

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 286TTFCD6028  
Catalog No: GT1231A  
30,1800,TEFC,286TC,3/60/230/460  
Totally Enclosed Fan Cooled (TEFC)



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**REGAL**<sup>®</sup>



### Nameplate Specifications

Output HP	<b>30 Hp</b>	Output KW	<b>22.4 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>72.5/36.5 A</b>	Speed	<b>1775 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>93.6 %</b>	Duty	<b>Continuous</b>
Insulation Class	<b>F</b>	Design Code	<b>B</b>
KVA Code	<b>G</b>	Frame	<b>286TC</b>
Enclosure	<b>Totally Enclosed Fan Cooled</b>	Overload Protector	<b>No</b>
Ambient Temperature	<b>40 °C</b>	Drive End Bearing Size	<b>6311</b>
Opp Drive End Bearing Size	<b>6211</b>	UL	<b>Listed</b>
CSA	<b>Y</b>	CE	<b>Y</b>
IP Code	<b>55</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Wye Start Delta Run Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</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>Cast Iron</b>	Shaft Type	<b>T</b>
Frame Length	<b>12.91 in</b>	Shaft Diameter	<b>1.875 in</b>
Shaft Extension	<b>4.62 in</b>	Assembly/Box Mounting	<b>F1/F2 Capable</b>
Outline Drawing	<b>SS620706</b>	Connection Diagram	<b>A-EE7308AA</b>

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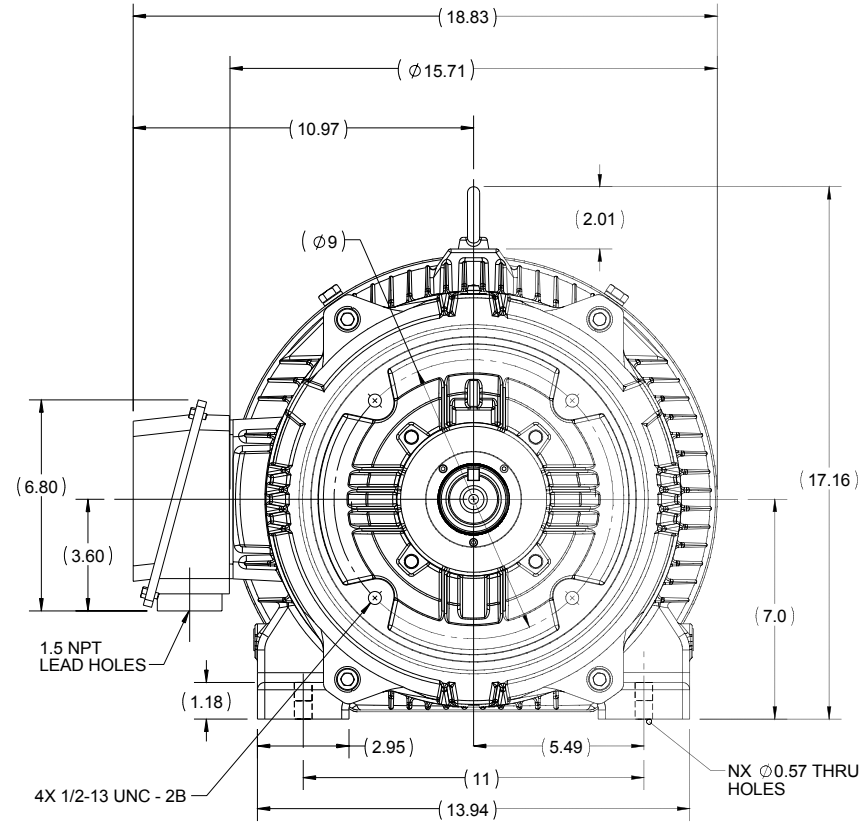
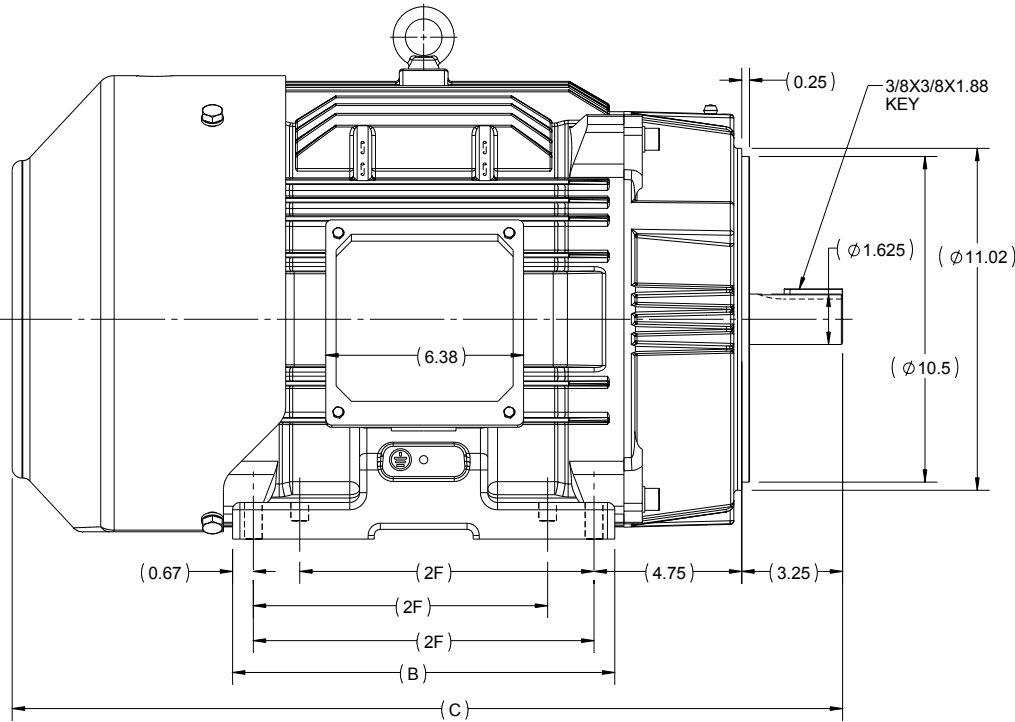
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# OUTLINE

B

B



A

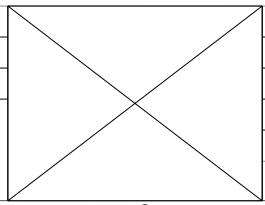
A

286	12.32	26.77	11	8
284	10.82	25.28	9.5	4
FRAME	B	C	2F	N

4

DRAWING REVISION A	REVISION BY UDAY	DATE 22/09/2015
ECO ECO-0084890	APPROVED BY SBD	DATE 22/09/2015
ECO DESCRIPTION NEW DRAWING		
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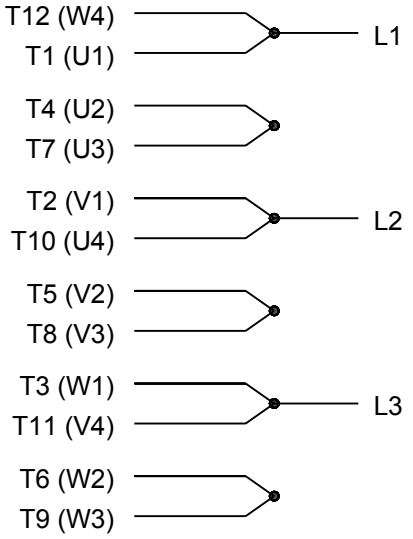
DRAWN BY SMAR
DATE 28/09/2015
APPROVED BY SBD
DATE 28/09/2015
REFERENCE
THIRD ANGLE PROJECTION

REGAL-BELOIT CORPORATION	
DESCRIPTION <b>OUTLINE</b>	
284/286TSC FR-TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS620706
	SHEET 1 OF 1

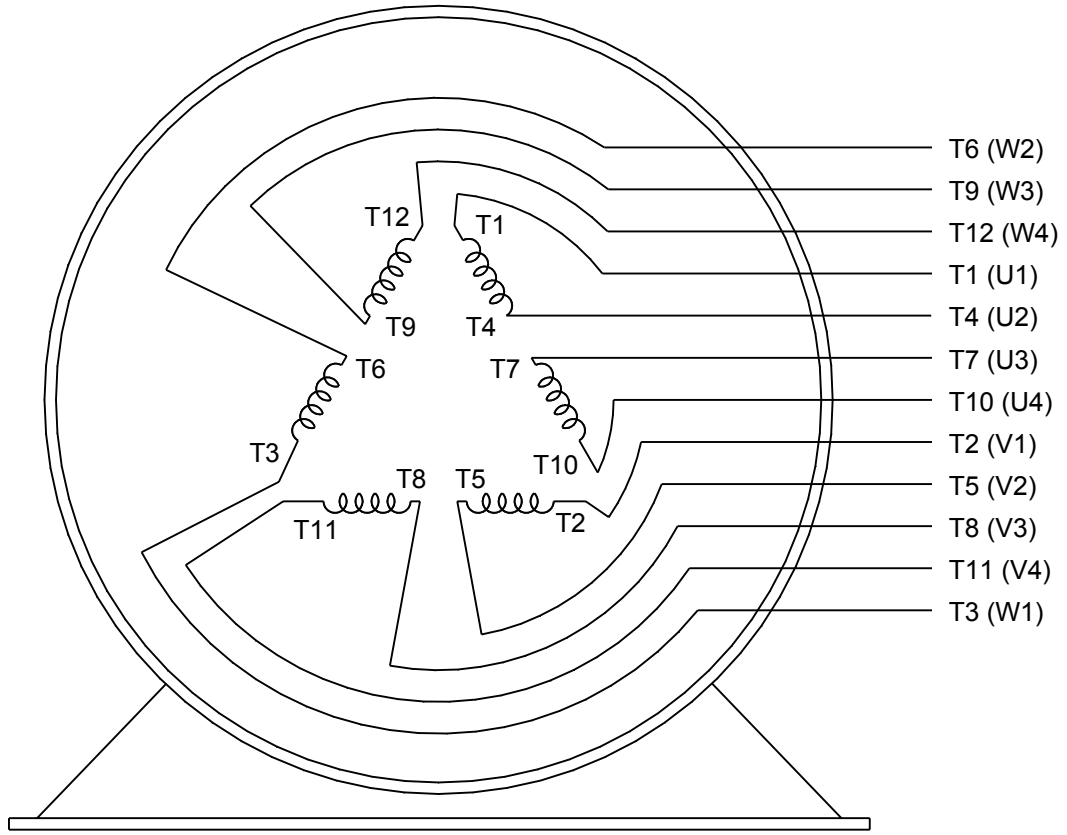
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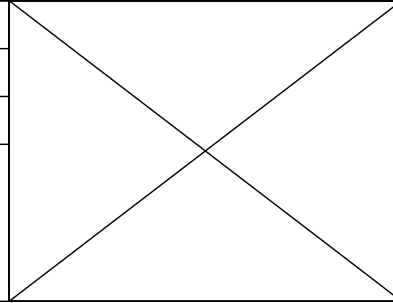
### LOW VOLTAGE



### HIGH VOLTAGE



DRAWING REVISION <b>K</b>	REVISION BY <b>AJW</b>	DATE <b>07-17-2015</b>
ECO <b>ECO-0081632</b>	APPROVED BY <b>T. VUE</b>	DATE <b>07-17-2015</b>
ECO DESCRIPTION <b>REV'D IEC MARKINGS PER IEC 60034-8</b>		
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DRAWN BY <b>LZ</b>	<b>Regal Beloit America, Inc.</b>	
DATE <b>01-12-1994</b>		
APPROVED BY <b>GK</b>	DESCRIPTION <b>CONN DIAGRAM-EXTERNAL</b> <b>3Ø-2/1 DELTA-12 LEADS</b>	
DATE <b>01-14-1994</b>		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7308AA</b>
		SHEET <b>1 OF 1</b>



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER P.O. #: \_\_\_\_\_  
 ORDER #: \_\_\_\_\_  
 A-EE7303AA  
 CONN. DIAGRAM: \_\_\_\_\_  
 B-SS620706  
 OUTLINE: \_\_\_\_\_  
 HE31804006 NONE 2  
 WINDING: \_\_\_\_\_  
 CUSTOMER PART #: \_\_\_\_\_  
 MOUNTING: F1/F2 CAPABLE  
 SPEED: \_\_\_\_\_

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	30	22.4	1800	1775	286TC	TEFC	TEFC	TFC	G	B
PH	HZ	60/50	230/460#190/380	72.5/36.5#73/36.5	LINE OR INVERTER	CONT	F	1.15	40	3300	
	F.L. EFF	93.6	3/4 LD EFF	93.6	1/2 LD EFF	93.0	GTD EFF	93.0	ELECT. TYPE		
	F.L. PF	83.0	3/4 LD PF	78.0	1/2 LD PF	67.5	93.0	SQ CAGE INV RATED			
	F.L. TORQUE	LR AMPS @ 460 V	LR TORQUE	178 LB-FT	200%	227 LB-FT	255%	F.L. RISE (°C)			
	89.0 LB-FT	217						65			
	@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT				
	68 DBA	77 DBA	5.7 LB-FT²	225 LB-FT²	20 SEC.	2	600 LB.				

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY NO	HAZARDOUS LOCATION	DRIP COVER NO	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL		NONE		NONE	BLUE (ENAMEL)
BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL		
DE BALL 6311	BALL POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON		
6210								

THEMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.168	0.111	0.617	0.851	16.727	0.150	ODE

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

ENCODER: NONE  
 NONE  
 NONE  
 BRAKE: NONE  
 NONE  
 NONE  
 NONE PPR

PREPARED BY: FAREEDA DUDEKULA  
 DATE: 5/3/2018

FORM: 3531 REV. 4 2/27/06

UL: V-INS, CONST UL REC  
 FT-LB: NA  
 VOLTAGE: NONE  
 HZ:

Data Sheet

Date: 5/3/2018

2861TFCD6028

Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_



Submital

Submitted by: FAREEDA DUDEKULA

Data @ 460 V

Motor Load Data

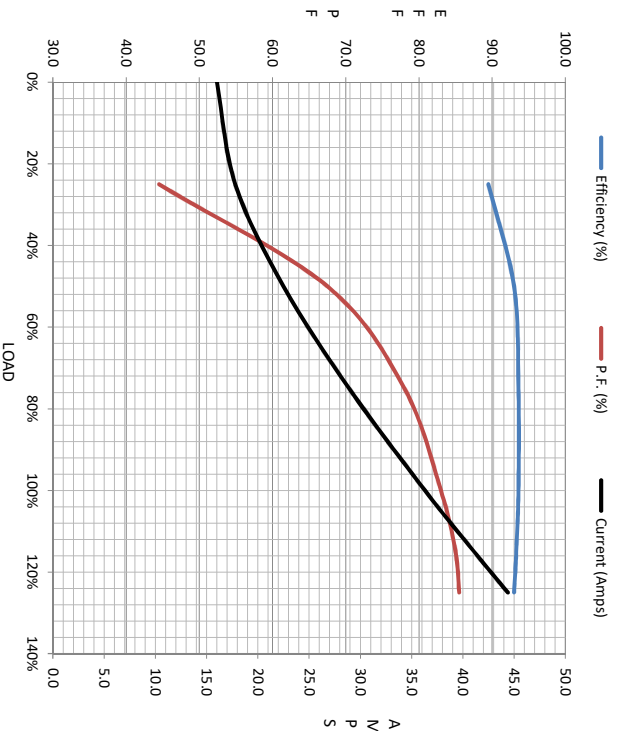
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	16.0	17.8	22.5	28.9	36.3	41.1	44.4	217
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	102	111	178
RPM	1800	1795	1788	1782	1775	1,770	1768	0
Efficiency (%)		89.5	93.0	93.6	93.6	93.3	93.0	
P.F. (%)	5.0	44.5	67.5	78.0	83.0	85.0	85.5	36.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1775	1800
Current (Amps)	217	180	129	36.3	16.0
Torque (ft-lb)	178	151	227	89.0	0.00

Information Block

HP	30.0			
Sync. RPM	1800			
Frame	2861821TFC6080			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk²	5.7 Lb-Ft²			
Ret Wdg	HE31804006 NONE			
Sound Pressure @ 1M	68 dbA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS620706			
Conn. Diag	A-EE7308AA			
Additional Specifications:				
0				
0				
R1	R2	X1	X2	Xm
0.1680	0.1110	0.6170	0.8510	16.7270
EQUIV CKT (OHMS / PHASE)				



Speed - Torque Curve

