

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 256TTGN16004

Catalog No: C308B

Hazardous Duty® Explosion Proof Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
3600 & 3000 RPM, 256TC Frame, EPFC



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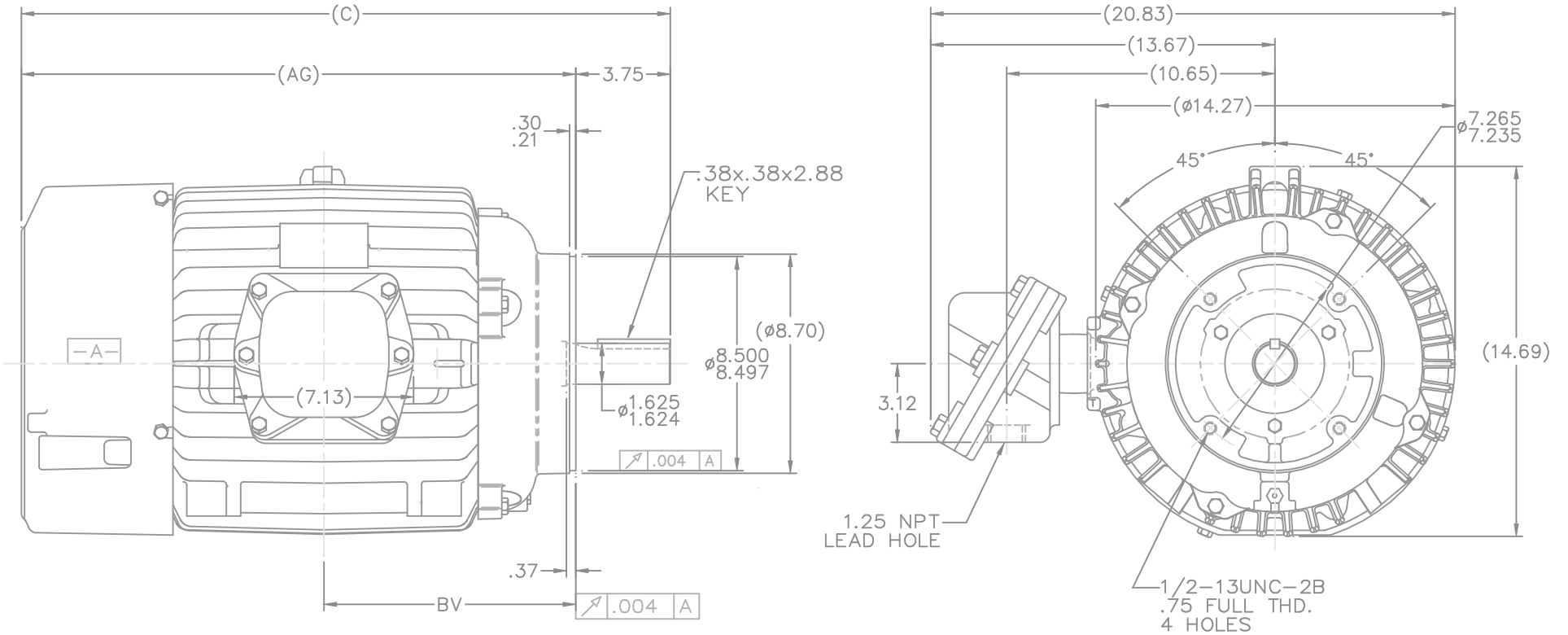
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	20 & 15 Hp
Output KW	14.9 & 11.2 kW	Voltage	230/460 & 190/380 V
Speed	3537 & 2955 rpm	Service Factor	1.15 & 1.15
Frame	256TC	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	92.4 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	47/23.4 & 42/21 A	Power Factor	86
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6210
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Number of Speeds	1	Hazardous Location	EXP PROOF CL I GR C&D CL II GR F&G T3B

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.394 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	25.77 in
Frame Length	12.26 in	Shaft Diameter	1.625 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Outline Drawing	B-SS207446-1225	Connection Drawing	A-EE7308T



NOTES:

1. BOX CAN BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

DASH	FRAME	C	AG	BV
1225	254-6TC	25.77	22.02	10.00

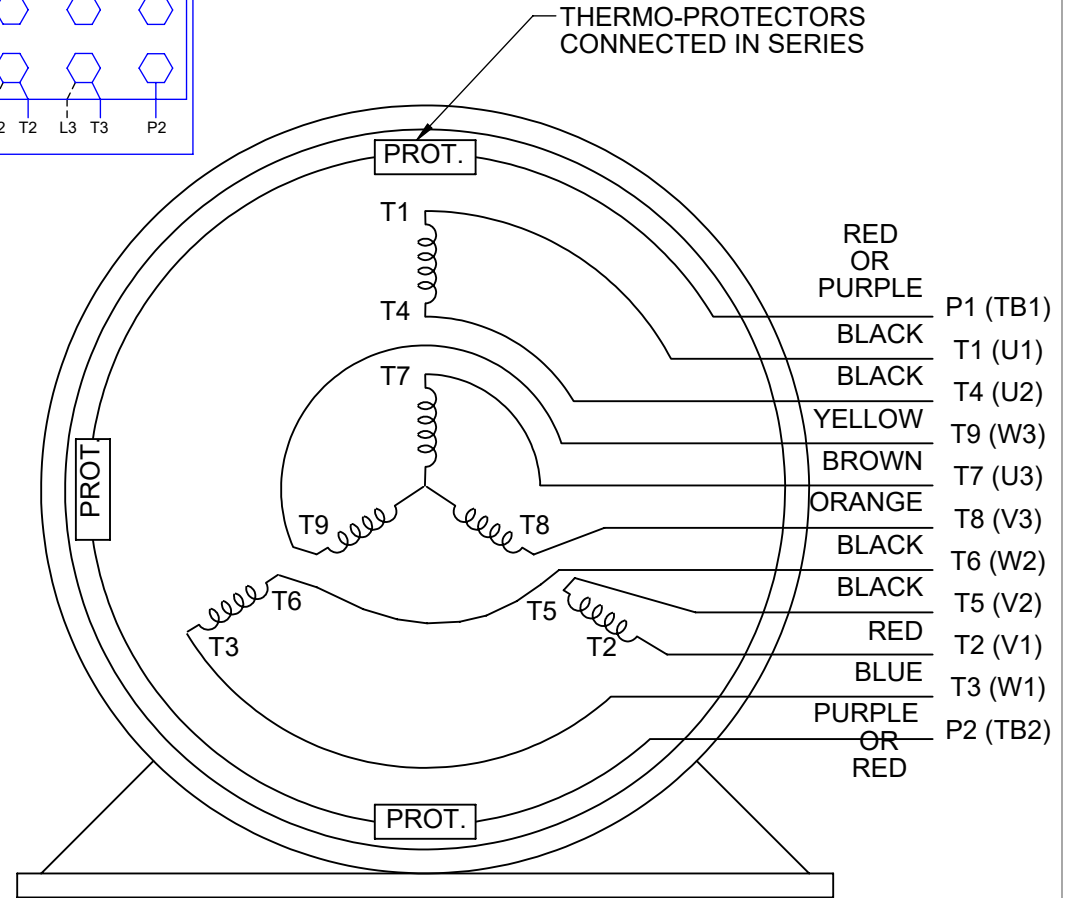
		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN MH 02-05-1998	
		DEC.	INCHES			CHK ML 02-06-1998	
		.X	±.1	TITLE OUTLINE		APPD TB 02-06-1998	
		.XX	±.03	254-6TC FR. -EXP. PR. - 'C' FACE		SCALE 1=4	
		.XXX	±.005	MAT'L		REF	
		.XXXX	±.0005	FINISH		FMF	
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	PREV	
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				RFP	02-06-1998	CAD FILE	ss207446
						SIZE	DRAWING NO. PAGE 1 OF 1 REV.
						B	SS207446 2

HIGH VOLTAGE



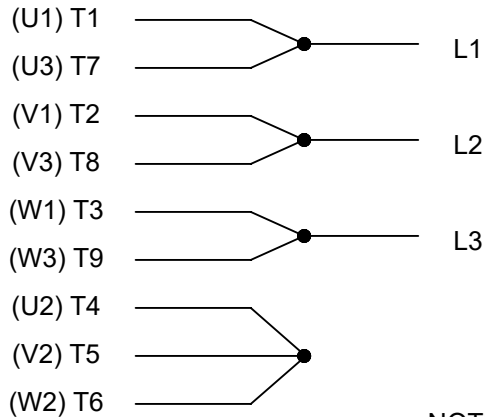
**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR
<small>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.</small>				DATE 05-13-1992	MATERIAL
			REFERENCE EE7308/EE7300	THIRD ANGLE PROJECTION	SIZE A



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____ CUSTOMER P.O. #: _____
 ORDER #: _____ REFERENCE MODEL #: 256TTGN16004
 CONN. DIAGRAM: A-EE7308T CAT #: C308B
 OUTLINE: B-SS207446-1225 CUSTOMER PART #: _____
 WINDING: K256288 NONE 10 MOUNTING: F1 ONLY
 SPEED: _____

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	3600	3537	256TC	TEFC	TFN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	47/23.4&42/21	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	91.7	1/2 LD EFF	91.0	GTD EFF	91.7	ELECT. TYPE	SQ CAGE INV RATED
F.L. PF	86.0	3/4 LD PF	85.0	1/2 LD PF	78.0				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
29.7 LB-FT	145	55.0 LB-FT 185%	84.0 LB-FT 283%	55

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
72 dBA	81 dBA	1.30 LB-FT²	26 LB-FT²	20 SEC.	2	370 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	HORIZONTAL	NO	DF CL I GR C&D CL II GR	NO	NONE	BLUE (ENAMEL)

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
6309	6210						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.253	0.223	1.079	1.119	37.772	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 10:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE	
	NONE PPR	

PREPARED BY: FAREEDA DUDEKULA	BRAKE: NONE
DATE: 9/10/2018	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:
	UL: NONE

FORM: 3531 REV_4 2/27/06

Data Sheet

256TTGN16004

Date: 11/29/2018
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

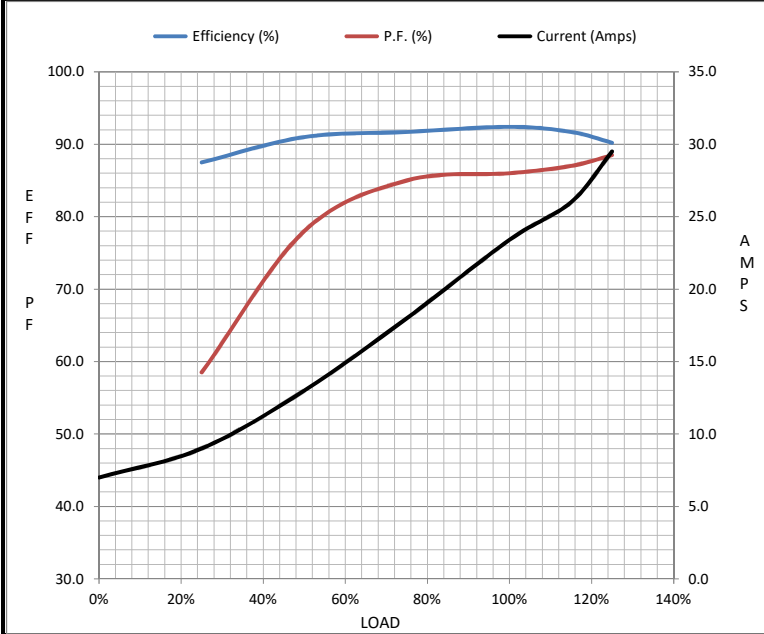
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	7.0	9.0	13.0	18.0	23.4	26.0	29.5	145
Torque (ft-lb)	0.00	7.5	15.0	22.0	29.7	31.0	37.5	55.0
RPM	3600	3585	3570	3555	3537	3,525	3515	0
Efficiency (%)		87.5	91.0	91.7	92.4	91.7	90.2	
P.F. (%)	10.5	58.5	78.0	85.0	86.0	87.0	88.5	37.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3155	3537	3600
Current (Amps)	145	131	100	23.4	7.0
Torque (ft-lb)	55.0	50.0	84.0	29.7	0.00

Information Block

HP	20.0			
Sync. RPM	3600			
Frame	256			
Enclosure	EPFC			
Construction	TGS			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	1.30 Lb-Ft ²			
Ref Wdg	K256288 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS207446-1225			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2530	0.2230	1.0790	1.1190	37.7720



Speed - Torque Curve



CERTIFICATE OF COMPLIANCE

Certificate Number 20220314- E12044
Report Reference E12044-19950413
Issue Date 2022-MARCH-14

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 256TTGN16004 (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

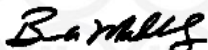
Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.



Bruce Mahrenholz, Director North American Certification Program

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