PRODUCT INFORMATION PACKET

Model No: 213THES8053
Catalog No: Y981
Blue Max® Hazardous Duty® Explosion Proof Motor, 5 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 213TC Frame, EPNV

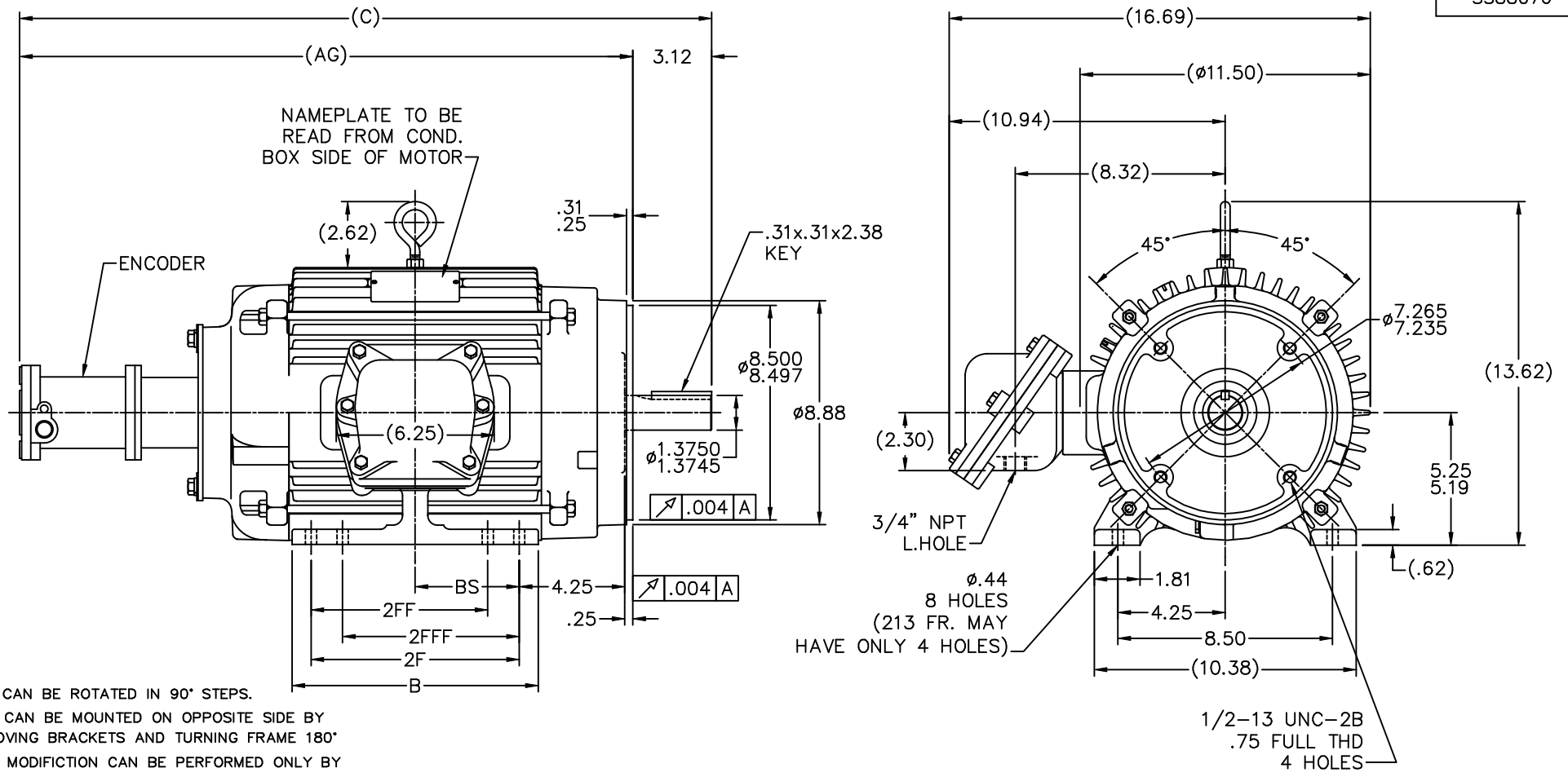
Nameplate Specifications

Output HP	5 Hp	Output KW	3.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	13.0/6.5 A	Speed	1765 rpm
Service Factor	1	Phase	3
Efficiency	90.2 %	Power Factor	79.5
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	K
Frame	213TC	Enclosure	Explosion Proof Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6309
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Hazardous Location	DIV 1 EXP PROOF CL I GR D CL II GR FG T3C	Number of Speeds	1

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	1.82 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	26.17 in
Frame Length	8.75 in	Shaft Diameter	1.375 in
Shaft Extension	3.12 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS88076-875	Connection Drawing	A-EE7308T

SS88076



NOTES:

1. BOX CAN BE ROTATED IN 90° STEPS.
2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180° THIS MODIFICTION CAN BE PERFORMED ONLY BY MARATHON ELECTRIC OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATARIES INC.PTKQ,TITLED"MOTOR AND GENERATORS, REBUILT FOR USE ININ HAZARDOUS LOCATIONS".

DASH	FRAME	B	C	BS	2F	2FF	2FFF	AG
725	213TC	7.00	24.67	2.75	5.50	–	–	21.55
875	215TC	8.50	26.17	3.50	7.00	–	–	23.05
875	213/5TC	8.50	26.17	3.50	7.00	5.50	5.50	23.05
1000	213TC	9.75	27.42	4.12	8.25	5.50	5.50	24.30
1000	215TC	9.75	27.42	4.12	8.25	7.00	7.00	24.30

NO.	REVISION	BY & DATE	CHK
5	UPDATED DRAWING	TJW 05/04/2007	
4	UPDATED THE NOTE.	ST 2/13/2007	AT
3	REDREW INTO AUTOCAD / CHANGED LOCATION		
	OF DIM. 2FFF CN 32877	RJW 10-20-2004	ML
2	CORRECTED BRACKET AND ADAPTED CN29200-1575	TJB 03-21-2001	
1	NEW DRAWING MU29393	CAV 03-20-2000	

TOLERANCES UNLESS SPECIFIED: DEC. INCHES; .X ±.1; .XX ±.02; .XXX ±.005; .XXXX ±.0005; ANG ±7'30"

RFP

DIST

MARATHON ELECTRIC

TITLE OUTLINE – EPNV
210T FR. – DBL. C'FACE W/BEI ENCODER

CAD FILE ss88076

MAT'L.

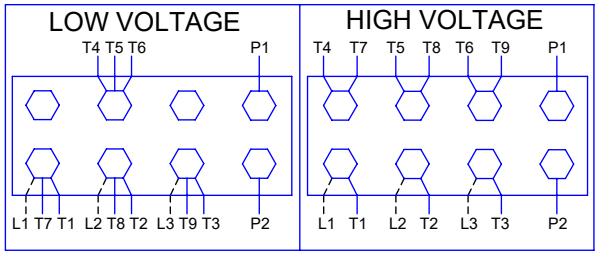
FINISH

DRAWN CAV 03-16-2000
CHK ML 03-20-2000
APPD PH 03-20-2000
SCALE 1=4
REF
FMF
PREV

SIZE	DRAWING NO.	PAGE OF	REV.
B	SS88076		5

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

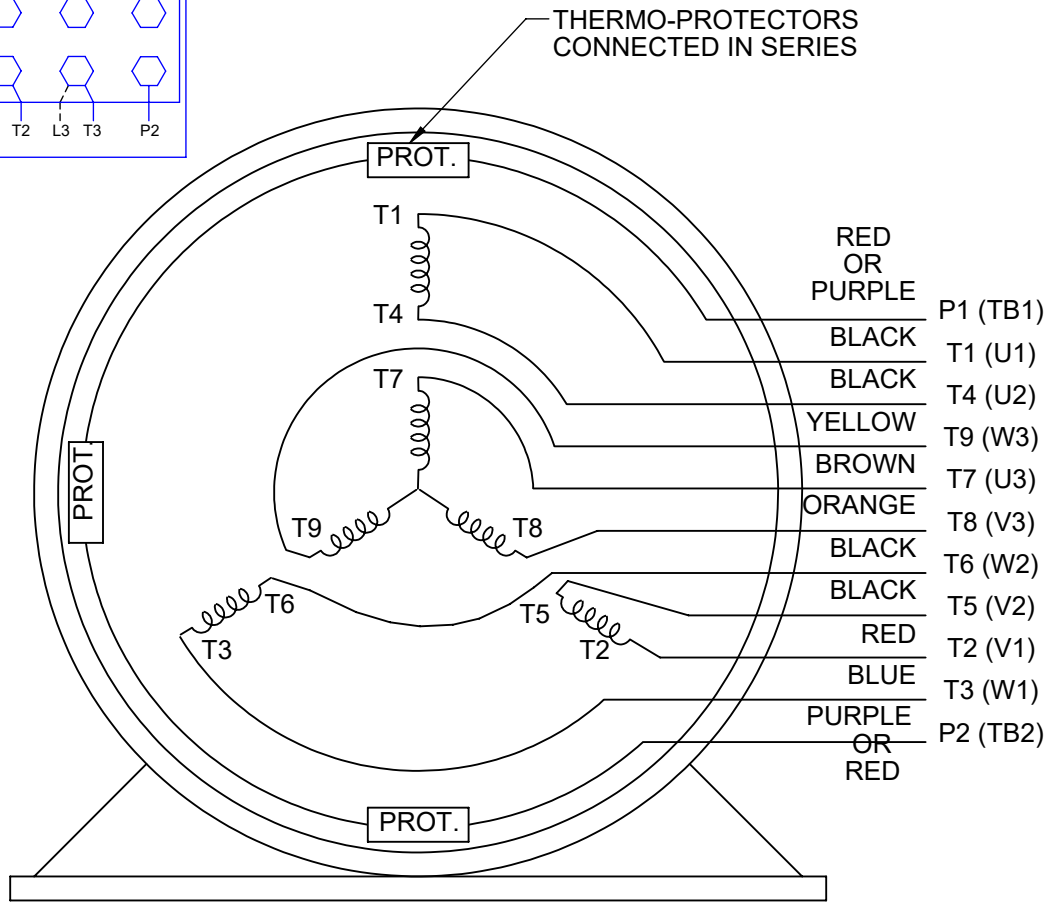


NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6

THREE PHASE DUAL VOLTAGE MOTOR



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
				DATE: 05-13-1992	
				REFERENCE: EE7308/EE7300	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A — DRAWING NUMBER: EE7308T — SHEET: 1 OF 1

CERTIFICATION DATA SHEET

Model#:	213THES8053 BP	**WINDING#:**	K2134251 NONE 1
CONN. DIAGRAM:	A-EE7308T	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS88076-875		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
5	3.70	1800	1765	213TC	EPNV	K	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	13/6.5	INVERTER ONLY	CONTINUOUS	F3	1.0	40	3300

FULL LOAD EFF: 90.2	3/4 LOAD EFF: 90.2	1/2 LOAD EFF: 88.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 79.5	3/4 LOAD PF: 74	1/2 LOAD PF: 63	87.5	SQ CAGE INV DUTY	6 / 3

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
14.9 LB-FT	94 / 47	37 LB-FT 248	42 LB-FT 280	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.8 LB-FT^2	- LB-FT^2	- SEC.	-	155 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
1.2474	0.9072	3.71385	5.29578	84.5964

RM	ZREF	XR	TD	TD0
3203.55	56.7	3.6	0.015	0.265

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	FALSE	EXP PROOF CL I GR D CL II GR F&G T3C	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6309	BALL 6309	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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 2000:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED

ENCODER: REGAL SUPPLIED - REGAL MOUNT
BEI H38
NPS HOLE 1024 PPR

BRAKE: NONE NONE

*
NOTES
*

NONE	P/N NONE		
NONE	NONE		
NONE FT-LB		NONE V	NONE Hz

DATE: 06/21/2017 09:42:34 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

marathon® electric

213THES8053

Submittal

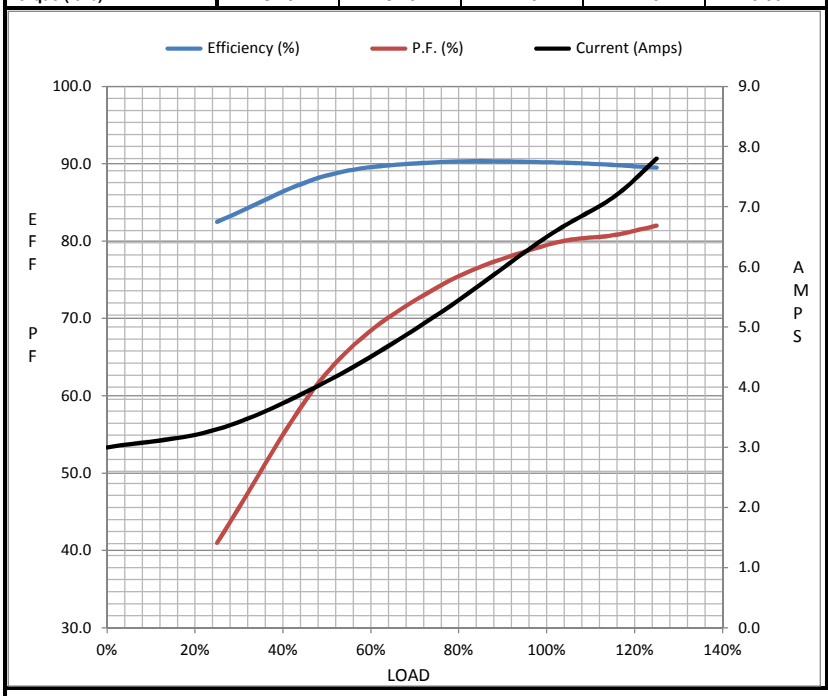
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	3.0	3.3	4.1	5.2	6.5	7.2	7.8	47.0	
Torque (ft-lb)	0.00	3.7	7.4	11.0	14.9	16.8	18.6	37.0	
RPM	1800	1795	1785	1775	1765	1,761	1755	0	
Efficiency (%)		82.5	88.5	90.2	90.2	89.9	89.5		
P.F. (%)	7.0	41.0	63.0	74.0	79.5	80.8	82.0	41.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1550	1765	1800
Current (Amps)	47.0	44.0	26.0	6.5	3.0
Torque (ft-lb)	37.0	32.0	42.0	14.9	0.00



Information Block

HP	5.0
Sync. RPM	1800
Frame	213
Enclosure	TENV
Construction	TTN
Voltage	230/460 V
Frequency	60 Hz
Design	B
LR Code letter	K
Service Factor	1.15
Temp Rise @ FL	80 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	0.80 Lb-Ft²
Ref Wdg	K2134251 NONE
Sound Pressure @ 1M	62 dBA
VFD Rating	CONSTANT 2000:1
Outline Dwg	B-SS88076-875
Conn. Diag	A-EE7308T

Additional Specifications:

0

365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
1.2470	0.9070	3.7140	5.2960	84.5960

Speed -Torque Curve