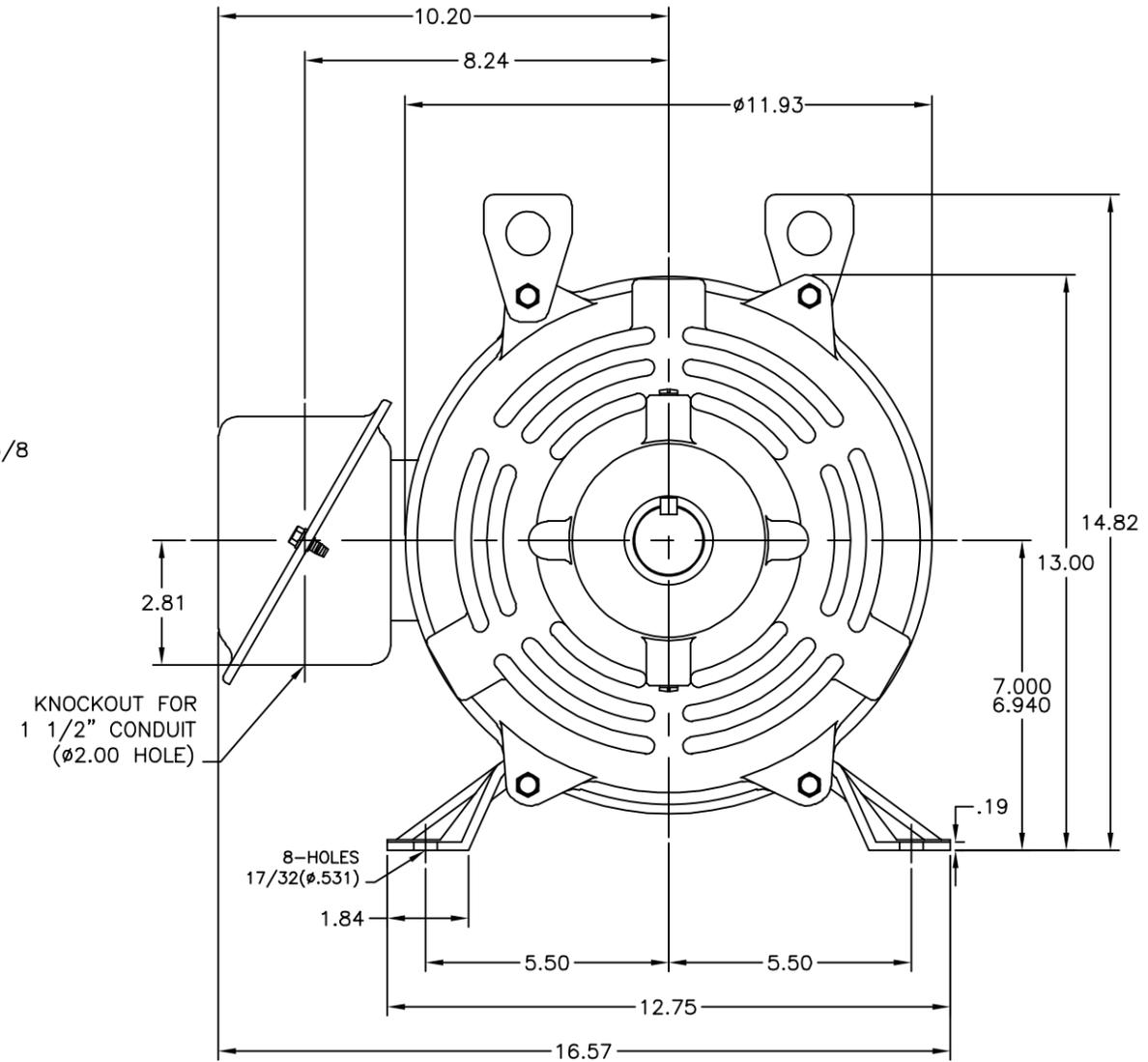
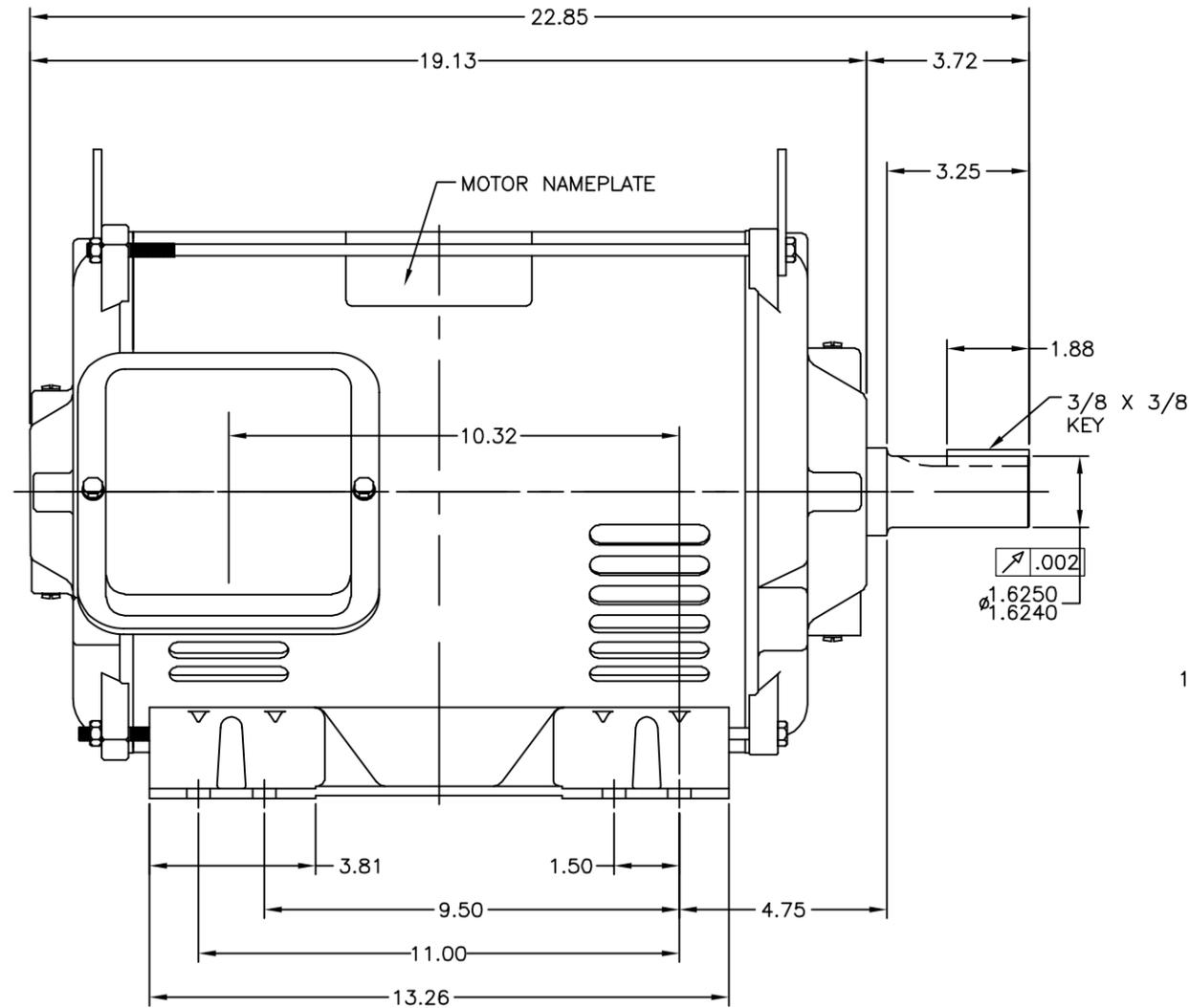


- NOTES:
- 1- CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS.
  - 2- MOTOR IS SUITABLE FOR FIELD CONVERSION FROM AN F1 TO AN F2 CONDUIT BOX LOCATION.
  - 3- MOTOR VENTILATION: AIR INTAKE THROUGH OPENINGS IN THE FACE OF EACH BRACKET AND EXHAUSTED THROUGH THE VENT SLOTS ON EACH END OF THE SHELL.

MOTOR DESCRIPTION:  
 3 PHASE OPEN DRIPPROOF STEEL SHELL 284TS OR 286TS 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	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: AJB	01-19-04	AC Smith Innovation has a name. ELECTRICAL PRODUCTS COMPANY A DIVISION OF A. O. SMITH CORPORATION
		APPD: DVB	01-19-04	
		THIRD ANGLE PROJECTION	EDS DATE EDS DATE FORMAT REV F	SIZE D DWG NO 18722701-001
		CONFIDENTIAL: THIS DRAWING AND ITS INFORMATION ARE THE EXCLUSIVE AND CONFIDENTIAL PROPERTY OF A.O. SMITH CORP. AND ARE NOT TO BE DISCLOSED, DUPLICATED, DISTRIBUTED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF A.O. SMITH CORP. -ALL RIGHTS RESERVED. ASME Y14.5M 1994		SCALE NONE SHEET 1

REVISION: ECO	REVISADO POR: K.PALOMO	FECHA: 01-07-09	APROBADO POR: C.CONTRERAS	FECHA: 01-07-09
B	0003531			

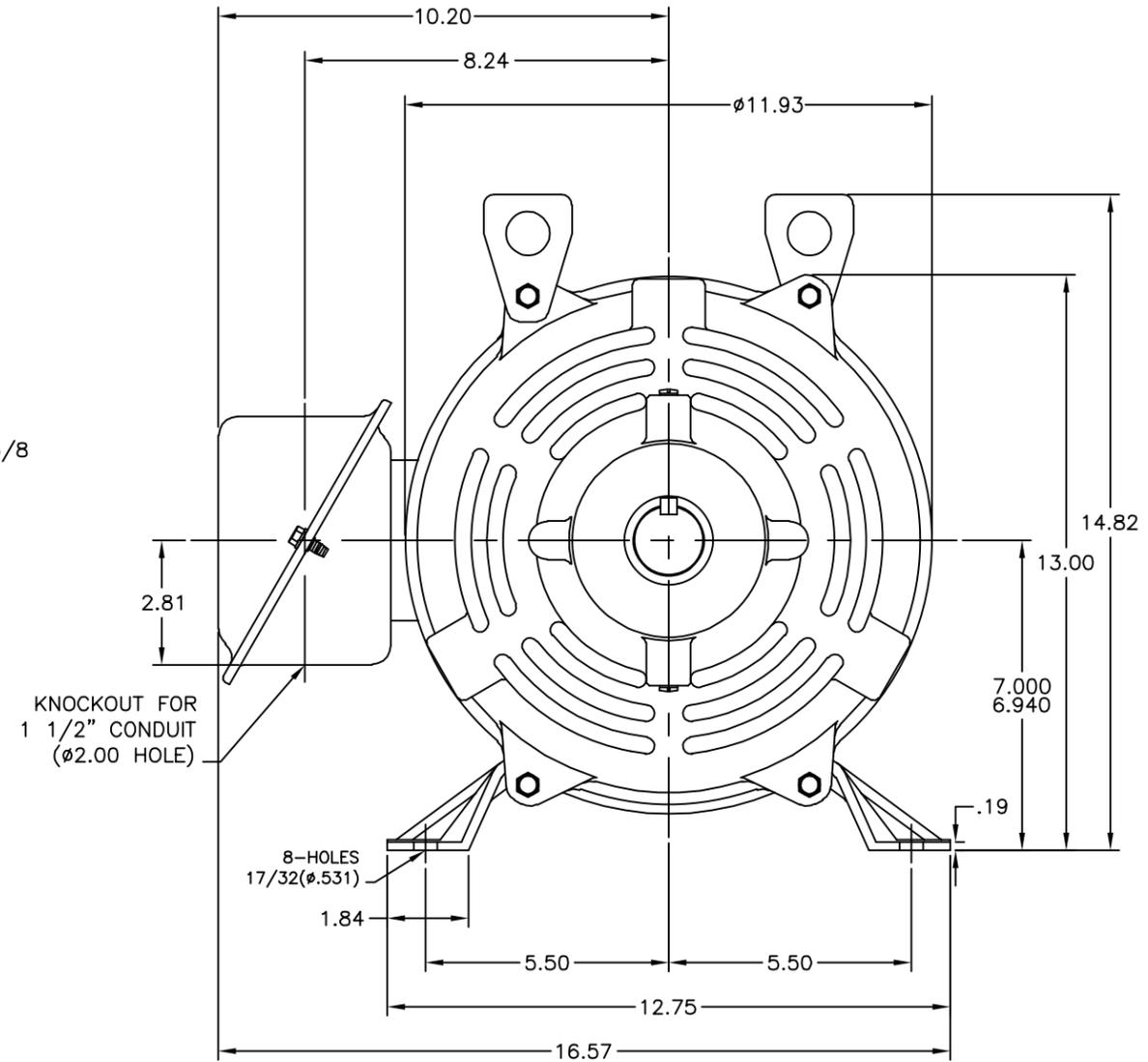
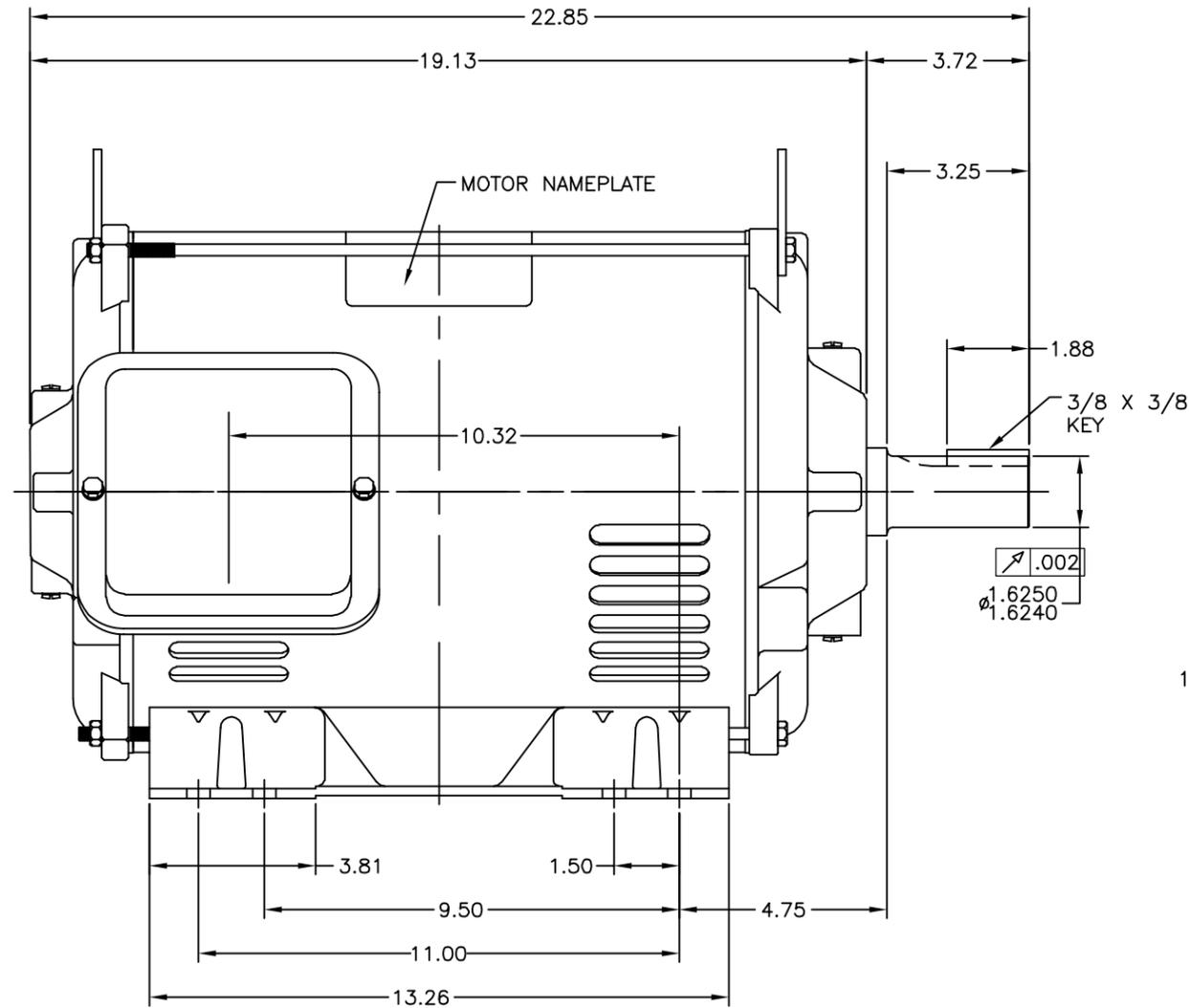


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CARACTERÍSTICAS DE GEOMETRÍA Y SIMBOLOS: ▽ PLANICIDAD — RECTITUD ∠ ANGULARIDAD ⊥ PERPENDICULARIDAD (A ESCUADRA) // PARALELISMO ○ REDONDEZ (CIRCULARIDAD) ⌀ CILINDRICIDAD ≡ PERFIL DE CUALQUIER SUPERFICIE ⤴ PERFIL DE CUALQUIER LINEA ↗ VARIACION ⊕ POSICION REAL ⊙ CONCENTRICIDAD = SIMETRIA	A MENOS QUE SE ESPECIFIQUE DE OTRA MANERA, LAS TOLERANCIAS DE LAS DIMS, SON LAS SIGUIENTES: PULG X XX XXX XXXX mm ±0.5 ±0.13 ±0.013 ANG ±.50 GRADOS ELIMINAR REBABAS Y ORILLAS FILOSAS DEL BORDE. PULG .003-.015 mm 0.1-0.4 FILETEAR ESQUINA: PULG .020 mm 0.5 MAQUINAR SUPERFICIES PULG 125 mm 3.2 DIMS METRICAS MOSTRADAS [PARENTESIS]	DIBUJADO POR: AJB	01-19-04	A.O. SMITH Innovation has a name. ELECTRICAL PRODUCTS COMPANY A DIVISION OF A. O. SMITH CORPORATION	
		APROBADO POR: DVB	01-19-04		DESCRIPCION: OUTLINE
TERCER ANGULO DE PROYECCION		CONFIDENCIAL: ESTE DIBUJO Y SU INFORMACION SON PROPIEDAD DE USO EXCLUSIVO Y CONFIDENCIAL DE A.O. SMITH CORP. Y NO DEBERAN SER REVELADOS, DUPLICADOS, DISTRIBUIDOS O USARSE DE OTRA MANERA SIN EL CONSENTIMIENTO ESCRITO DE A.O. SMITH CORP. -TODOS LOS DERECHOS RESERVADOS. ASME Y14.5M 1994	FECHA EDS: EDS DATE REV. FORMATO: F	TAMAÑO: D	NUMERO DE DIBUJO: 18722701-001
		ESCALA: NONE	HOJA: 1		

版本	ECO	编制	日期	批准	日期
B	0003531	K.PALOMO	01-07-09	C.CONTRERAS	01-07-09



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形位公差 □ 平面度 ⊥ 垂直度 ∠ 倾斜度 // 平行度 R 圆度 φ 圆柱度 面轮廓度 线轮廓度 ⤴ 圆跳动 ⊕ 位置度 ⊙ 同轴度 ≡ 对称度	除另有注明 尺寸公差如下: 英寸 X XX XXX XXXX 毫米 ±.1 ±.02 ±.005 ±.0005 毫米 ±0.5 ±0.13 ±0.013 角度 ±.50 度 清理毛刺和尖棱 英寸 .003-.015 毫米 0.1-0.4 内圆角 英寸 .020 毫米 0.5 表面粗糙度 英制 125 米制 3.2 米制尺寸显示在 [ ]	绘图: AJB 批准: DVB 第三角投影 机密: 本图纸及相关信息所有权归A. O. SMITH公司所有。未经A. O. SMITH公司书面授权, 不得泄露、复制、传播或作其他用途。一版权所有 ASME Y14.5M 1994	01-19-04 01-19-04 图框格式发布日期 EDS DATE 图框格式版本 F 名称 OUTLINE 图幅 D 图号 18722701-001 比例 NONE 页号 1	ELECTRICAL PRODUCTS COMPANY A DIVISION OF A. O. SMITH CORPORATION
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**P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311**

**CERTIFICATION DATA SHEET**

**CUSTOMER:**  
**ORDER #:**  
**CONN. DIAGRAM:** 80022802  
**OUTLINE:** 18722701-001  
**WINDING #:** BIR2T01 3

**CUSTOMER PO#:**  
**MODEL #:** 284TSTDR16003 AA  
**CUSTOMER PART #:**  
**MOUNTING:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30&30	22.4&22.4	3600	3535&2915	284TS	DP	F	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	230/460&200/400	69.0/34.5&80.2/40.1	ACROSS THE LINE	CONTINUOUS	F4	1.15/1.15	40

FULL LOAD EFF:	91.7&89.5	3/4 LOAD EFF:	91.6	1/2 LOAD EFF:	90.2	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	88.8&90.0	3/4 LOAD PF:	88.5	1/2 LOAD PF:	83.4	90.2		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
44.6 LB-FT	388 / 194	141 LB-FT 0 %	266 LB-FT 0 %	42

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
0 dBA	10 dBA	0 LB-FT^2	0 LB-FT^2	0 SEC.	0	340 LBS.

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	ROLLED STEEL
6213	6207						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

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<b>INVERTER TORQUE:</b> NONE <b>INV. HP SPEED RANGE:</b> NONE
<b>ENCODER:</b> NONE NONE NONE NONE NONE PPR
<b>BRAKE:</b> NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz

**PREPARED BY:** Dinesh  
Suddula **DATE:**  
03/11/2019 04:24:41 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.