

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 405THFCD8036

Catalog No: Y575A

Blue Max® Inverter Duty Encoder Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405T Frame, TEFC



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RegalRexnord

Nameplate Specifications

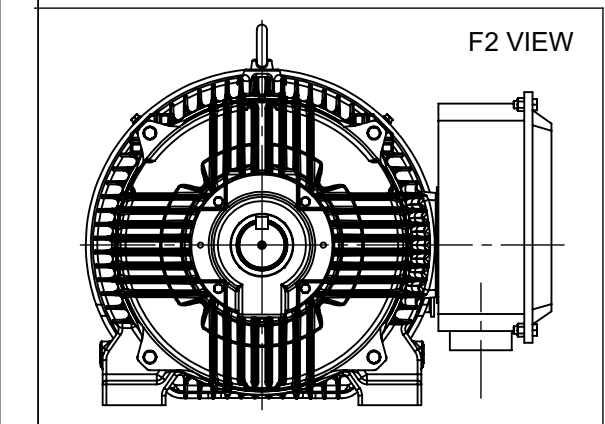
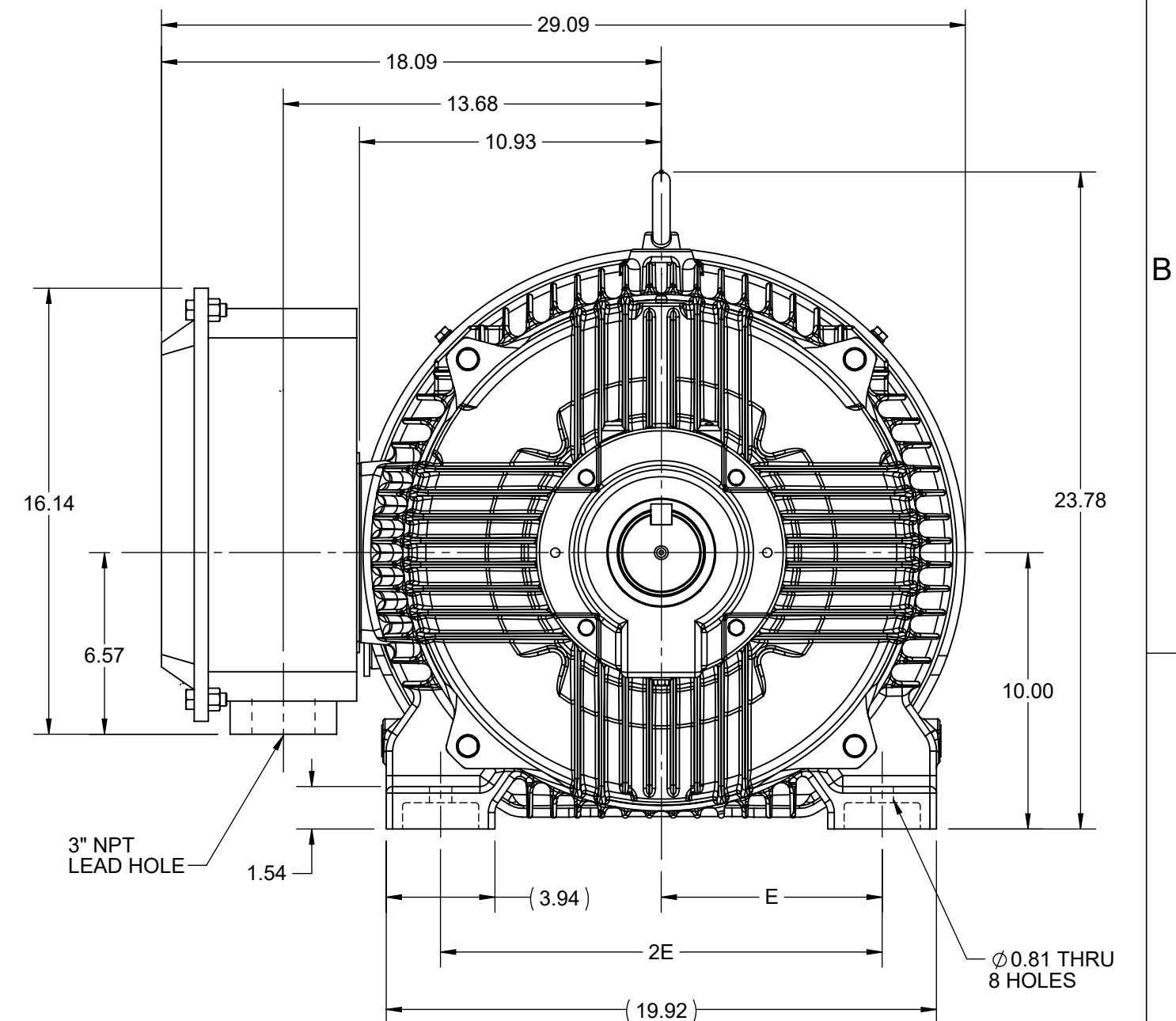
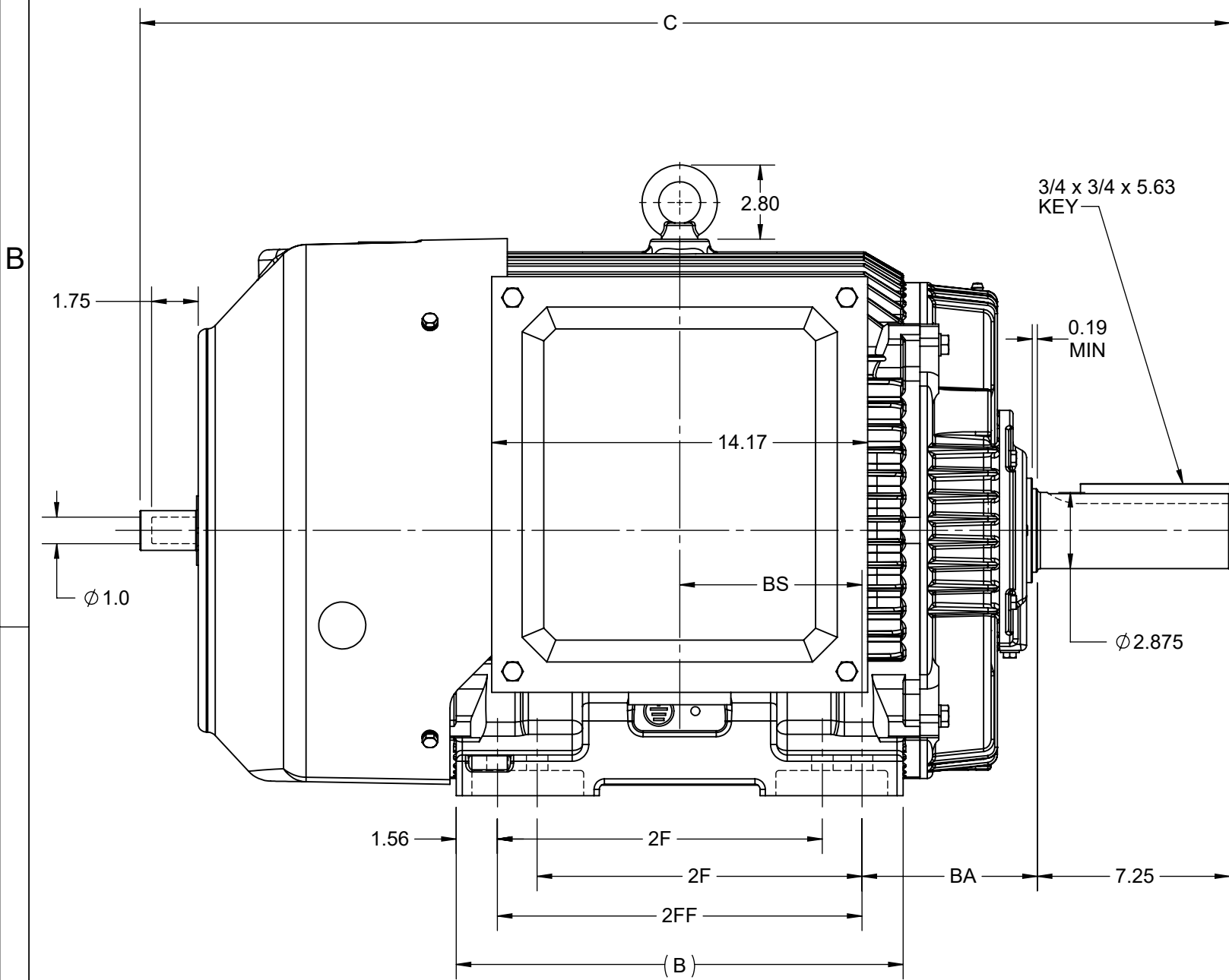
Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	224.0/112.0 A	Speed	1785 rpm
Service Factor	1	Phase	3
Efficiency	95.4 %	Power Factor	87
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	K
Frame	405T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6314
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.0509 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	2.875 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2000:1
Outline Drawing	SS621056	Connection Drawing	EE7308AD

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	4				3				
B	C	E	2E	2F	2FF	BA	BS	MOUNTING	
16.85	41.06	8.00	16.00	12.25	13.75	6.62	6.87	F1 OR F2	

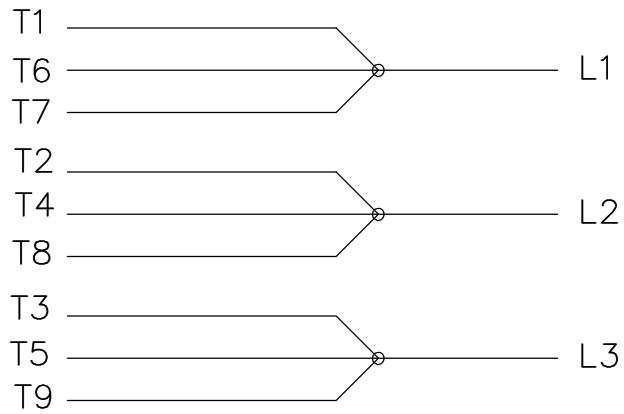


DRAWING REVISION B	REVISION BY JP	REV DATE/© DATE 21/07/2021
ECO CR-0003664	APPROVED BY GNK	DATE 21/07/2021
ECO DESCRIPTION DRAWING UPDATED		
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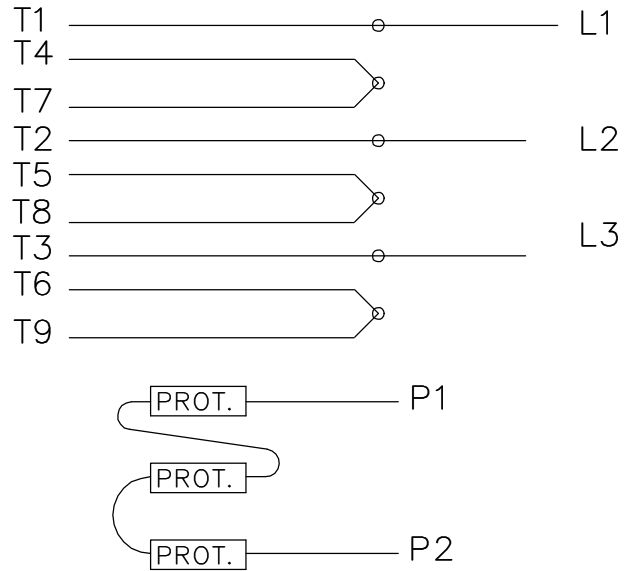
PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY MSH	REGAL ® Regal Beloit America, Inc.
DATE 02/09/2020	
APPROVED BY SBD	DESCRIPTION OUTLINE
DATE 02/09/2020	404/405T FR-NEMA-TEFC-CAST IRON - TACH. MTG.
REFERENCE	MATERIAL PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS621056
	SHEET 1 OF 1

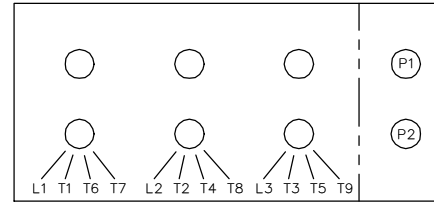
LOW VOLTAGE



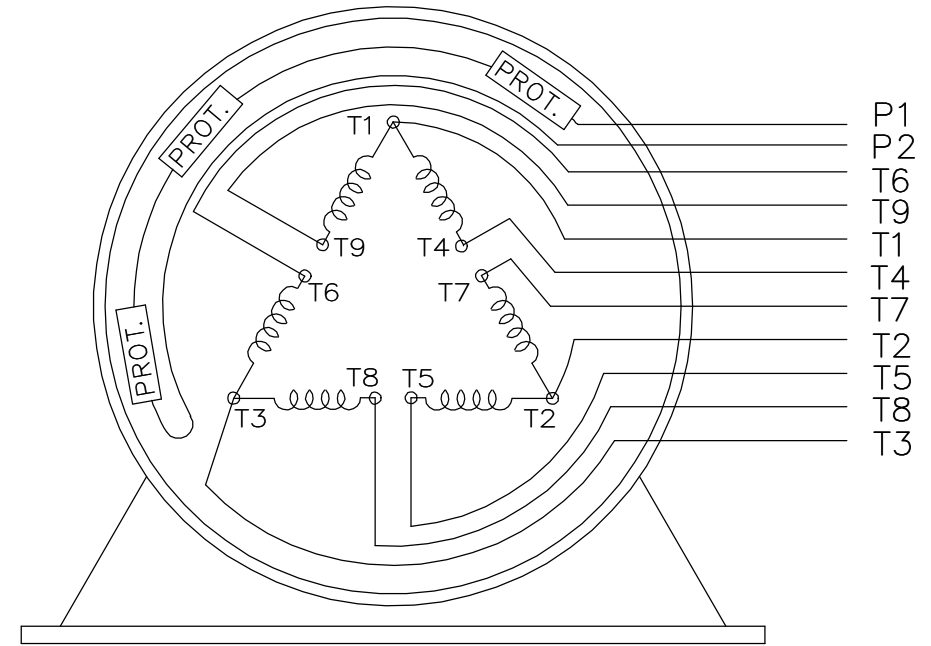
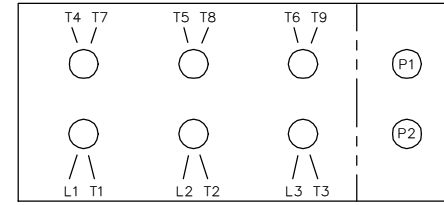
HIGH VOLTAGE



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] .XX ±0.02 [±0.5] .XXX ±0.005 [±0.13] .XXXX ±0.0005 [±0.013]	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			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45° CORNER FILLETS: R.02 [.5] MACHINED SURFACES: 200/ 5.1 INCH/mm	APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL
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			SIZE A	DRAWING NUMBER EE7308AD	SHEET 1 OF 1



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #: _____
CONN. DIAGRAM: EE7308AD
OUTLINE: SS621056
WINDING: HA32504014 NONE 2
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 405THFCD8036
CAT #: Y575A
CUSTOMER PART #: _____
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1785	405T	TEFC	TFN	K	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	224/112	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.6	1/2 LD EFF	95.0	GTD EFF	ELECT. TYPE
F.L. PF	87.0	3/4 LD PF	83.0	1/2 LD PF	73.0	95.0	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
294 LB-FT	1,117	710 LB-FT	241%	1,087 LB-FT 370%

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
75 dBA	84 dBA		9.065 LB-FT ²	130 LB-FT ²	20 SEC.	2	1275 LB.	

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	ENCODER	RIGID	HORIZONTAL	NO	NONE	YES	NONE	BLUE (ENAMEL)

DE	ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6314						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (NIC)	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
0.032	0.017	0.166	0.174	6.007	0.150	ODE

NOTES	INVERTER TORQUE: CONSTANT 2000:1	
	INV. HP SPEED RANGE: 1.5 X BASE SPEED	
	ENCODER: NONE	
	NONE PPR	

PREPARED BY: _____	BRAKE: NONE
DATE: 9/27/2021	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
FORM: 3531 REV. 4 2/27/06	UL: V-INS, CONST, OVERHEAT PRT DEV UL REC

Data Sheet

Date: 9/27/2021
 Customer: _____
 Attention: _____
 Submitted by: _____



405THFCD8036

Submittal

Data @ 460 V

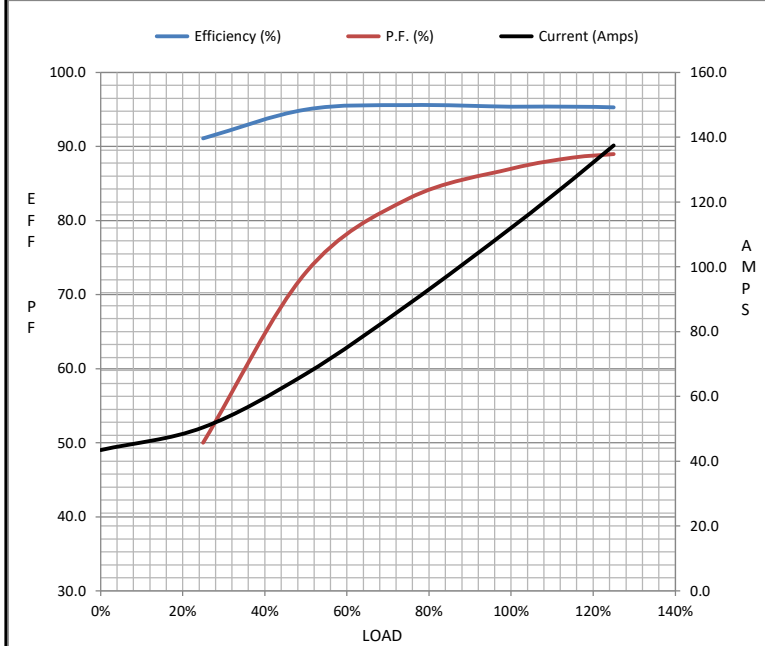
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	43.5	50.5	67.0	88.5	112	127	138	1,117
Torque (ft-lb)	0.00	73.0	146	220	294	338	368	710
RPM	1800	1795	1790	1790	1785	1,785	1780	0
Efficiency (%)		91.1	95.0	95.6	95.4	95.4	95.3	
P.F. (%)	4.5	50.0	73.0	83.0	87.0	88.5	89.0	34.0

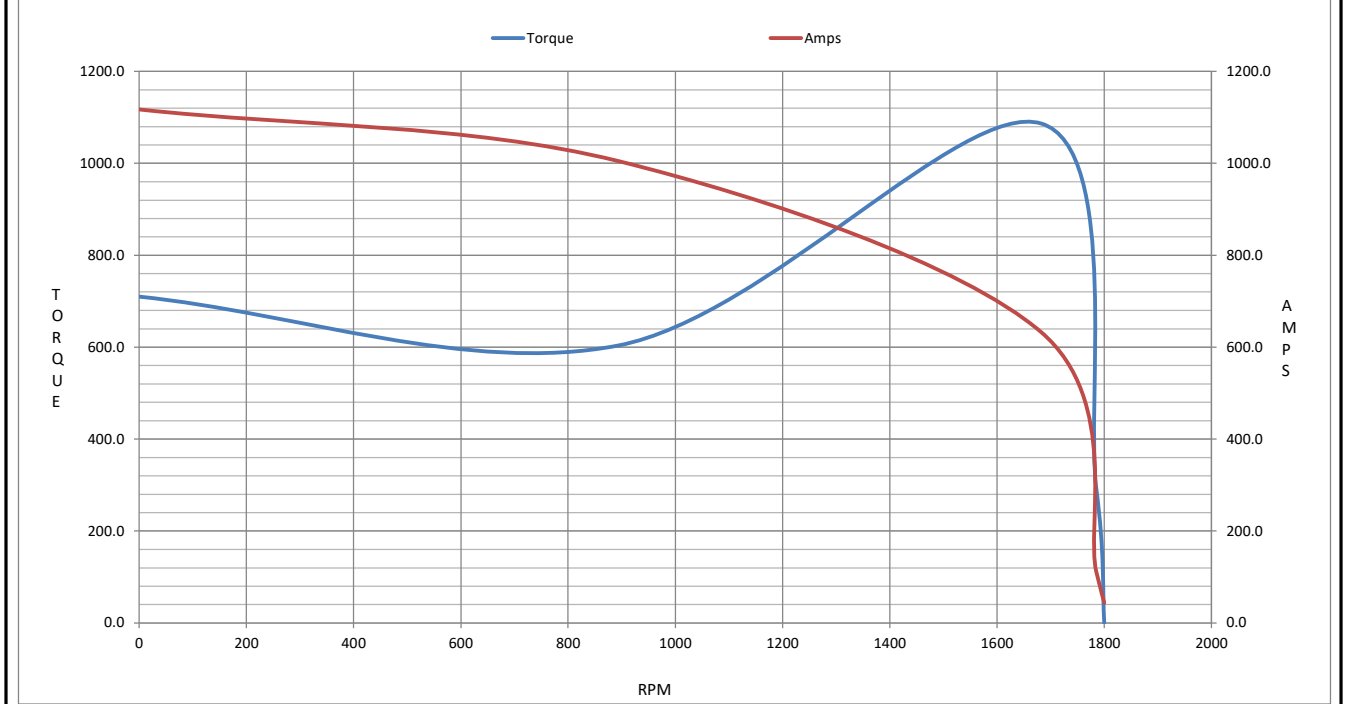
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	893	1682	1785	1800
Current (Amps)	1,117	1,005	633	112	43.5
Torque (ft-lb)	710	604	1,087	294	0.00

Information Block				
HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	9.065 Lb-F ²			
Ref Wdg	HA32504014 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS621056			
Conn. Diag	EE7308AD			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0320	0.0170	0.1660	0.1740	6.0070



Speed - Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 405THFCD8036

(Model No. may contain prefix and/or suffix characters)

Catalog No : Y575A

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22