marathon®

Explosion Proof Motors

Model No: 286TTGCD16577
Catalog No: E507A

Explosion Proof Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286T Frame, EPFC

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Product Information Packet: Model No: 286TTGCD16577, Catalog No: E507A Explosion Proof Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**20 Hp**
Output KW	**14.9 kW**	Voltage	**230/460 V**
Speed	**1180 r/min**	Synchronous RPM	**1200 r/min**
Service Factor	**1.15**	Frame	**286T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**91.7 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**51.0/25.5 A**
Power Factor	**79.8**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6311**
Opp Drive End Bearing Size	**6210**	UL	**UL Listed And CSA Certified**
CSA	**Y**	CE	**N**
IP Code	**54**	Number of Speeds	**1**
Hazardous Location	**DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C**		

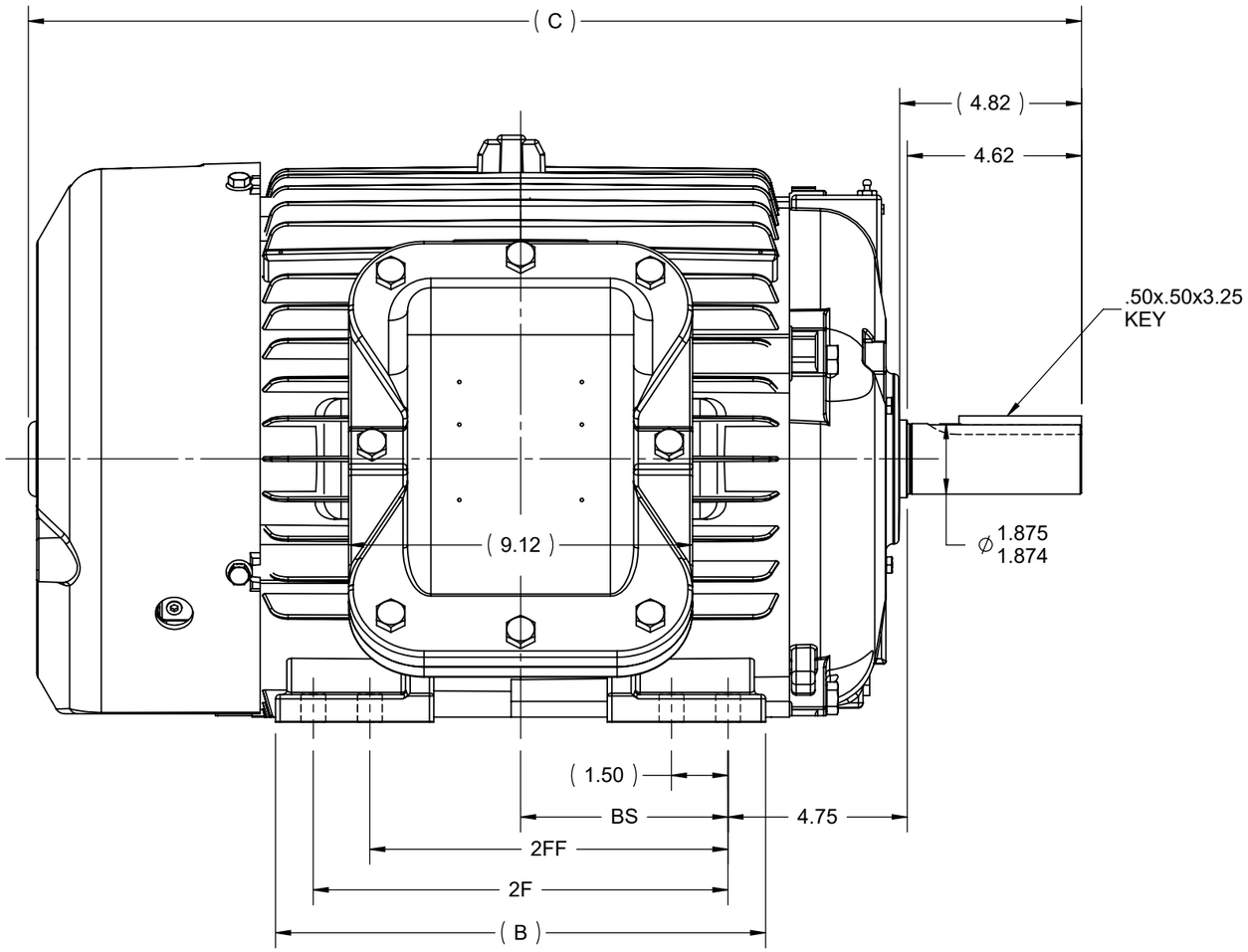
Technical Specifications

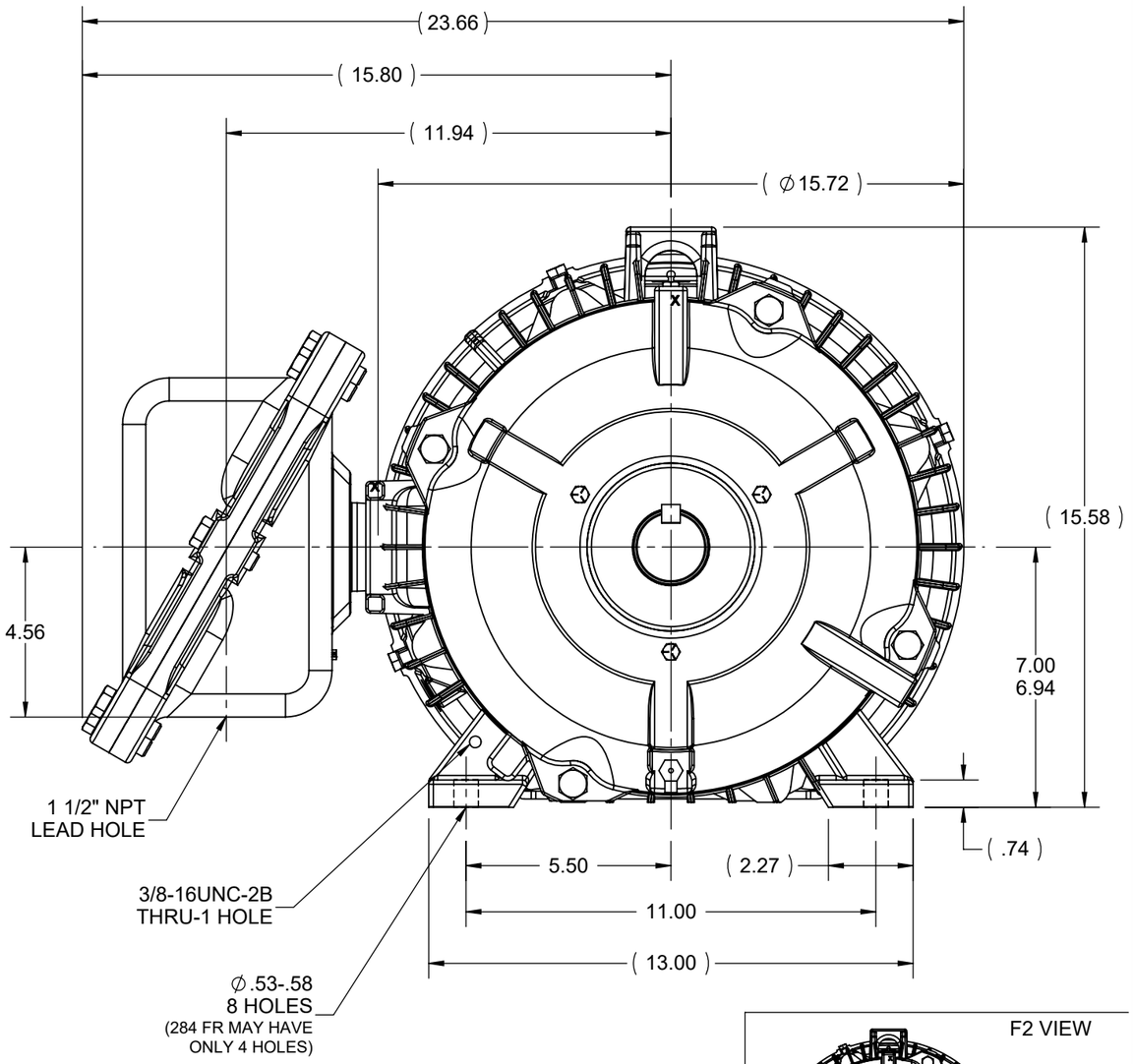
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**.5004 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 10:1**		

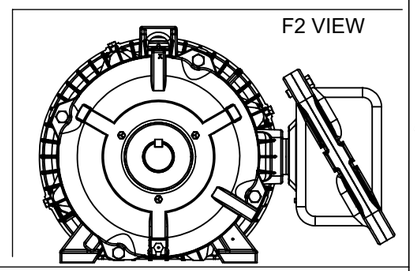
Drawings

Connection Drawing	**EE7308AD**	Outline Drawing	**SS311106-1425**

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NOTES:
1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. THIS MODIFICATION CAN BE PERFORMED ONLY BY THE ORIGINAL EQUIPMENT MANUFACTURER OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATORIES INC. CATEGORY PTKQ, TITLED "MOTORS AND GENERATORS, REBUILT FOR USE IN HAZARDOUS LOCATIONS".
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	BS	2F	2FF	
1275	284T	12.50	26.43	4.75	9.50	---	
1425	284/6T	13.00	27.93	5.50	11.00	9.50	

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	07/24/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	07/24/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / INCH 5.1 / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	HLB
DATE	10/10/2002
APPROVED BY	DD
DATE	10/10/2002
REFERENCE	
THIRD ANGLE PROJECTION	

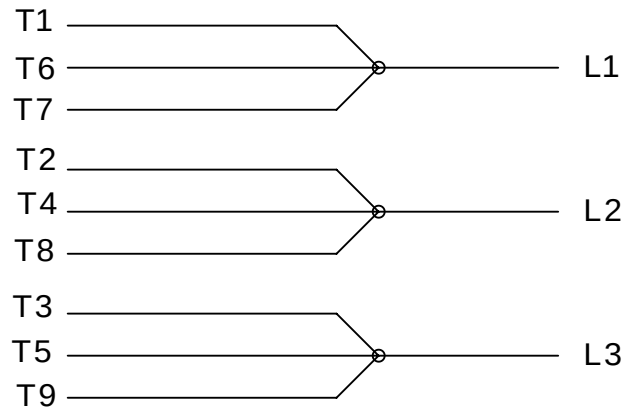
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DESCRIPTION
OUTLINE
280T FR. - BB - STD - 12.50 LAM

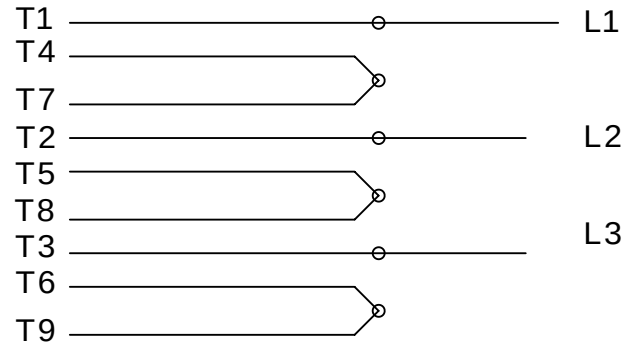
MATERIAL | PROCESS/FINISH

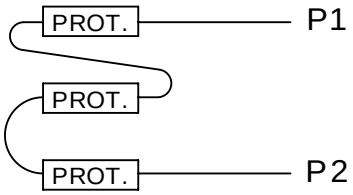
SIZE B | DRAWING NUMBER SS311106 | SHEET 1 OF 1

LOW VOLTAGE

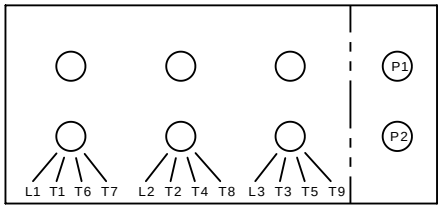


HIGH VOLTAGE

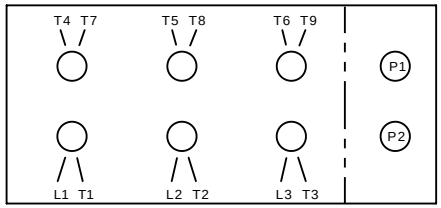


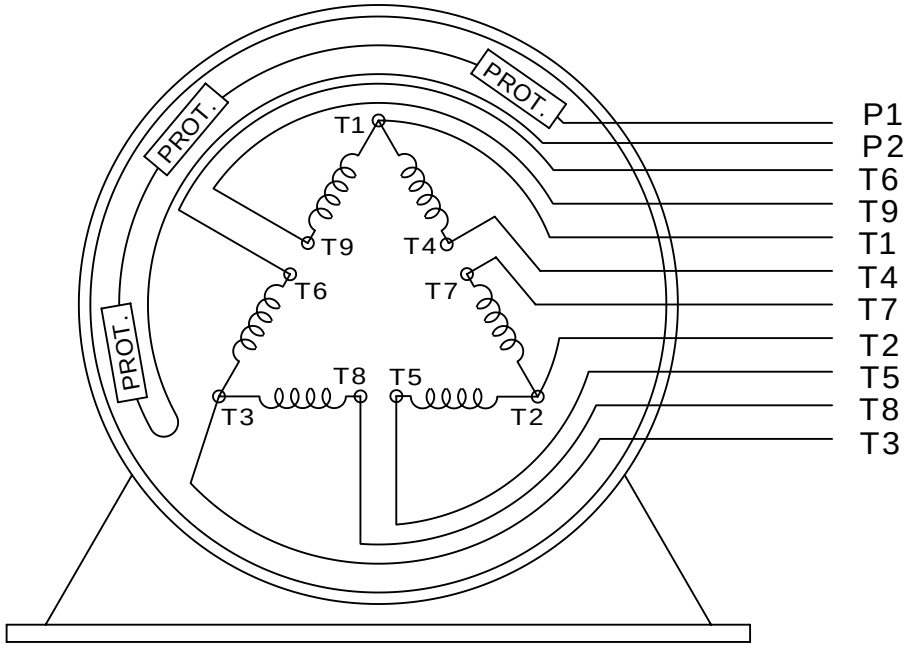


LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

DRAWING REVISION M	REVISION BY SB	REV DATE/© DATE 06/03/2026	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY MJD	marathon™
REQUEST NUMBER CR-0026504	APPROVED BY RMS	DATE 06/03/2026		DATE 12-19-1997	
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED				APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL
				DATE 01-07-1998	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE A / DRAWING NUMBER ee7308ad / SHEET 1 OF 1

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P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: EE7308AD
OUTLINE: SS311106-1425
WINDING: HA31806015 NONE 2
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 286TTGCD16577
CAT #: E507A
CUSTOMER PART #:
MOUNTING: F1 ONLY
FAN: 504205B

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1200	1180	286T	EPFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	51/25.5	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	92.2	1/2 LD EFF	91.5	GTD EFF	ELECT. TYPE	
F.L. PF	79.8	3/4 LD PF	74.5	1/2 LD PF	63.0	91.0	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
89.0 LB-FT	145	180 LB-FT 202%	235 LB-FT 264%	65	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
0 dBA	9 dBA	0.00 LB-FT²	0 LB-FT²	0 SEC.	2	0 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	UM SEVERE	ROOF CL I GR CD CL II	NO	NONE	UE - RAL 5003 (EPOX

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6311	BALL 6210	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.313	0.183	0.937	1.461	21.409	0.080	ODE

*
N
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*

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE **PPR**

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE **HZ:**

PREPARED BY:
DATE: 1/30/2023

FORM: 3531 REV_4 2/27/06

UL: NO LETTER - ALL BRANDS-UL LISTED AND CSA CERTIFIED