

PRODUCT INFORMATION PACKET

Model No: 444TTGN16580

Catalog No: E580A

Hazardous Duty® Explosion Proof Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
1200 & 1000 RPM, 444T Frame, EPFC



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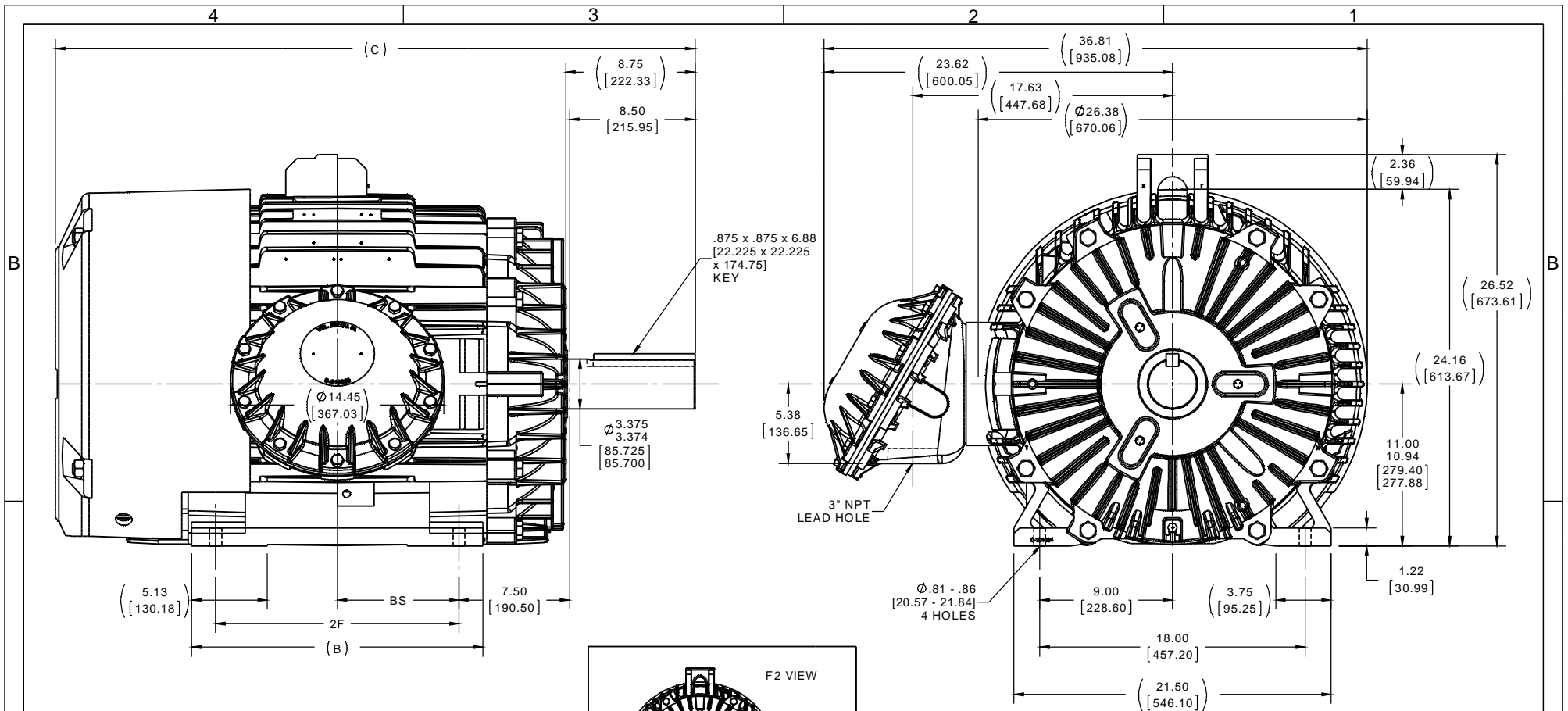
Nameplate Specifications

Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	230/460 & 190/380 V
Speed	1188 & 990 rpm	Service Factor	1.15 & 1.15
Frame	444T	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	95 & 94.5 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	248/124 & 230/115 A	Power Factor	80
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6318	Opp Drive End Bearing Size	6316
UL	UL Listed; also, UL Certified for Canada	CSA	N
CE	N	IP Code	54
Number of Speeds	1	Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C

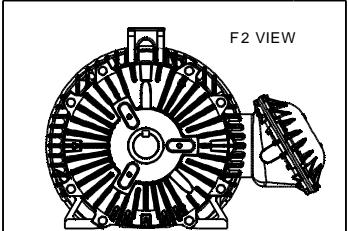
Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.048 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	41.35 in
Frame Length	18.25 in	Shaft Diameter	3.375 in
Shaft Extension	8.75 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	B-SS515577-1825	Connection Drawing	A-EE7308AD

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NOTES:
 1. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



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]

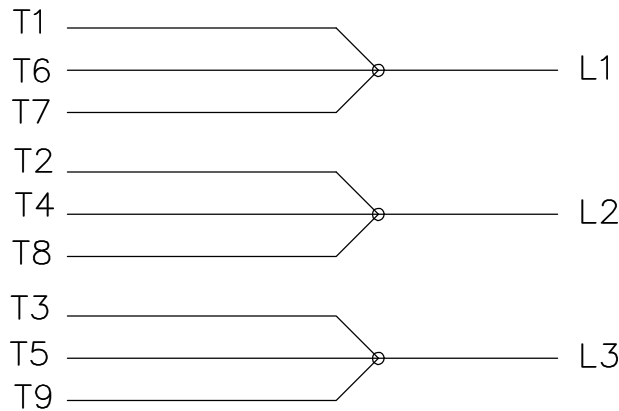
DRAWING REVISION E	REVISION BY JHA	DATE 03-02-2015
ECO ECO-0072728	APPROVED BY TDB	DATE 03-03-2015
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH.	mm	ANGLE
.X	±0.1	[±2.5]	27°30'
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [076/.381] X 45°			
CORNER FILLETS: R.02 [51]			
MACHINED SURFACES: 200 √ INCH/mm 5.1			
mm SHOWN IN [BRACKETS]			

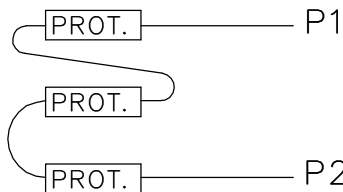
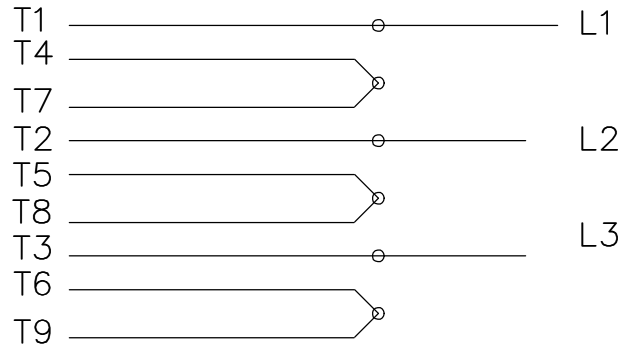
DRAWN BY SMC
DATE 04-15-1996
APPROVED BY JPN
DATE 04-19-1996
REFERENCE
THIRD ANGLE PROJECTION

Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 444/445T FR. - EXPLOSION PROOF	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS515577
	SHEET 1 OF 1

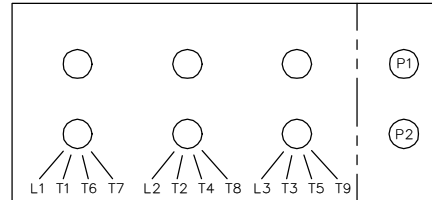
LOW VOLTAGE



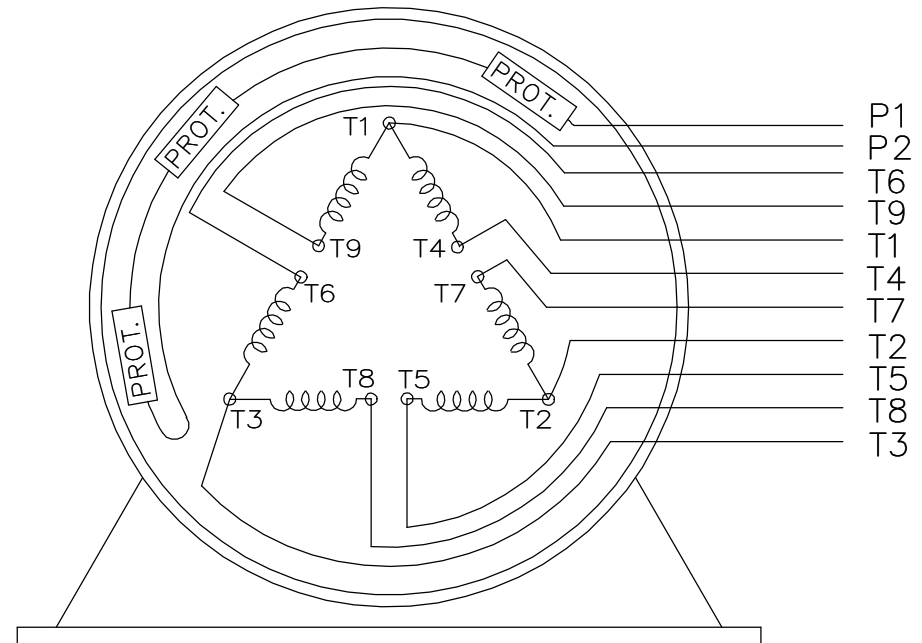
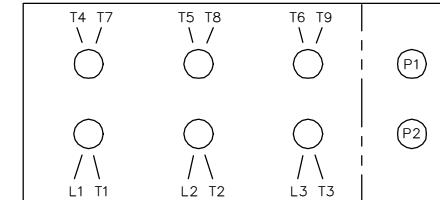
HIGH VOLTAGE



LOW VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

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

DRAWING REVISION L	REVISION BY JP	REV DATE/© DATE 06-21-2019	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 MJD	Regal Beloit America, Inc.	
ECO ECO-0168744	APPROVED BY MH	DATE 06-21-2019		DATE 12-19-1997		
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS			REMOVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL		
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						REFERENCE

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
			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

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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**

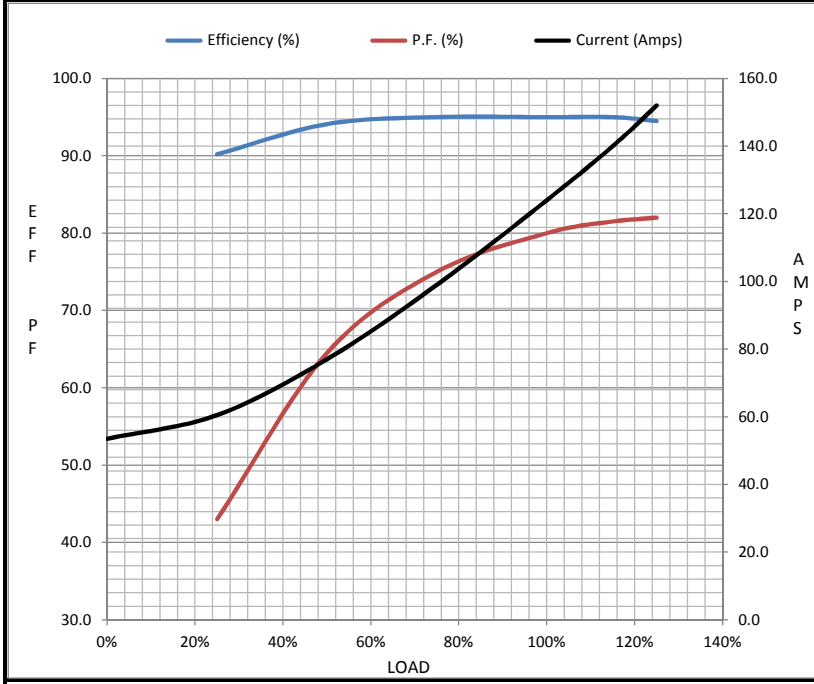
Motor Load Data

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 ²	55.0 Lb-Ft ²			
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

