

# PRODUCT INFORMATION PACKET



Model No: 171781.60  
Catalog No: 171781.60  
Severe Duty Motor, 30 & 25 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 3600 & 3000 RPM,  
286TS Frame, TEFC



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### Nameplate Specifications

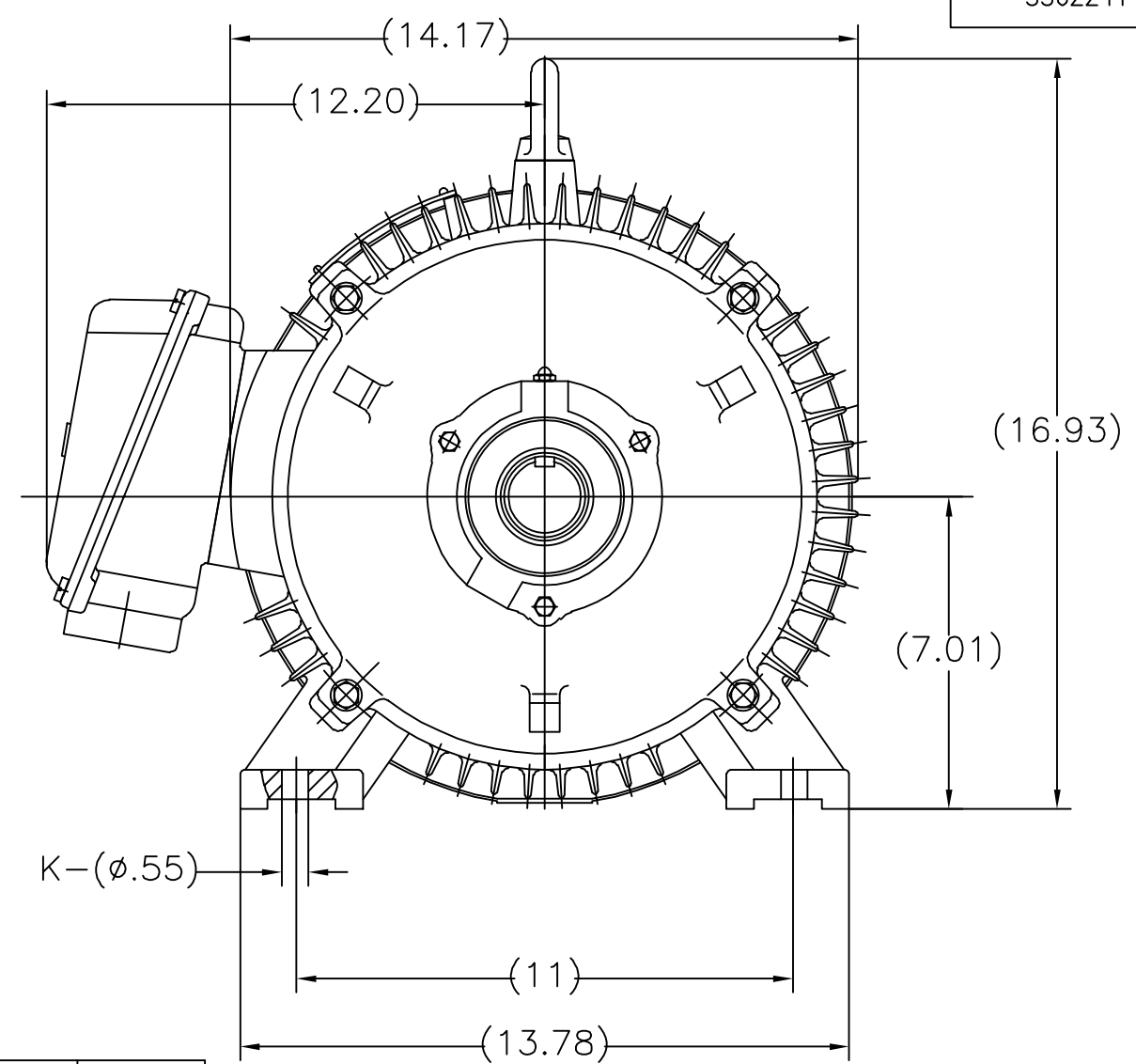
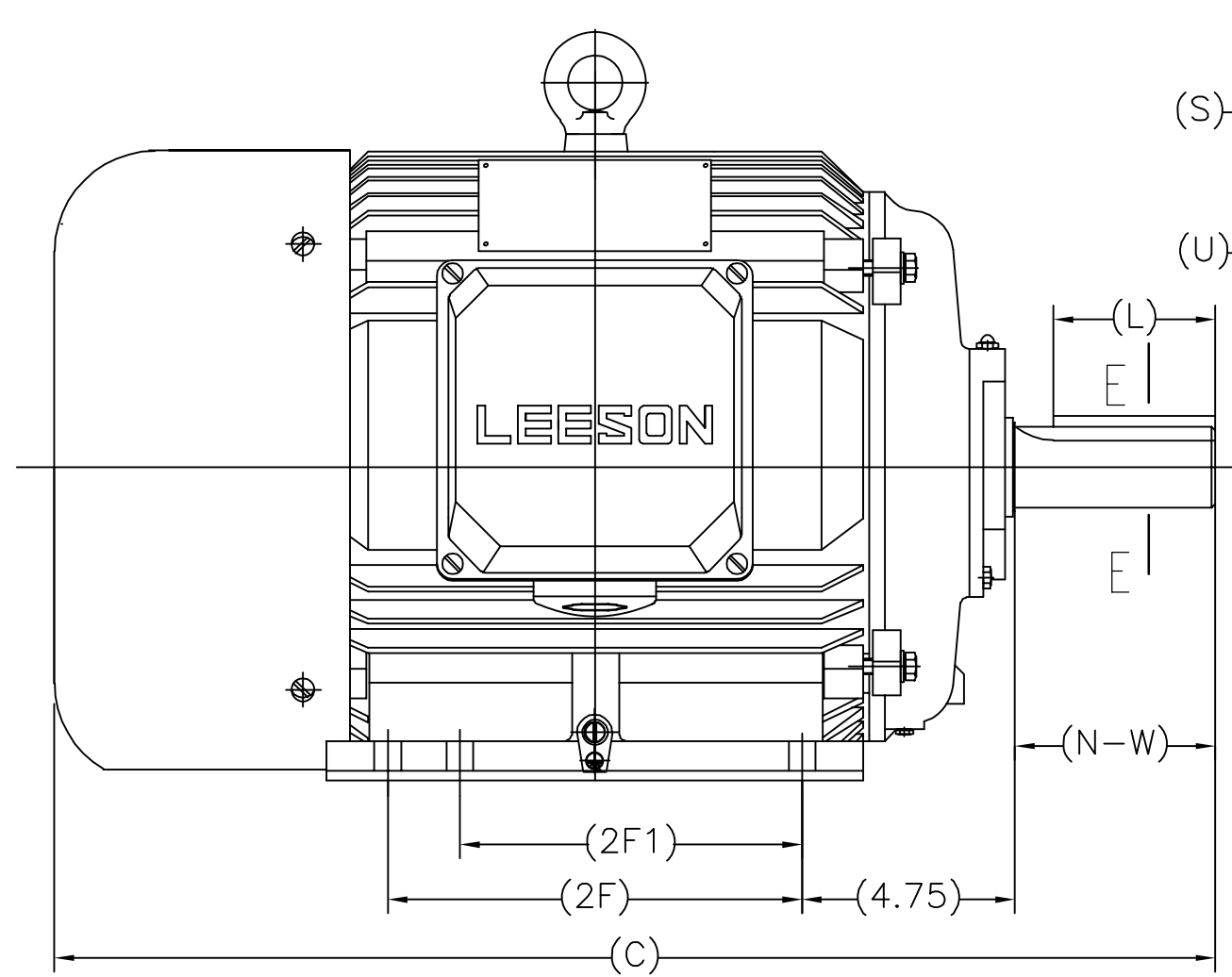
Phase	3	Output HP	30 & 25 Hp
Output KW	22.4 & 18.7 kW	Voltage	208-230/460 & 190/380 V
Speed	3552 & 2950 rpm	Service Factor	1.15 & 1.15
Frame	286TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.1 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	74-68/34 & 66.5/33 A	Power Factor	88.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6309
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1	Hazardous Location	DIVISION 2

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	2	Rotation	Reversible
Mounting	Rigid Base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	TS
Overall Length	26.65 in	Shaft Diameter	1.625 in
Shaft Extension	3.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	SS622414	Connection Drawing	00417203

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SS622414



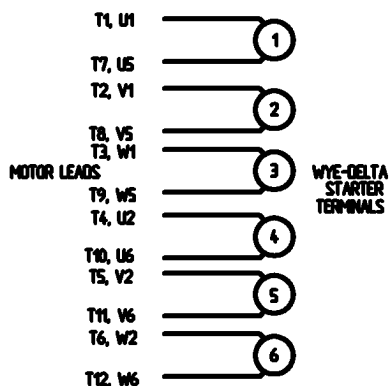
MODEL	DESCRIPTION	2F	2F1	K	C	N-W	U	R	S	L
171778.60	N284TS-2WTC; 1000	9.50		4	25.20	3.23	ø1.61	1.42	.37	1.87
171781.60	N286TS-2WTC;1000	11.00	9.50	6	26.65					
171779.60	N284T-4WTC;1000	9.50		4	26.57	4.60	ø1.87	1.59	.50	3.23
171782.60	N286T-4WTC; 1000	11.00	9.50	6	28.03					

NOTES:  
 1. DIMENSIONS ARE REFERENCE ONLY  
 2. DRAWING MAY NOT BE TO SCALE

		TOLERANCES UNLESS SPECIFIED		<b>REGAL</b> REGAL-BELOIT CORPORATION		DRAWN RFH 07/25/2014	
		DEC.	N/A			CHK	
		.X	±-	TITLE OUTLINE - TEFC 280T FR. - N280-2,4WTC;1000		APPD SB 07/25/2014	
		.XX	±-			SCALE N/A	
		.XXX	±-			REF	
		.XXXX	±-			MAT'L	
		.ANG	±-	FINISH		FMF ECO-0051969	
NO.	REVISION	BY & DATE	CHK	ANG	FINISH	PREV	
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT				RFP	CAD FILE SS622414.dwg	SIZE A	DRAWING NO. PAGE 1 OF 1 REV. SS622414
				DIST			

WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

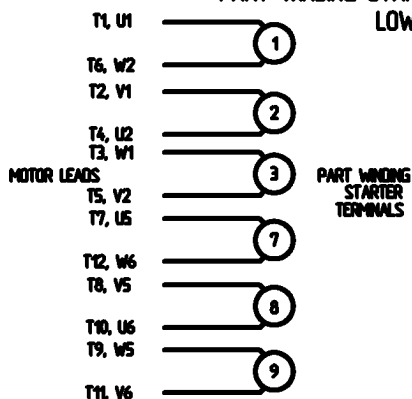


HIGH VOLTAGE CONNECTION



REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

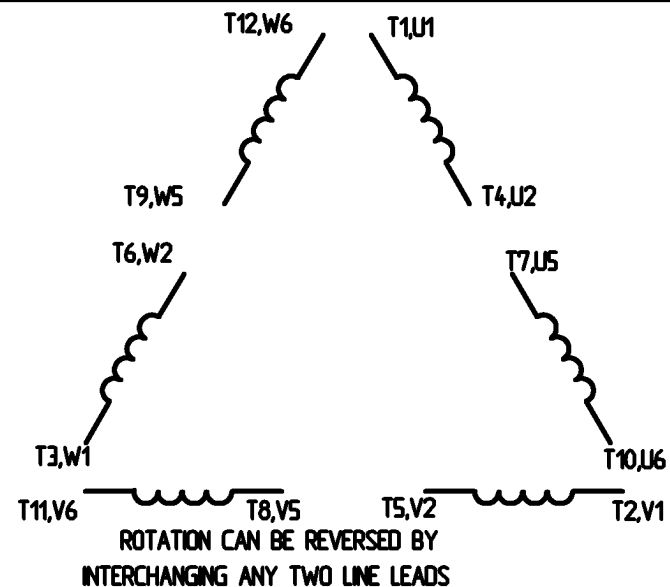
PART WINDING START USABLE ON 4 & 6 POLE MOTORS  
LOW VOLTAGE CONNECTION ONLY



REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

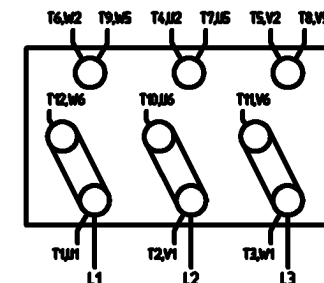
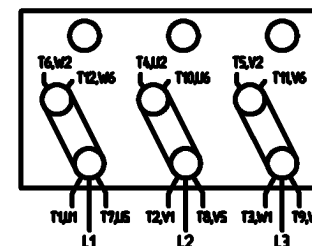
LINE LEADS



12 LEAD DELTA CONNECTION ACROSS THE LINE START  
(FOR Y START DELTA RUN, REMOVE THE JUMPERS)

LOW VOLTAGE  
MUST BE REWIRED  
AS SHOWN

HIGH VOLTAGE  
FACTORY WIRED FOR HIGH  
VOLTAGE AS SHOWN



				TOLERANCES UNLESS SPECIFIED			DRAWN C/W 08/28/02		
				DEC.	INCHES		CHK		
				X	+ 1		APPO		
				XX	+ .01		SCALE 1:1		
				XXX	+ .005		REF		
				XXXX	+ .0005	FMF			
NO.	REVISION	BY & DATE	CHK	ANG	+ 1/2°	FINISH	PREV		
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				DST					

ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--

STACK:

/CB  
-dictionary-  
/Pscript\_WinNT\_Compat  
-dictionary-



**CERTIFICATION DATA SHEET**

**1051 CHEYENNE AVE.  
GRAFTON, WI 53024  
PH. 262-377-8810**

CATALOG #:171781.60

CONN. DIAGRAM: 00417203

OUTLINE: SS622414

MOUNTING: F1/F2 CAPABLE

WINDING #: T14502017 3

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30&25	22.4&18.7	3600	3552&2950	286TS	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	208-230/460&190/380	74-68/34&66.5/33	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	94.1&93	3/4 LOAD EFF:	94.5	1/2 LOAD EFF:	95.4	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	88.5&91.6	3/4 LOAD PF:	88	1/2 LOAD PF:	84.5	92.4		SQ CAGE INV RATED	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
44.5 LB-FT	434 / 217	90.6 LB-FT 205 %	117.5 LB-FT 265 %	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
79.5 dBA	89.5 dBA	2.05 LB-FT^2	2 LB-FT^2	20 SEC.	2	- LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2	FALSE	NONE	GREEN (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	AISI 1045 (C-240)	CAST IRON
6311	6309						

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

\*  
N  
O  
T  
E

<b>INVERTER TORQUE:</b> VARIABLE 10:1
<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

Data Sheet

Date: 1/19/2018

171781.60



Data @ 460 V

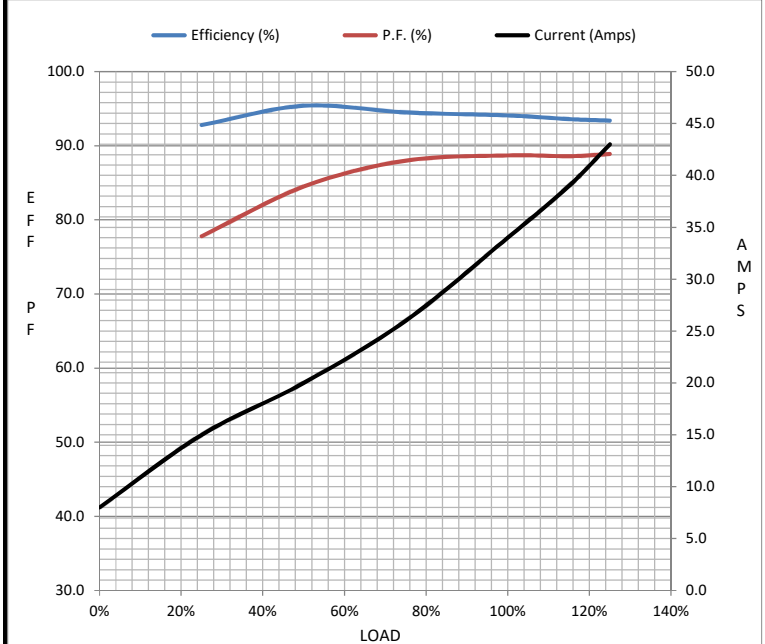
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.0	15.0	20.0	26.0	34.0	39.0	43.0	217
Torque (ft-lb)	0.00	17.0	25.5	34.0	44.5	54.0	56.5	90.6
RPM	3600	3588	3577	3565	3555	3,545	3535	0
Efficiency (%)		92.8	95.4	94.5	94.1	93.6	93.4	
P.F. (%)	8.2	77.8	84.5	88.0	88.7	88.6	88.9	0.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	3350	3555	3600
Current (Amps)	217	215	145	34.0	8.0
Torque (ft-lb)	90.6	68.0	118	44.5	0.00

Information Block				
HP	30.0			
Sync. RPM	3600			
Frame	286			
Enclosure	TEFC			
Construction	TFC			
Voltage	208-230/460#190/380 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.05 Lb-Ft <sup>2</sup>			
Ref Wdg	T14502017 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	SS622414			
Conn. Diag	00417203			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



Speed - Torque Curve

