

# PRODUCT INFORMATION PACKET

Model No: 444TTGN16580

Catalog No: E580A

Hazardous Duty® Explosion Proof Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 444T Frame, EPFC



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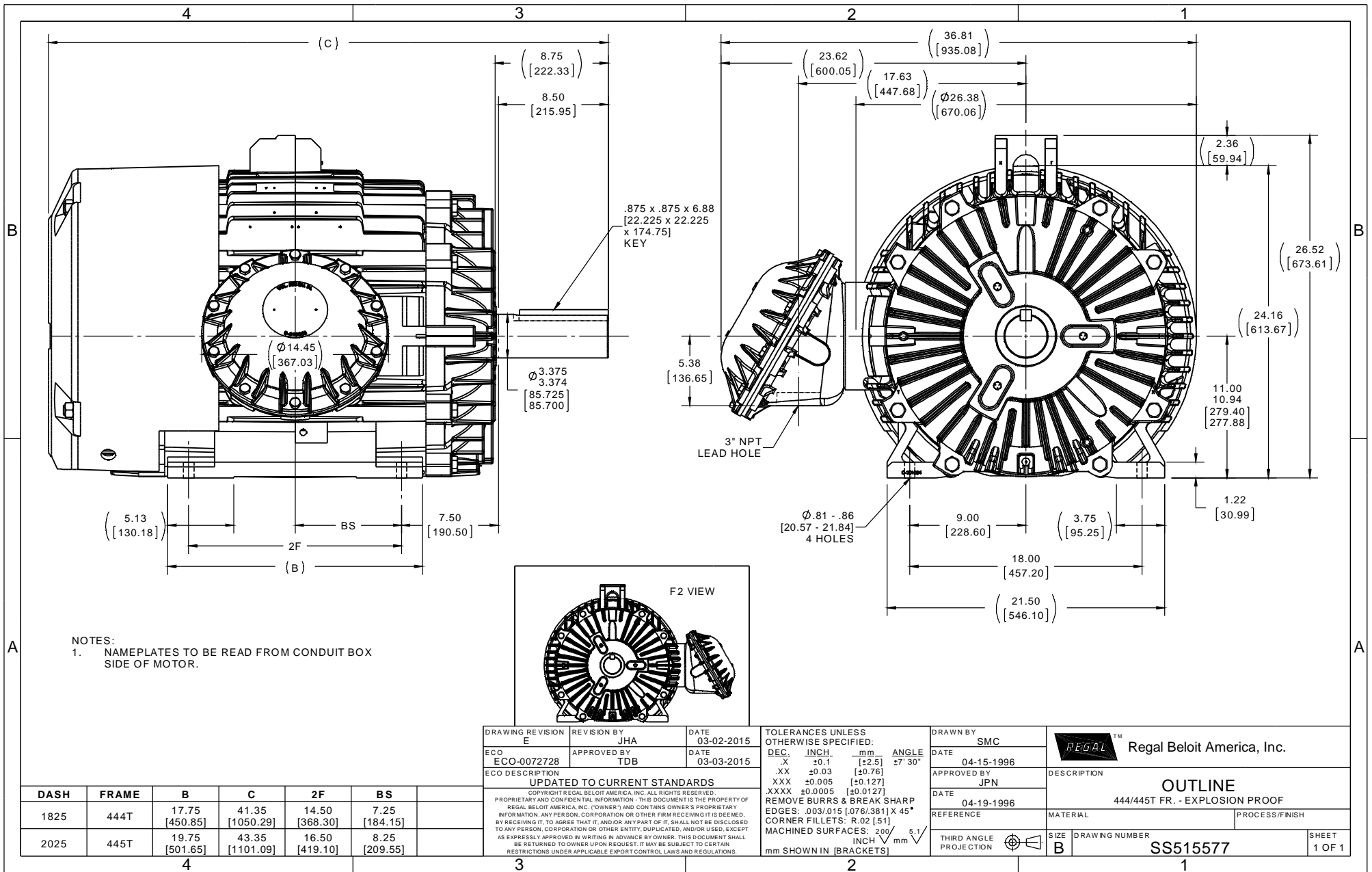
### Nameplate Specifications

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>248.0/124.0 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>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6318</b>	Opp Drive End Bearing Size	<b>6316</b>
UL	<b>UL Listed; also, UL Certified for Canada</b>	CSA	<b>N</b>
CE	<b>N</b>	IP Code	<b>54</b>
Hazardous Location	<b>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C</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>41.35 in</b>
Frame Length	<b>18.25 in</b>	Shaft Diameter	<b>3.375 in</b>
Shaft Extension	<b>8.75 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>VARIABLE 10:1</b>		
Outline Drawing	<b>B-SS515577-1825</b>	Connection Drawing	<b>A-EE7308AD</b>

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DASH	FRAME	B	C	2F	BS
1825	444T	17.75 [450.85]	41.35 [1050.29]	14.50 [368.30]	7.25 [184.15]
2025	445T	19.75 [501.65]	43.35 [1101.09]	16.50 [419.10]	8.25 [209.55]

DRAWING REVISION	REVISION BY	DATE
E	JHA	03-02-2015
ECO-0072728	TDB	03-03-2015

ECO DESCRIPTION

UPDATED TO CURRENT STANDARDS

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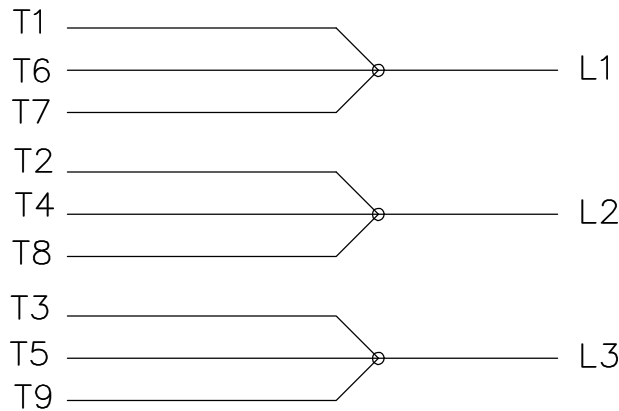
TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH.	mm	ANGLE
.X	±0.1	[±2.5]	27° 30'
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

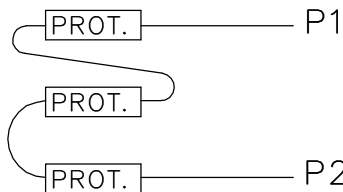
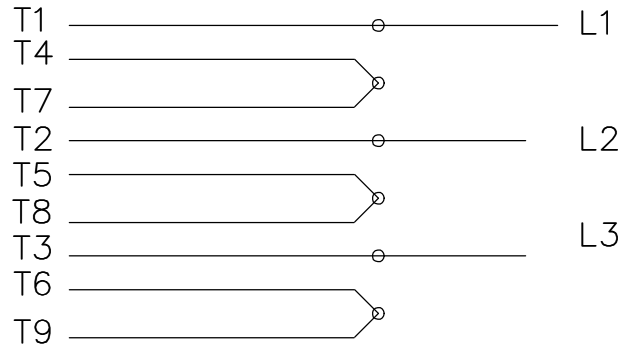
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°  
CORNER FILLETS: R.02 [51]  
MACHINED SURFACES: 200 √ INCH mm 5.1  
mm SHOWN IN [BRACKETS]

DRAWN BY	SMC	Regal Beloit America, Inc.		
DATE	04-15-1996			
APPROVED BY	JPN	DESCRIPTION		
DATE	04-19-1996	OUTLINE		
REFERENCE		444/445T FR. - EXPLOSION PROOF		
		MATERIAL		
		PROCESS/FINISH		
THIRD ANGLE PROJECTION		SIZE	DRAWING NUMBER	SHEET
		B	SS515577	1 OF 1

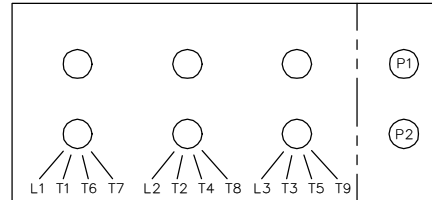
LOW VOLTAGE



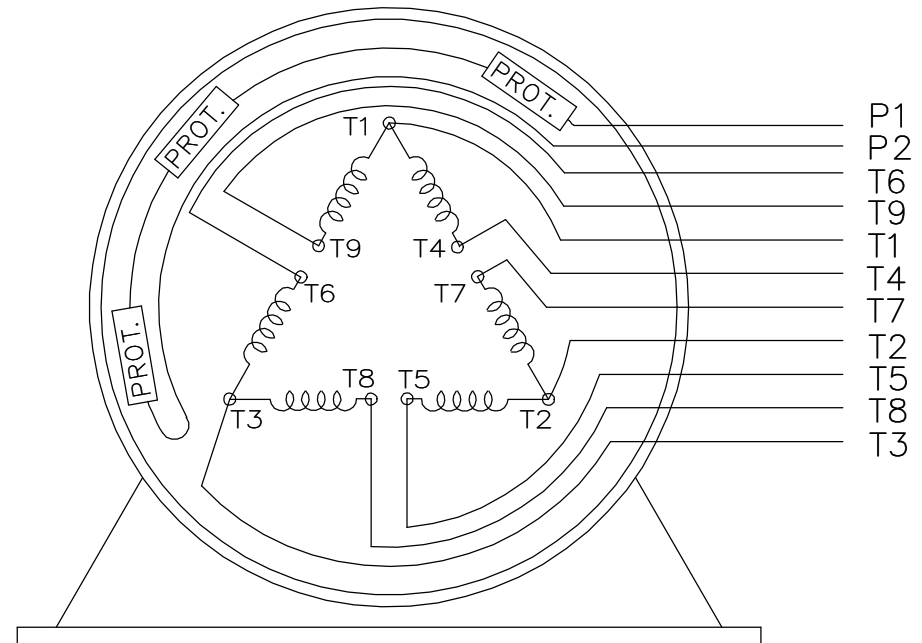
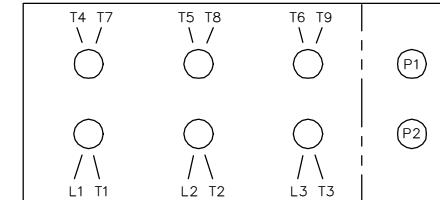
HIGH VOLTAGE



LOW VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

DRAWING REVISION <b>L</b>	REVISION BY <b>JP</b>	REV DATE/© DATE <b>06-21-2019</b>	TOLERANCES (EXCEPT AS NOTED): DEC. INCH mm ANGLE .X ±0.1 [±3] ±7° 30" .XX ±0.02 [±0.5] .XXX ±0.005 [±0.13] .XXXX ±0.0005 [±0.013] REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45° CORNER FILLETS: R.02 [.5] MACHINED SURFACES: 200/ 5.1 INCH mm mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY <b>MJD</b>	Regal Beloit America, Inc.
ECO <b>ECO-0168744</b>	APPROVED BY <b>MH</b>	DATE <b>06-21-2019</b>		DATE <b>12-19-1997</b>	
ECO DESCRIPTION <b>UPDATED TO CURRENT STANDARDS</b>				APPROVED BY <b>GK</b>	DESCRIPTION <b>CONN DIAGRAM-EXTERNAL</b>
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				REFERENCE	MATERIAL
			THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7308AD</b>
					SHEET <b>1 OF 1</b>

**CERTIFICATION DATA SHEET**

**Model#:** 444TTGN16580 AA      **WINDING#:** T444689 NONE 1  
**CONN. DIAGRAM:** A-EE7308AD      **ASSEMBLY:** F1 ONLY  
**OUTLINE:** B-SS515577-1825

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100&75	75&56	1200	1188&990	444T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	248/124&230/ 115	LINE OR INVERTER	CONTINUOU S	F1	1.15/1.15	40	3300

FULL LOAD EFF: 95&94.5	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80&79	3/4 LOAD PF: 75	1/2 LOAD PF: 64.5	94.5	SQ CAGE INV RATED	107 / 53.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
442 LB-FT	1450 / 725	750 LB-FT 170	1100 LB-FT 249	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	55 LB-FT^2	1400 LB-FT^2	25 SEC.	2	1850 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	EXP PROOF CL I GR C&D CL II GR F&G T3C	FALSE	NONE	BLUE (EPOXY)

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

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

\*  
N  
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T  
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S  
\*

INVERTER TORQUE: VARIABLE 10:1 INV. HP SPEED RANGE: NONE
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE - FT-LB NONE V NONE Hz

DATE: 06/21/2017 04:39:43 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

**Data Sheet**

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



444TTGN16580

**Submittal**

Data @ **460 V**

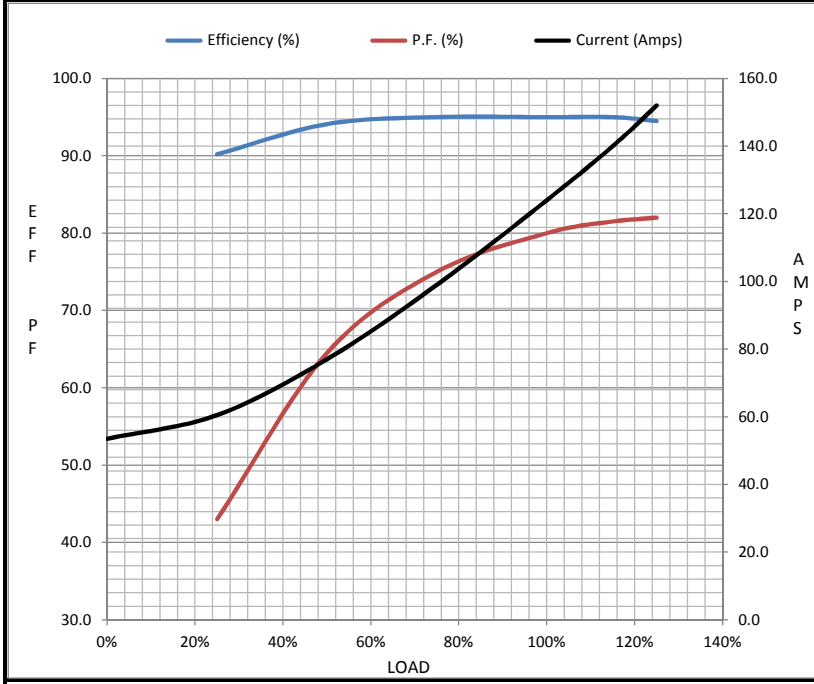
**Motor Load Data**

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	230/460#190/38(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	VARIABLE 10:1			
Outline Dwg	B-SS515577-1825			
Conn. Diag	A-EE7308AD			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0340	0.0220	0.2350	0.2780	4.8420



**Speed - Torque Curve**

