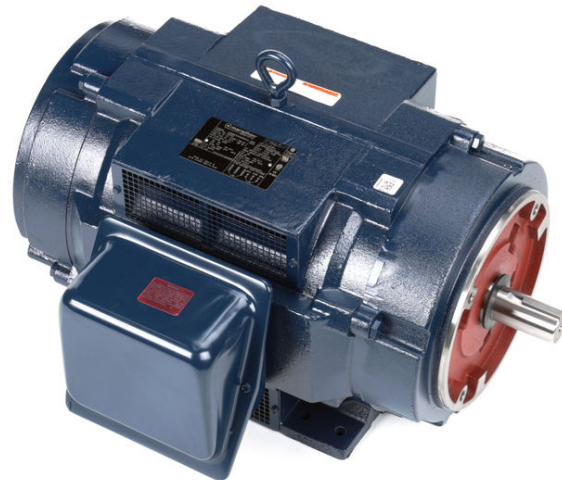


# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 286TSTDN16004  
Catalog No: U443A  
40,3600,DP,286TS,3/60/230/460  
Open Drip Proof (ODP)



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**REGAL**<sup>®</sup>

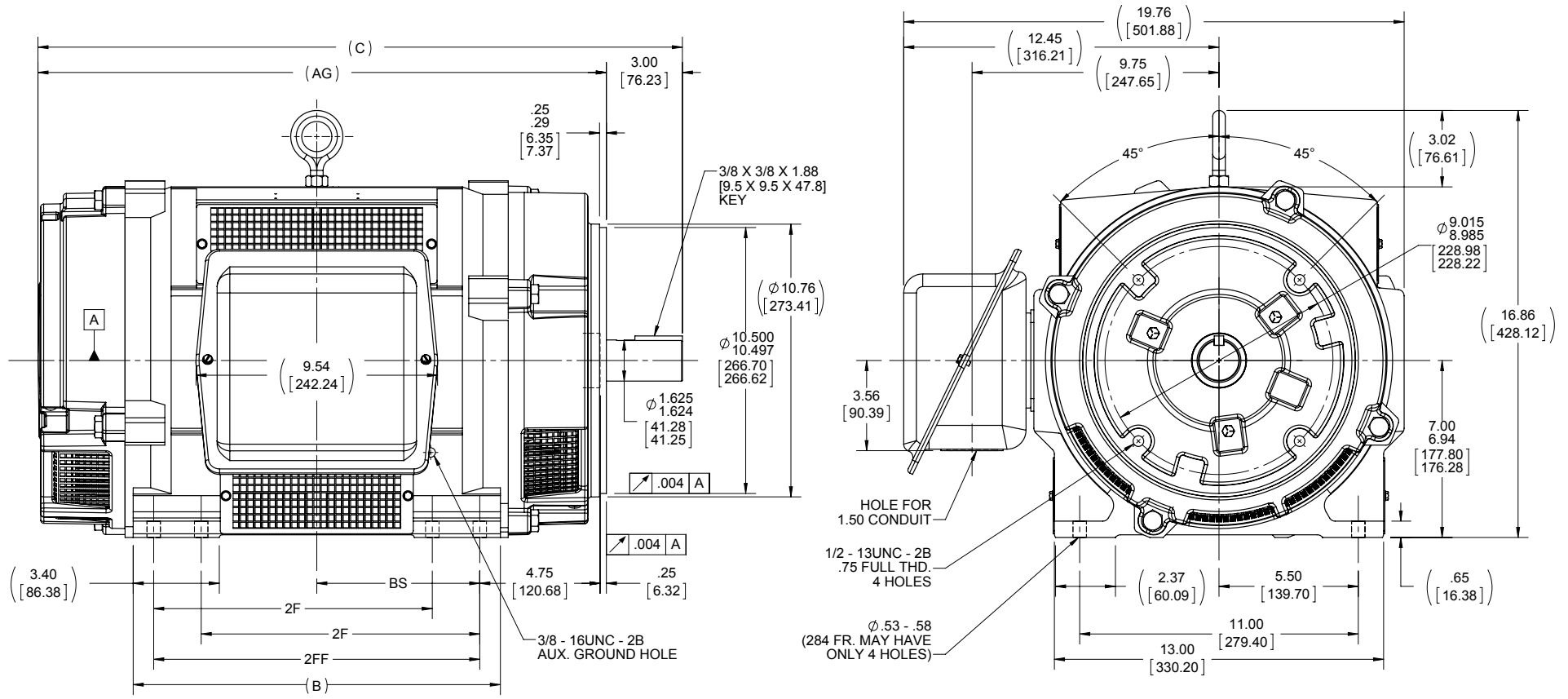


### Nameplate Specifications

Output HP	<b>40 Hp</b>	Output KW	<b>30.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>90.0/45.0 A</b>	Speed	<b>3560 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>F</b>	Frame	<b>286TSC</b>
Enclosure	<b>Drip Proof</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>6210</b>	UL	<b>Recognized</b>
CSA	<b>Y</b>	CE	<b>Y</b>
IP Code	<b>23</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Part Wdg Start Low Volt Only &amp; Wye Start Delta Run</b>
Poles	<b>2</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>TS</b>
Overall Length	<b>25.45 in</b>	Frame Length	<b>15.12 in</b>
Shaft Diameter	<b>1.625 in</b>	Shaft Extension	<b>3 in</b>
Assembly/Box Mounting	<b>F1/F2 Capable</b>		
Outline Drawing	<b>B-SS207991-1512</b>	Connection Diagram	<b>A-EE7358</b>



- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
  2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
  3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	BS	AG
1325	284TSC	12.63 [320.80]	25.58 [649.73]	---	9.50 [241.3]	5.50 [139.7]	20.58 [522.73]
1512	286TSC	14.50 [368.3]	25.45 [646.43]	11.00 [279.4]	12.88 [327.15]	6.44 [163.58]	22.45 [570.23]

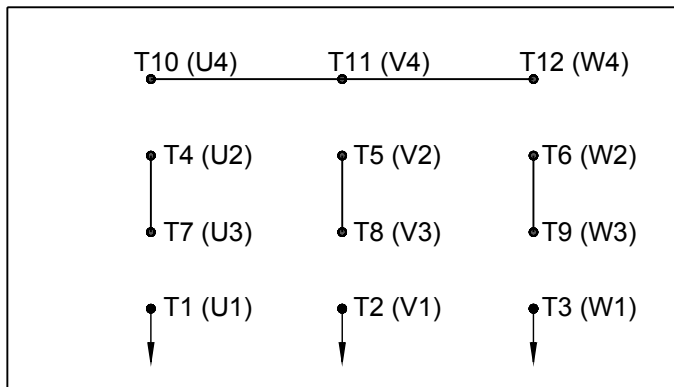
DRAWING REVISION A	REVISION BY	DATE
ECO-0043469	TBROWN	01-15-2013
ECO DESCRIPTION		
MU116288, NMR-0049052		
<small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.          PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF          REGAL BELOIT AMERICA, INC. (OWNER) AND CONTAINS OWNER'S PROPRIETARY          INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED,          BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED          TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT          AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL          BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN          RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>		

TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30'
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP			
EDGES: .003/.015 [0.076/381]			
CORNER FILLETS: .02 [51]			
MACHINED SURFACES: 200 INCH 5.1			
mm SHOWN IN [BRACKETS]			

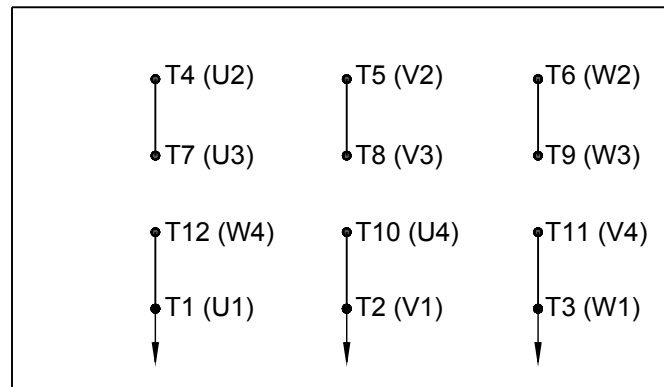
DRAWN BY SJW	Regal Beloit America, Inc.
DATE 05-22-2012	
APPROVED BY TBROWN	DESCRIPTION OUTLINE 280TSC FR. - TS - D.P.- CAST IRON
DATE 05-23-2013	MATERIAL
PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS207991
	SHEET 1 OF 1

# HIGH VOLTAGE

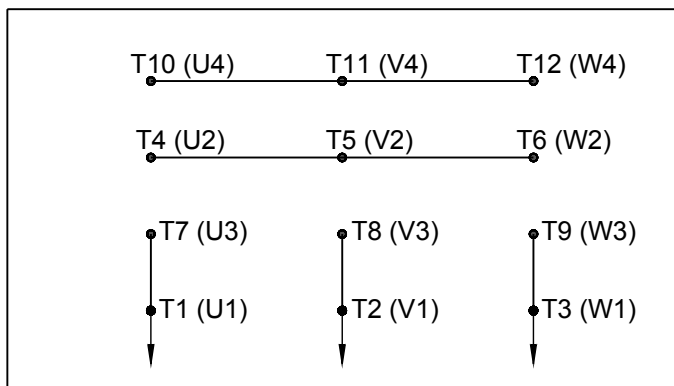
WYE START



DELTA RUN

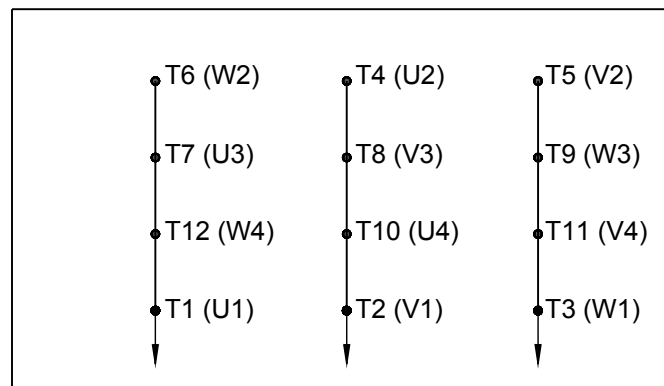


WYE START



# LOW VOLTAGE

DELTA RUN



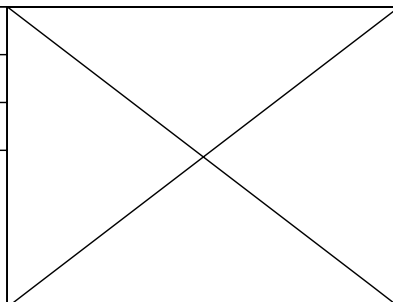
4/2 CKTY  $\triangle$

DRAWING REVISION D	REVISION BY JWO	DATE 01-26-2016
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ECO ECO-0092547	APPROVED BY TB	DATE 01-26-2016
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ECO DESCRIPTION  
**ADDED IEC MARKINGS**

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DRAWN BY BLR
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DATE 03-09-1998
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APPROVED BY GK
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DATE 03-23-1998
--------------------

REFERENCE
-----------

THIRD ANGLE PROJECTION
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**REGAL**™ Regal Beloit America, Inc.

DESCRIPTION  
**CONN DIAGRAM-EXTERNAL**  
12 LEAD - DUAL VOLT. - WYE START - DELTA RUN

MATERIAL	PROCESS/FINISH
----------	----------------

SIZE A	DRAWING NUMBER EE7358	SHEET 1 OF 1
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**CERTIFICATION DATA SHEET**

**Model#:** 286TSTDN16004 AA      **WINDING#:** K286297 R1 6  
**CONN. DIAGRAM:** A-EE7358      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS207991-1512

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40&30	30&22.4	3600	3560&2960	286TSC	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	90/45&83/41.5	PWS(LV ONLY) & YDRUN	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93.6&93.6	3/4 LOAD EFF: 93.6	1/2 LOAD EFF: 92.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89.5&87	3/4 LOAD PF: 87	1/2 LOAD PF: 80	92.4	SQ CAGE IND RUN	26 / 13

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
59 LB-FT	580 / 290	95 LB-FT 161	190 LB-FT 322	35

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	2.9 LB-FT^2	- LB-FT^2	15 SEC.	-	425 LBS.

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

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

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

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

If Inverter equals NONE, contact factory for further information

\*  
N  
O  
T  
E  
S  
\*

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

\*\* Subject to change without notice.

Data Sheet

Date: 16-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



286TSTDN16004

Submittal

Data @ 460 V

Motor Load Data

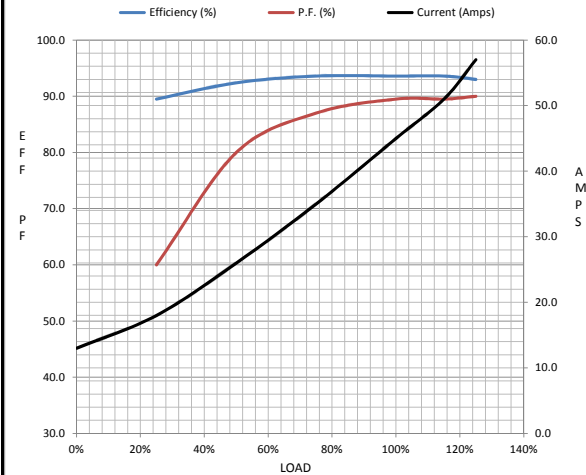
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.0	18.0	26.0	35.0	45.0	51.0	57.0	290
Torque (ft-lb)	0.00	14.5	29.5	44.0	59.0	66.5	74.0	95.0
RPM	3600	3590	3580	3570	3560	3.550	3545	0
Efficiency (%)		89.5	92.4	93.6	93.6	93.6	93.0	
P.F. (%)	7.5	60.0	80.0	87.0	89.5	89.5	90.0	32.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1780	3305	3560	3600
Current (Amps)	290	261	205	45.0	13.0
Torque (ft-lb)	95.0	80.8	190	59.0	0.00

Information Block

HP	40.0			
Sync. RPM	3600			
Frame	286			
Enclosure	DP			
Construction	TDN			
Voltage	30/460#190/38V			
Frequency	60 Hz			
Design	A			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	35 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.90 Lb-Ft <sup>2</sup>			
Ref Wdg	K286297 R1			
Sound Pressure @ 1M	80 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS207991-1512			
Conn. Diag	A-EE7358			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1110	0.0750	0.5680	0.4330	20.4480



Speed -Torque Curve

