PRODUCT INFORMATION PACKET

Model No: 286TTTNA16576AA
Catalog No: 824559.00
..20HP..1200RPM.286T.TEAO.230/460V.3PH.60HZ.CONT.40C.1.15SF.RIGID.....COOLING TOWER.....
Cooling Tower

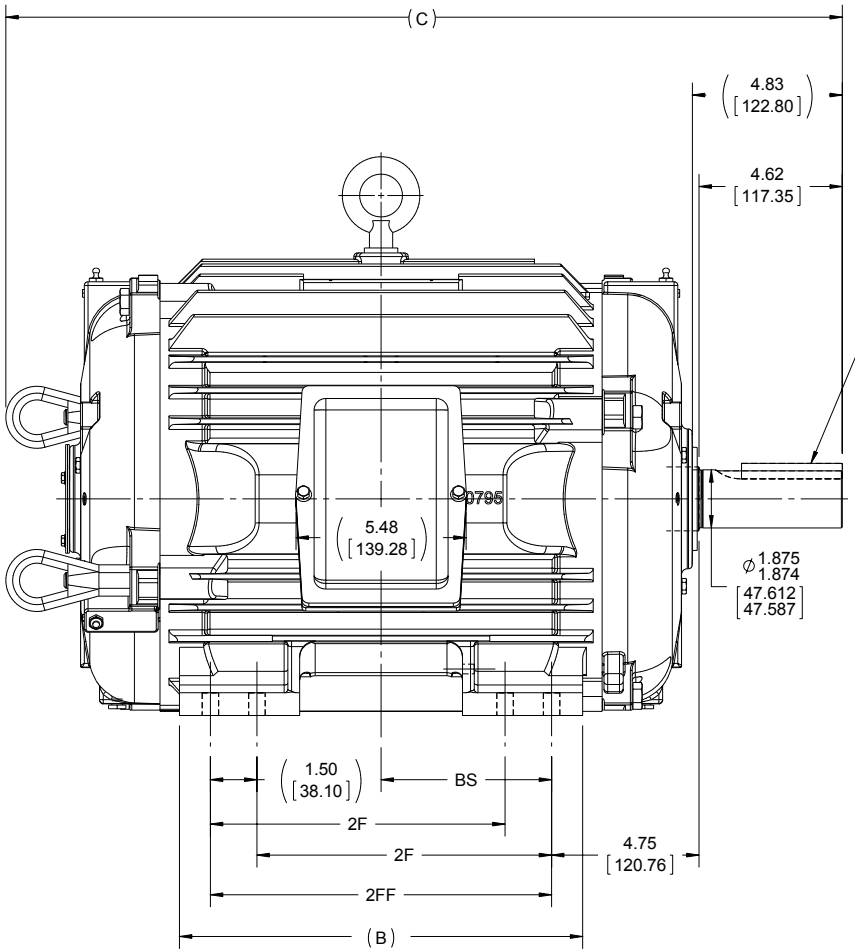
Product Information Packet: Model No: 286TTTNA16576AA, Catalog No:824559.00 ..20HP..1200RPM.286T.TEAO.230/460V.3PH.60HZ.CONT.40C.1.15SF.RIGID.....COOLING TOWER.....

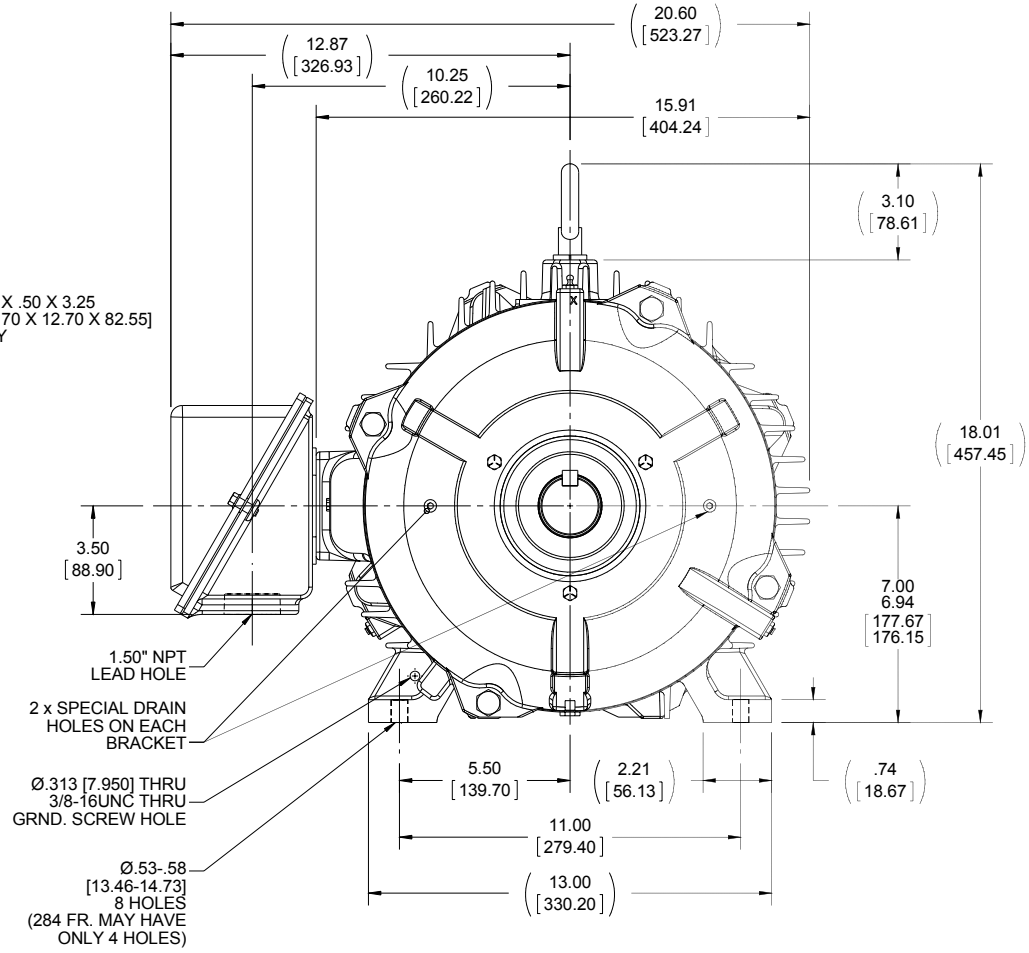
Nameplate Specifications

Output HP	**20 Hp**	Output KW	**14.9 kW**
Frequency	**60 Hz**	Voltage	**230/460 V**
Current	**53.5/26.8 A**	Speed	**1175 rpm**
Service Factor	**1.15**	Phase	**3**
Efficiency	**91.7 %**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Frame	**286TV**
Enclosure	**Totally Enclosed Air Over**	Overload Protector	**No**
Ambient Temperature	**40 °C**	Drive End Bearing Size	**6311**
Opp Drive End Bearing Size	**6210**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**56**		

Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Mounting	**Rigid base**	Motor Orientation	**HORIZONTAL OR UP OR DOWN**
Drive End Bearing	**BALL**	Opp Drive End Bearing	**BALL**
Frame Material	**Cast Iron**	Shaft Type	**T**
Overall Length	**26.97 in**	Frame Length	**14.25 in**
Shaft Diameter	**1.875 in**	Shaft Extension	**4.62 in**
Assembly/Box Mounting	**F1/F2 CAPABLE**		
Outline Drawing	**B-SS312689-1425**	Connection Diagram	**A-EE7308**





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	BS	2F	2FF
1275	284T	12.50 [317.50]	25.47 [646.94]	4.75 [120.65]	---	9.50 [241.30]
1425	284/286T	13.00 [330.20]	26.97 [685.04]	5.50 [139.70]	9.50 [241.30]	11.00 [279.40]

DRAWING REVISION	REVISION BY	DATE
B	JWO	07-27-2015
ECO	APPROVED BY	DATE
ECO-0081645	TB	07-27-2015

ECO DESCRIPTION
NMR-0084175, MU120012

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 [.076/.381]
CORNER FILLETS: .02 [.51]
MACHINED SURFACES: 200 INCH / 5.1 mm
mm SHOWN IN [BRACKETS]

DRAWN BY	W. JOERGER
DATE	03-27-2015
APPROVED BY	E. HEIL
DATE	03-27-2015
REFERENCE	
THIRD ANGLE PROJECTION	

Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
280T FR - TEAO / TENV - BB - STD - 12.50" LAM

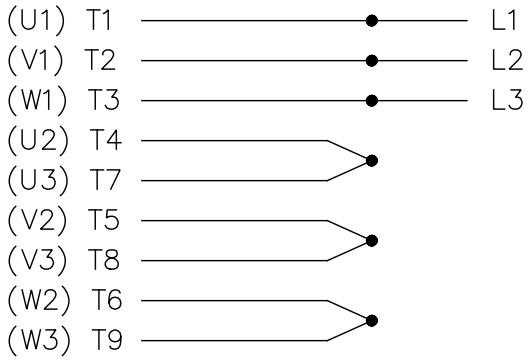
MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
B	SS312689	1 OF 1

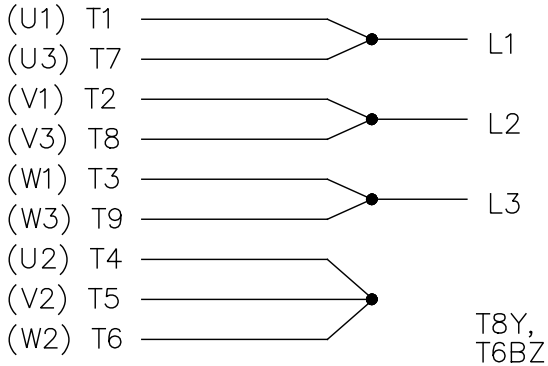
EE7308

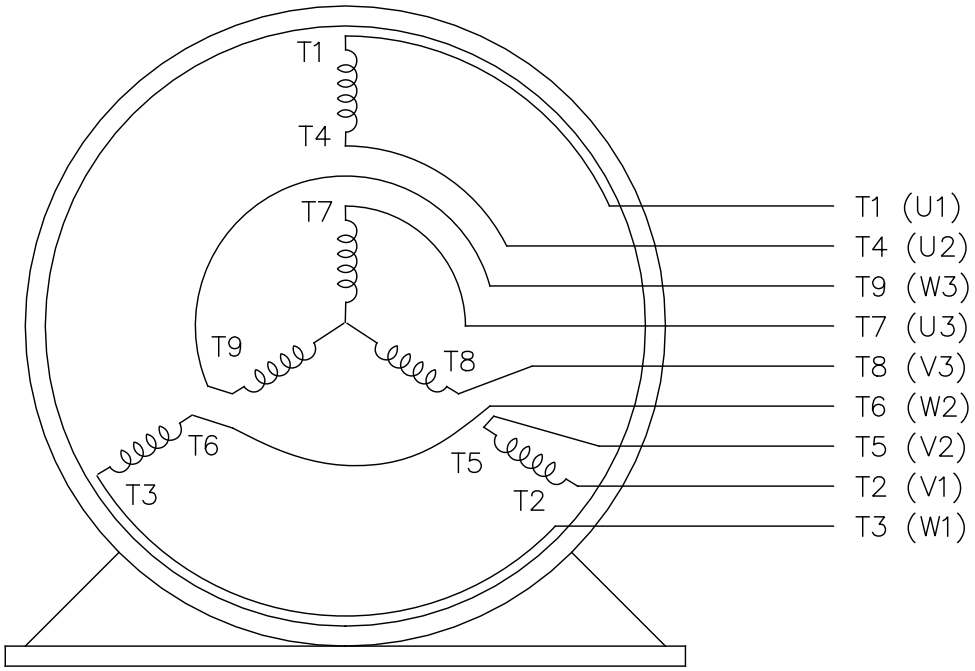
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE





VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD CONNECTION

L1	WHITE
L2	RED
L3	BLACK

NO.	REVISION	BY & DATE	CHK
5	CHG TO REGAL LOGO	SL 09/10/2015	AB
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS
1	REDRAWN	RM 11/20/1990	

TOLERANCES UNLESS SPECIFIED

ANG	DEC.	INCHES
	.X	±.1
	.XX	±.02
	.XXX	±.005
	.XXXX	±.0005
	ANG	±7'30"

Regal Beloit America, Inc.

TITLE CONNECTION DIAGRAM
3ø – DUAL VOLTAGE MOTOR

MAT'L.

FINISH

CAD FILE ee7308

RFP

DIST WP

DRAWN RM	11/20/1990
CHK ML	11/21/1990
APPD SAS	04/24/2003
SCALE	1=1
REF	
FMF	
PREV	

SIZE	DRAWING NO. PAGE OF	REV.
A	EE7308	5

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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7308 **CAT #:** 824559.00
OUTLINE: B-SS312689-1425
WINDING: 286654 R7 8

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1200	1175	286TV	TEAO	TTN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	53.5/26.8&54/27	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE
F.L. PF	76.0	3/4 LD PF	70.5	1/2 LD PF	59.5	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	157 LB-FT 176%	238 LB-FT 267%	0	

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	4.8 LB-FT²	350 LB-FT²	20 SEC.	2	540 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	ZONTAL OR UP OR D	UM SEVERE	NONE	NO	NONE	UE - LEESON (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
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
0.234	0.247	1.252	1.273	19.213	0.080	ODE

*
NOTES
*

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:**
UL: Y-(LEESON UL REC)

DATE: 1/29/2018

Data Sheet

Date: 1/29/2018

824559.00

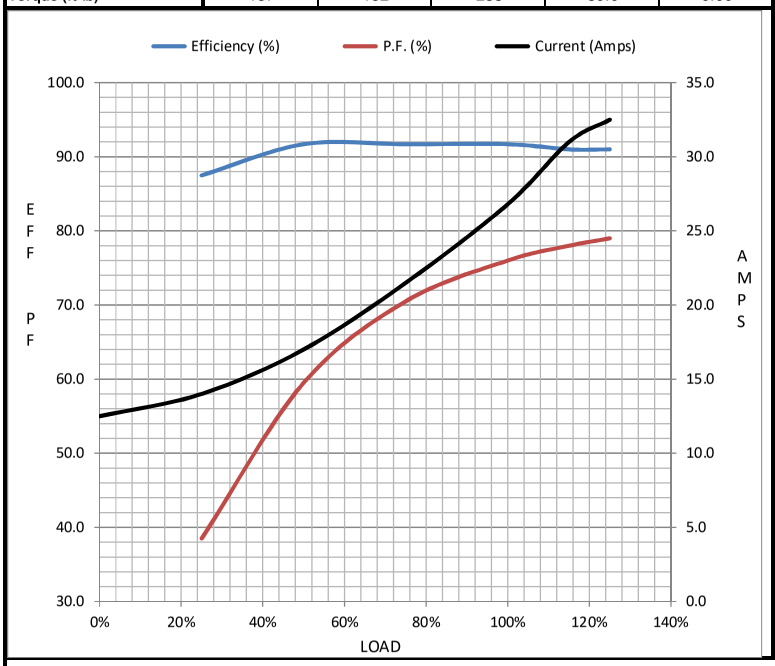
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.5	14.0	17.0	21.5	26.8	31.0	32.5	145	
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	103	112	157	
RPM	1200	1195	1190	1180	1175	1,170	1167	0	
Efficiency (%)		87.5	91.7	91.7	91.7	91.0	91.0		
P.F. (%)	20.5	38.5	59.5	70.5	76.0	78.0	79.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1070	1175	1200
Current (Amps)	145	135	93.5	26.8	12.5
Torque (ft-lb)	157	152	238	89.0	0.00



Information Block

HP	20.0	
Sync. RPM	1200	
Frame	286	
Enclosure	TEAO	
Construction	TTN	
Voltage	230/460#190/380	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	0	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	4.8	Lb-Ft²
Ref Wdg	286654 R7	
Sound Pressure @ 1M	999	dBA
VFD Rating	CONSTANT 10:1	
Outline Dwg	B-SS312689-1425	
Conn. Diag	A-EE7308	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.2340	0.2470	1.2520	1.2730	19.2130

Speed -Torque Curve