

# PRODUCT INFORMATION PACKET



Model No: 811661.00  
Catalog No: 811661.00  
100 HP Severe Duty Motor, 3 phase, 1200 RPM, 460 V, 444T Frame, TEFC  
Severe Duty Motors



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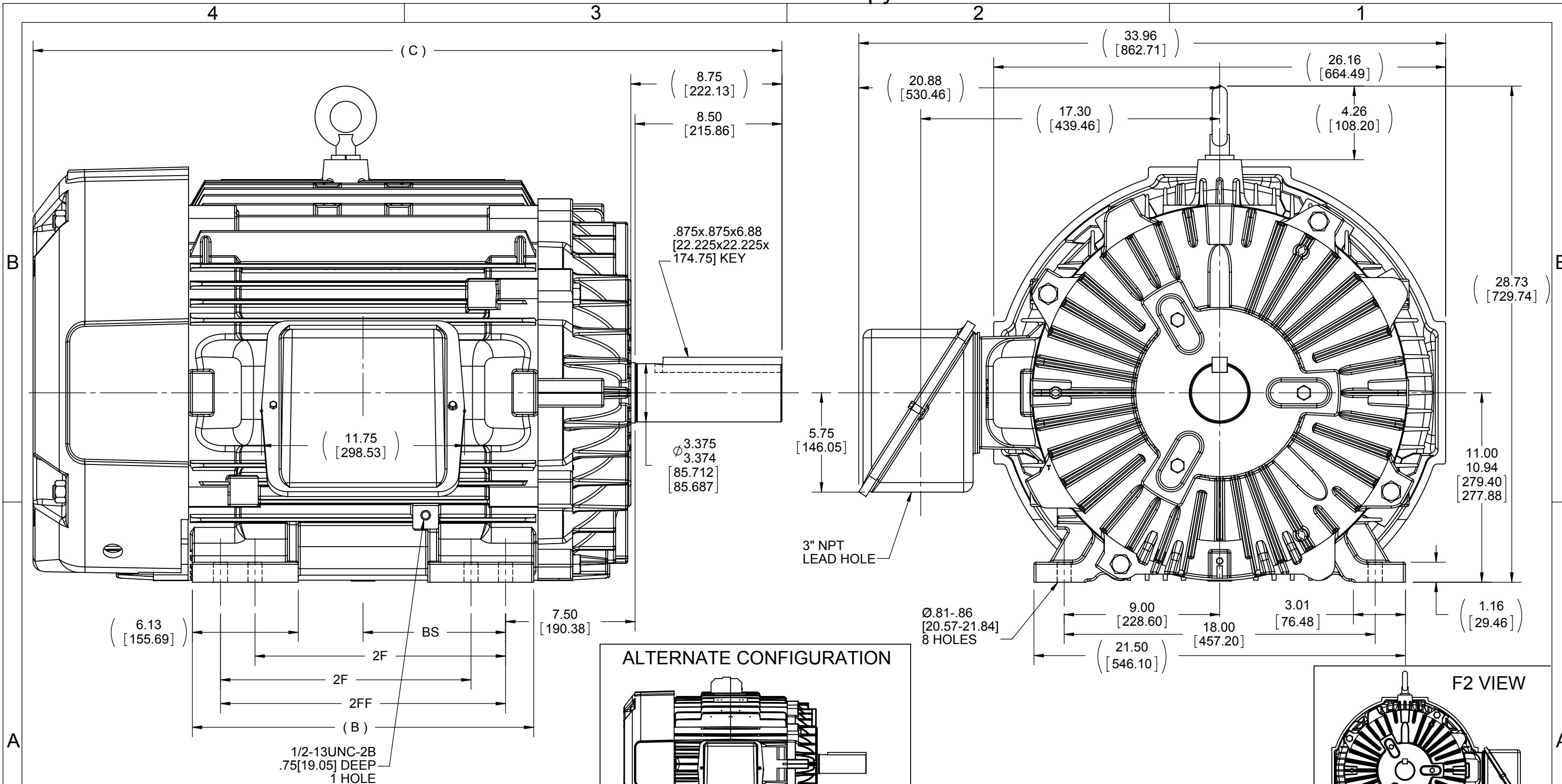
**Nameplate Specifications**

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>124.0 A</b>	Speed	<b>1188 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95 %</b>	Power Factor	<b>80</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>444T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6318</b>	Opp Drive End Bearing Size	<b>6316</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>56</b>
Number of Speeds	<b>1</b>		

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.048 Ohms</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>	Overall Length	<b>20.00 in</b>
Frame Length	<b>20.50 in</b>	Shaft Diameter	<b>3.375 in</b>
Shaft Extension	<b>8.5 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>A-EE7300U</b>	Outline Drawing	<b>B-SS513797-2050</b>

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- 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. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	BS
1825	444T	17.75 [450.85]	41.34 [1050.04]	14.50 [368.30]	---	7.25 [184.15]
2025	444/445T	19.75 [501.65]	43.34 [1100.84]	14.50 [368.30]	16.50 [419.10]	8.25 [209.55]

DRAWING REVISION C	REVISION BY AJW	DATE 11-13-2014
ECO ECO-0065299	APPROVED BY TDB	DATE 11-13-2014
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS 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.		

TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 DEC. INCH mm ANGLE  
 .X ±0.1 [±2.5] ±0.5°  
 .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 [0.51]  
 MACHINED SURFACES: 125 3.2  
 INCH mm  
 mm SHOWN IN [BRACKETS]

DRAWN BY JL	DATE 06-28-1991
APPROVED BY AAL	DATE 12-02-1991
REFERENCE	THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 444/445T FR.-STD.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS513797
SHEET 1 OF 1	

**IF MOTOR HAS 9 LEADS**

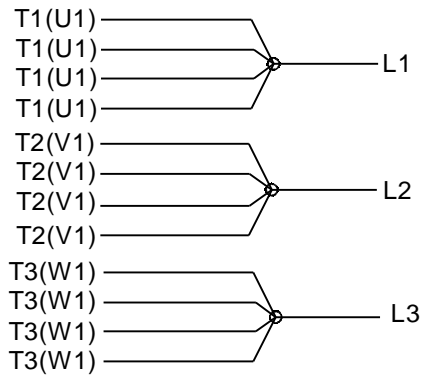


**IF MOTOR HAS 6 LEADS**



A-9806 DECAL IF CALLED FOR

**IF MOTOR HAS 12 LEADS**



**VIEW OF TERMINAL END**

DRAWING REVISION <b>L</b>	REVISION BY <b>AJW</b>	DATE <b>05-04-2015</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>DRS</b>	<b>Regal Beloit America, Inc.</b>																			
ECO <b>ECO-0077067</b>	APPROVED BY <b>EWH</b>	DATE <b>05-05-2015</b>	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>		<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]	
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ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b>			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS]	APPROVED BY <b>GK</b>	DESCRIPTION <b>CONN DIAGRAM-EXTERNAL</b> 3Ø SINDLE VOLTAGE																			
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				REFERENCE	SIZE <b>A</b>	DRAWING NUMBER <b>EE7300U</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**

CONN. DIAGRAM: A-EE7300U  
 OUTLINE: B-SS508879-2050  
 WINDING: T444689

CAT #: 811661.00

NONE 3

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1200	1188	444T	TEFC	TFN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	124	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	95.0	3/4 LD EFF	95.0	1/2 LD EFF	94.1	GTD EFF	94.5	ELECT. TYPE	SQ CAGE INV RATED
F.L. PF	80.0	3/4 LD PF	75.0	1/2 LD PF	64.5				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
442 LB-FT	725	750 LB-FT 170%	1,100 LB-FT 249%	70

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
72 dBA	81 dBA	55.0 LB-FT²	1400 LB-FT²	25 SEC.	2	1850 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	DIVISION 2 T2B	NO	NONE	IN - LEESON WATTS

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6318	6316						

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
0.034	0.022	0.235	0.278	4.842	0.080	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE	
	NONE	
	NONE PPR	

DATE: 1/29/2018	BRAKE: NONE	
	NONE NONE NONE	
	FT-LB: NA	NONE
	VOLTAGE: NONE	HZ:
UL: Y-(LEESON UL REC)		

Data Sheet

Date: 1/29/2018

811661.00



Data @ 460 V

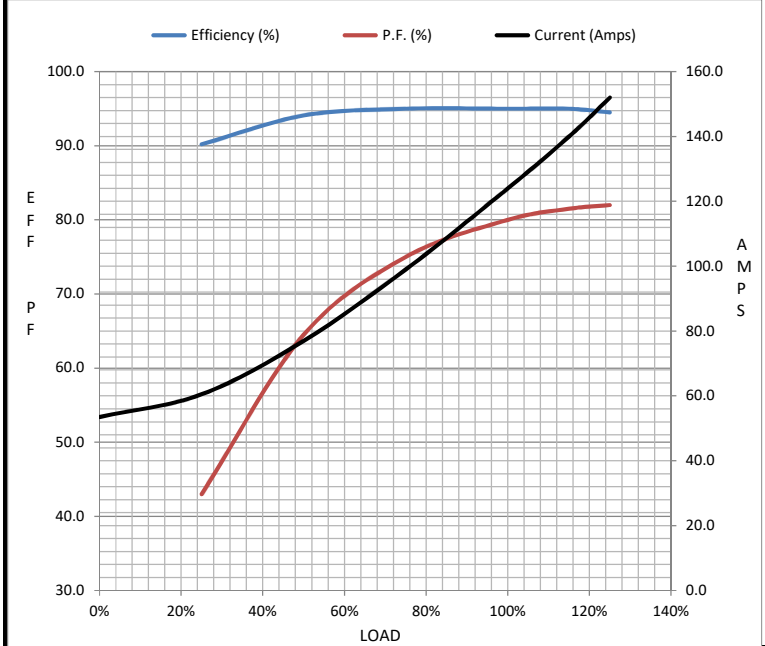
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	53.5	60.5	77.0	99.0	124	140	152	725
Torque (ft-lb)	0.00	110	220	331	442	509	554	750
RPM	1200	1198	1195	1192	1188	1,186	1184	0
Efficiency (%)		90.2	94.1	95.0	95.0	95.0	94.5	
P.F. (%)	4.0	43.0	64.5	75.0	80.0	81.5	82.0	28.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1150	1188	1200
Current (Amps)	725	650	425	124	53.5
Torque (ft-lb)	750	600	1,100	442	0.00

Information Block				
HP	100.0			
Sync. RPM	1200			
Frame	444			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	B			
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>	55.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T444689 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS508879-2050			
Conn. Diag	A-EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0340	0.0220	0.2350	0.2780	4.8420



Speed - Torque Curve

