

PRODUCT INFORMATION PACKET

Model No: 405TTGS16539

Catalog No: U035A

Hazardous Duty® Explosion Proof Motor, 100 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 405T Frame, EPFC



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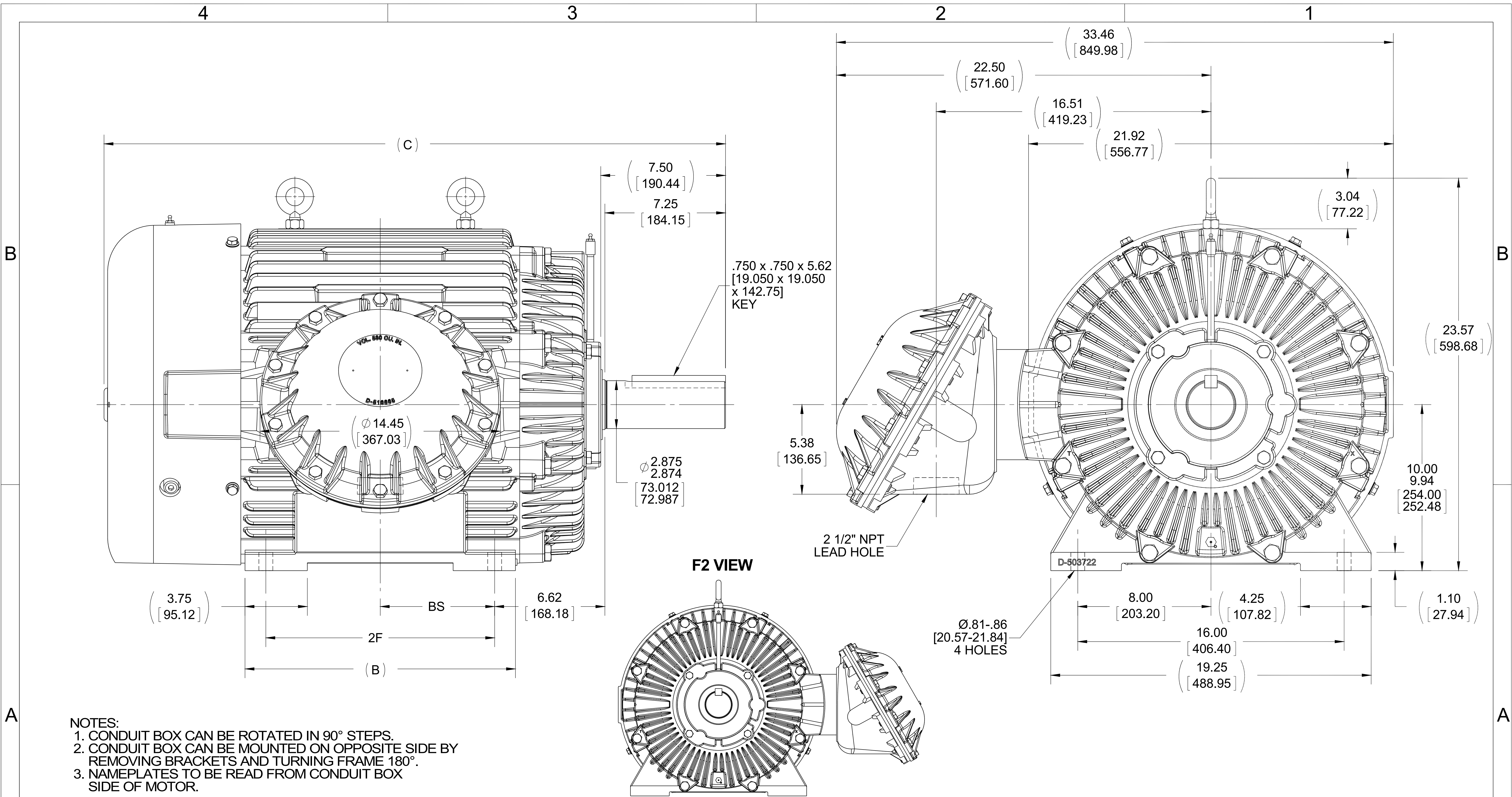


Nameplate Specifications

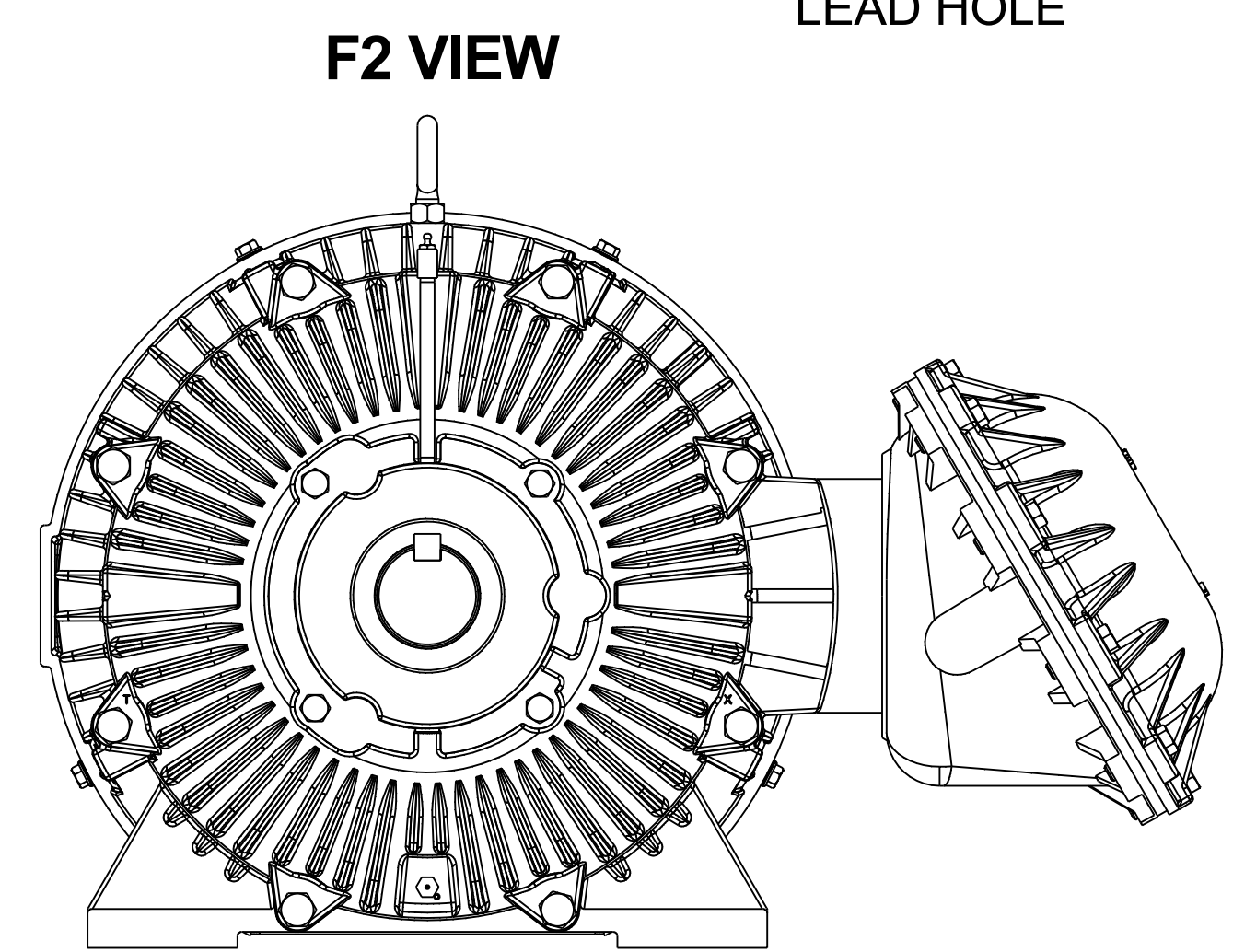
Phase	3	Output HP	100 Hp
Output KW	75.0 kW	Voltage	575 V
Speed	1780 rpm	Service Factor	1.15
Frame	405T	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	90.5 A	Power Factor	87
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6313
UL	UL Listed And CSA Certified	CSA	Y
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	4	Rotation	Reversible
Resistance Main	.054 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	37.75 in
Frame Length	16.75 in	Shaft Diameter	2.875 in
Shaft Extension	7.5 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	B-SS518936-1675	Connection Drawing	A-EE7300S



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	BS
1525	404T	14.75 [374.65]	35.85 [910.59]	12.25 [311.15]	6.12 [155.45]
1675	405T	16.25 [412.75]	37.35 [948.69]	13.75 [349.25]	6.88 [174.75]

DRAWING REVISION E	REVISION BY JJB	DATE 02-19-2016
ECO ECO-0091102	APPROVED BY JHA	DATE 02-19-2016
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	± 0.1	[± 2.5]	$\pm 7' 30''$
.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 [0.51]
 MACHINED SURFACES: 200 INCH $\sqrt{5.1}$ mm $\sqrt{5.1}$
 mm SHOWN IN [BRACKETS]

DRAWN BY
MSG

DATE
03-06-2002

APPROVED BY
JES

DATE
03-20-2002

REFERENCE

THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
400T FR. - TEFC - EXP. PR. - (STD.)

MATERIAL

PROCESS/FINISH

SIZE
B

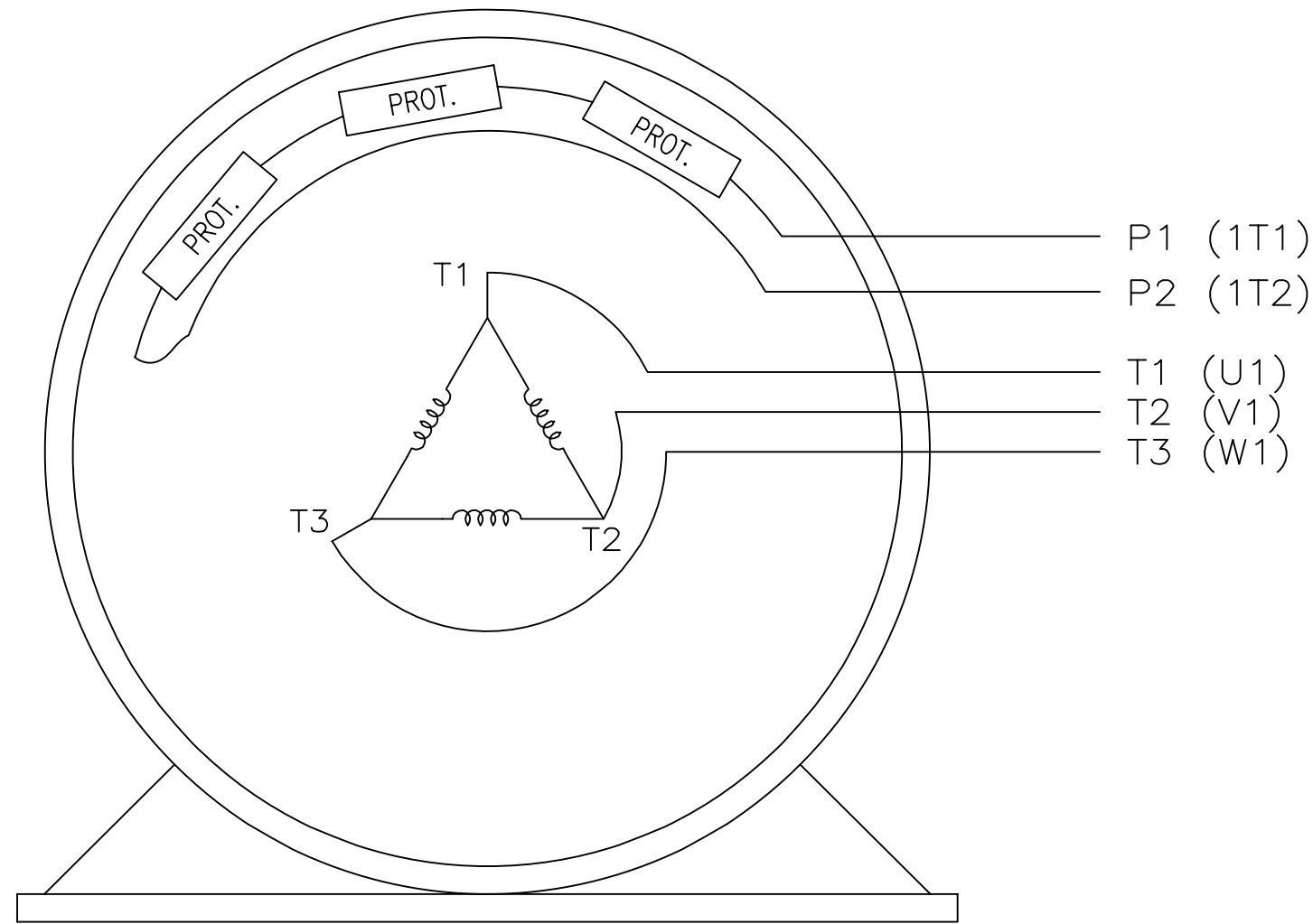
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SS518936

SHEET
1 OF 1

EE7300S

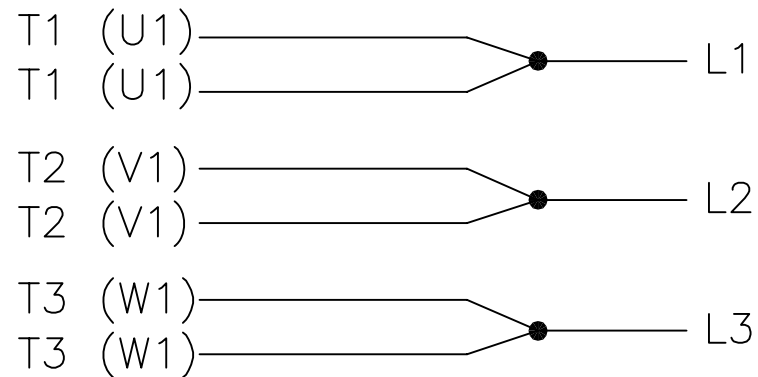
THREE PHASE – SINGLE VOLTAGE MOTOR

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



VIEW OF TERMINAL END

IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S



A-9806 DECAL

NO.	REVISION	BY & DATE	CHK	TOLERANCES UNLESS SPECIFIED			REGAL-BELOIT CORPORATION	DRAWN KL 12-15-1999		
				DEC.	INCHES					
F	UPDATED TITLE BLOCK	HV 02-27-2014	EWB	.X	±	-	REGAL-BELOIT CORPORATION	CHK DJK 12-15-1999		
3	REMOVED "N.C." FROM PROT.'S MU61770	JJB 08-02-2010		.XX	±	-	TITLE CONNECTION DIAGRAM – EXTERNAL SINGLE VOLTAGE 3Ø MOTOR	APPD DJK 12-15-1999		
2	ADDED IEC MARKINGS MU61770	KL 09-16-2004	EAB	.XXX	±	-		SCALE 1=1		
1	NEW DRAWING	KL 12-16-1999		.XXXX	±	-	MAT'L.	REF		
				ANG	±	-	FINISH	FMF		
			RFP				CAD FILE ee7300s	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				DIST	WA-LB-SB		SIZE A	DRAWING NO. EE7300S	PAGE OF	REV. F

CERTIFICATION DATA SHEET

Model#: 405TTGS16539 AN **WINDING#:** T405472 NONE 7
CONN. DIAGRAM: A-EE7300S **ASSEMBLY:** F1 ONLY
OUTLINE: B-SS518936-1675

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75	1800	1780	405T	EPFC	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	90.5	LINE OR INVERTER	CONTINUOU S	F1	1.15/1.15	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95.8	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 87	3/4 LOAD PF: 86	1/2 LOAD PF: 81.5	95	SQ CAGE INV RATED	22.4

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
295 LB-FT	540	445 LB-FT 151	715 LB-FT 242	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	27 LB-FT^2	550 LB-FT^2	25 SEC.	2	1400 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
6314	6312						

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

INVERTER TORQUE: CONSTANT 2:1
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

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DATE: 06/22/2017 01:05:28 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



405TTGS16539

Submittal

Data @ 575 V

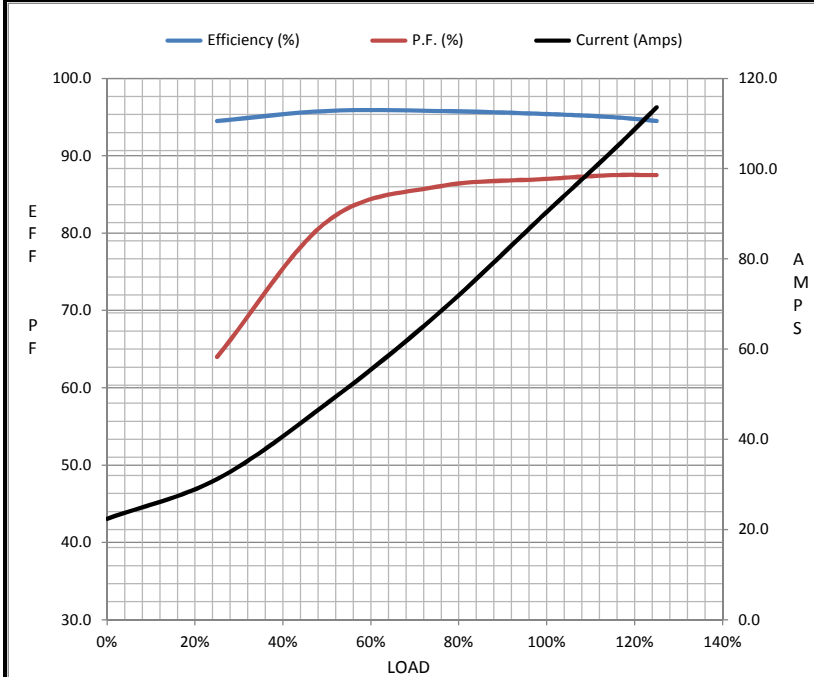
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	22.4	31.2	48.0	67.6	90.4	104	114	540
Torque (ft-lb)	0.00	73.0	147	221	295	341	370	445
RPM	1800	1795	1790	1785	1780	1,775	1770	0
Efficiency (%)		94.5	95.8	95.8	95.4	95.0	94.5	
P.F. (%)	4.5	64.0	81.5	86.0	87.0	87.5	87.5	28.0

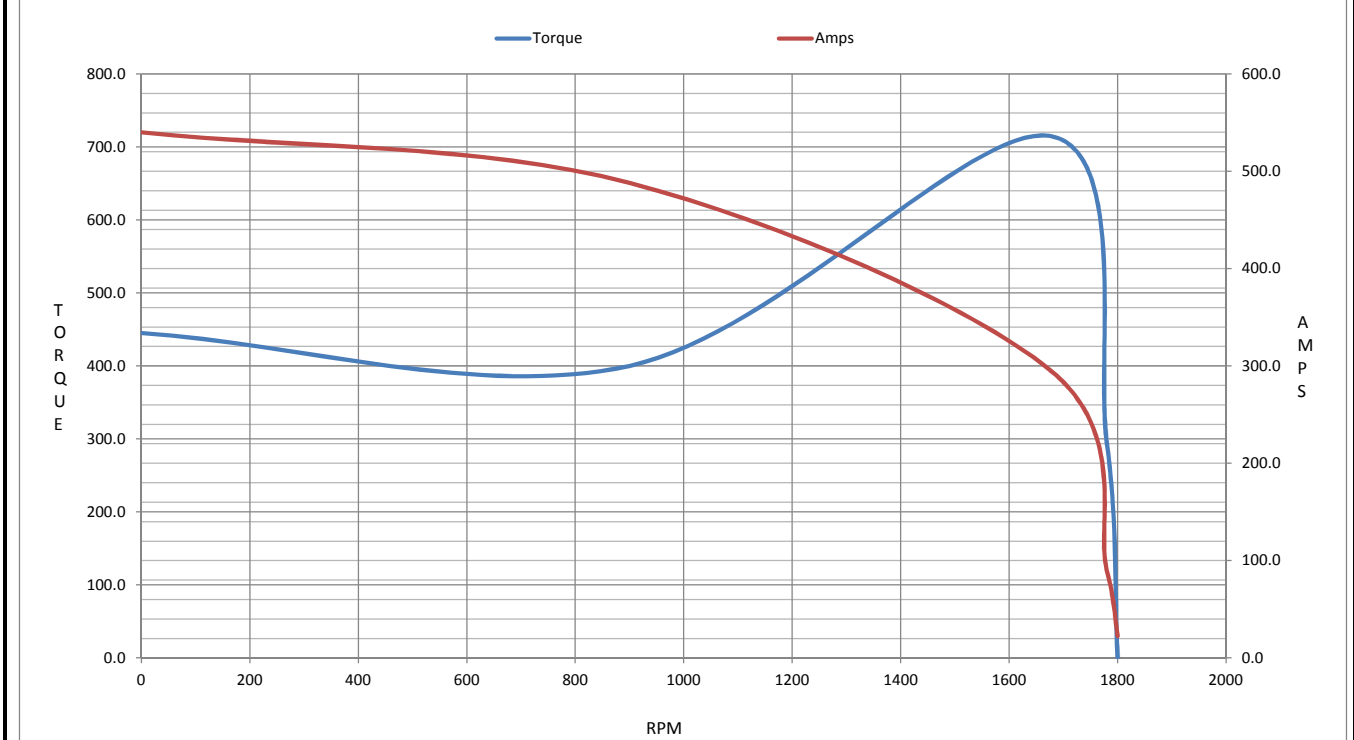
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1780	1800
Current (Amps)	540	488	296	90.4	22.4
Torque (ft-lb)	445	400	715	295	0.00

Information Block				
HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	575 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	75 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	27.0 Lb-Ft ²			
Ref Wdg	T405472 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS518936-1675			
Conn. Diag	A-EE7300S			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0670	0.0440	0.4660	0.4350	14.3780



Speed - Torque Curve



CERTIFICATE OF COMPLIANCE

Certificate Number 20220524- E12044
Report Reference E12044-19750529
Issue Date 2022-MAY-24

Issued to: REGAL BELOIT AMERICA INC
1946 W COOK RD
FORT WAYNE IN 46818

Tradename: Marathon

This certificate confirms that representative samples of

MOTORS FOR USE IN HAZARDOUS LOCATIONS

Electric motors for use in hazardous locations; Class I, Groups C and D; Class II, Groups F and G; Inclusive of Model Number 405TTGS16539 (may have prefix and/or suffix characters).

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety:

UL 674 - Electric Motors and Generators for Use in Division 1 Hazardous (Classified) Locations,
CSA C22.2 No. 145, Electric Motors and Generators for Use in Hazardous (Classified) Locations

Additional Information:

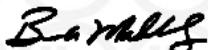
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Bruce Mahrenholz, Director North American Certification Program

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