PRODUCT INFORMATION PACKET

Model No: 254TTDX4315
Catalog No: U437
General Purpose Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM, 254TC Frame, DP

marathon® Motors

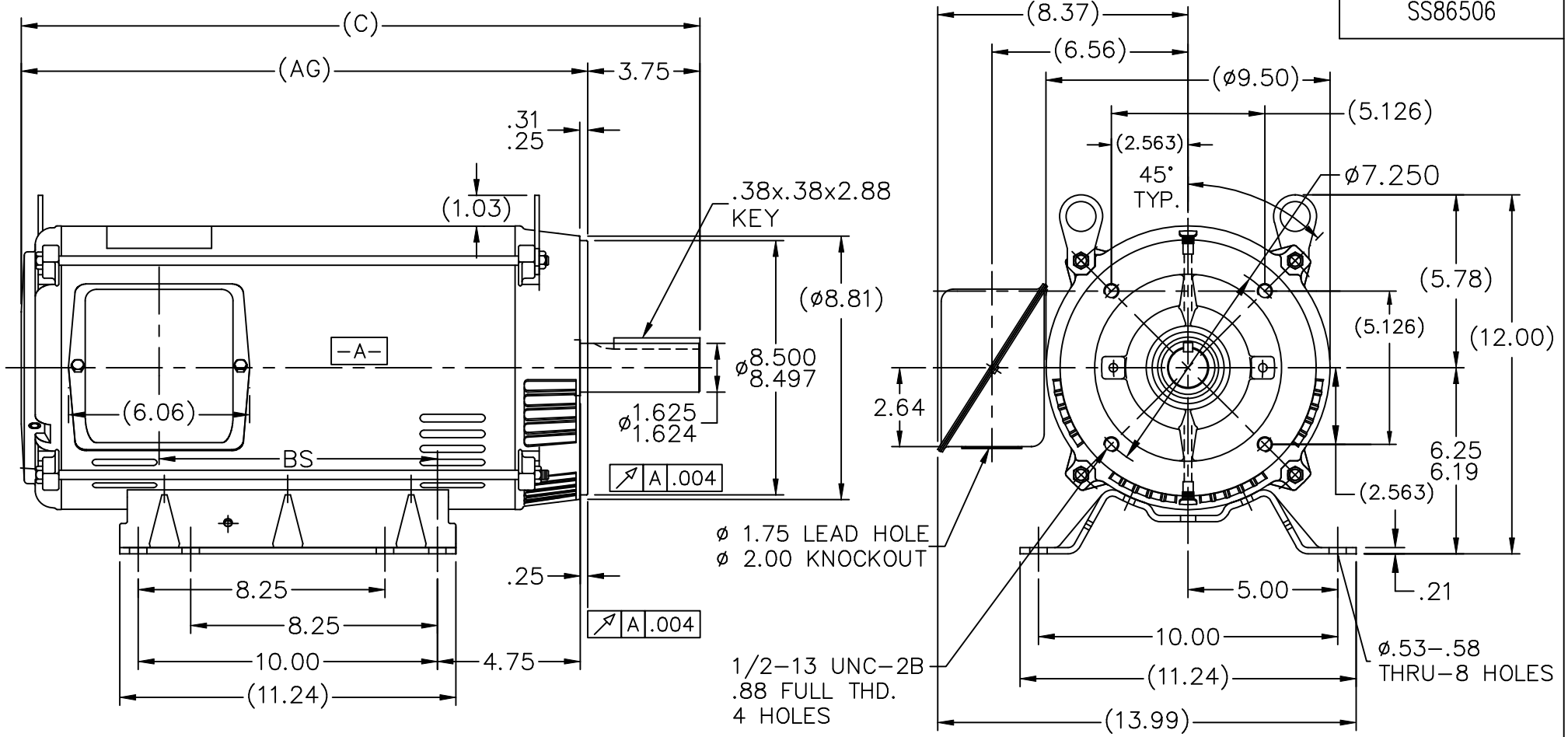
Nameplate Specifications

Phase	3	Output HP	20 & 15 Hp
Output KW	14.9 & 11.2 kW	Voltage	230/460 & 190/380 V
Speed	3520 & 2925 rpm	Service Factor	1.15 & 1.15
Frame	254TC	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	91 & 90.2 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	46/23.1 & 42/21 A	Power Factor	88.6
Duty	Continuous	Insulation Class	B
Design Code	B	KVA Code	F
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6208
UL	Recognized	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start Low Volt Only & Wye Start Delta Run
Poles	2	Rotation	Reversible
Resistance Main	.485 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Overall Length	20.89 in
Frame Length	13.40 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 Capable
Outline Drawing	A-SS86506-1340	Connection Drawing	A-EE7358

SS86506



DASH	FR.	C	BS	AG	MOUNTING
1340	254T	20.89	7.68	17.14	F1 OR F2
1515	254/256T	22.64	9.43	18.89	F1 OR F2

NOTES:
1. NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.
2. BOX CAN BE MOUNTED IN 90° STEPS.
3. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. (EXCEPT AS NOTED.)

NO.	REVISION	BY & DATE	CHK
5	UPDATED DRAWING	TJW 04/27/2007	
4	REDRAWN IN AUTOCAD	TAT 06-29-2004	ML
3	UPDATED C' BOX CN 28427	MSG 02-07-2001	
2	DASH 1515 WAS FOR 256T FR. ONLY CN 18683	KL 10-11-1994	
1	NEW DRAWING	KL 10-01-1993	

TOLERANCES UNLESS SPECIFIED	
DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±7'30"

MARATHON ELECTRIC

DRAWN	KL 09-15-1993
CHK	ML 09-16-1993
APPD	DRN 09-16-1993
SCALE	1=5
REF	
FMF	
PREV	

TITLE OUTLINE
250T FR. – BB – TS – DR.PR. – 'C' FACE

MAT'L.

FINISH

CAD FILE ss86506

RFP

DIST LB

SIZE	DRAWING NO.	PAGE	OF	REV.
A	SS86506			5

7/26/2007 2:52:22 PM -

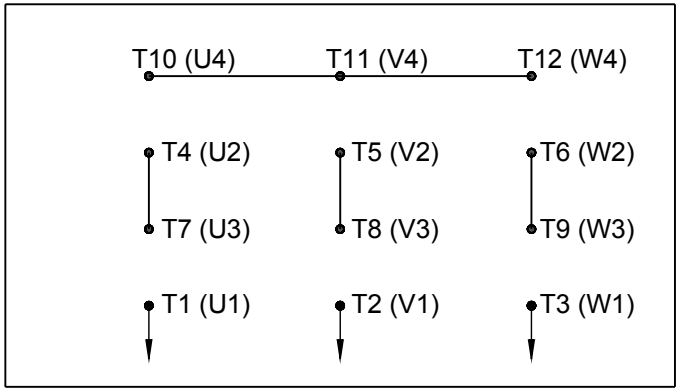
ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

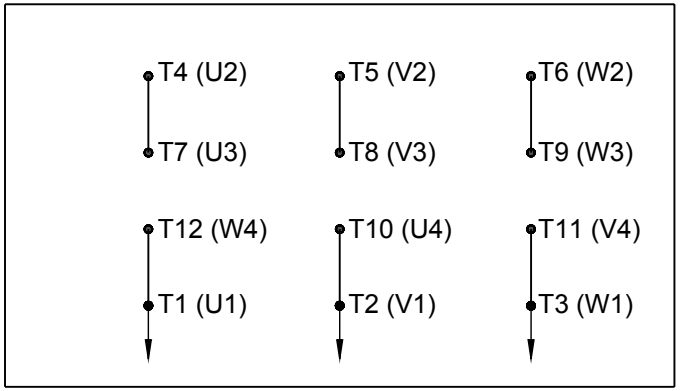
-savelevel-

HIGH VOLTAGE

WYE START

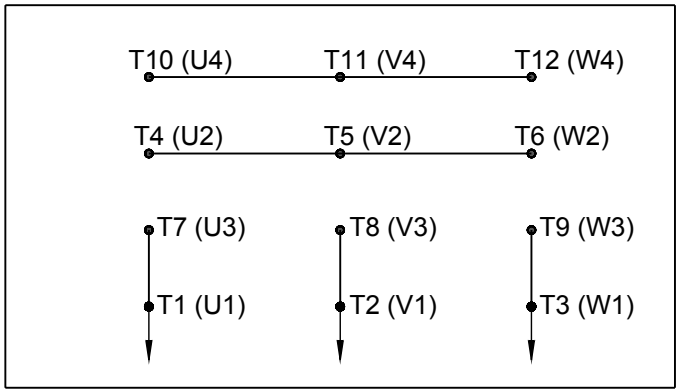


DELTA RUN

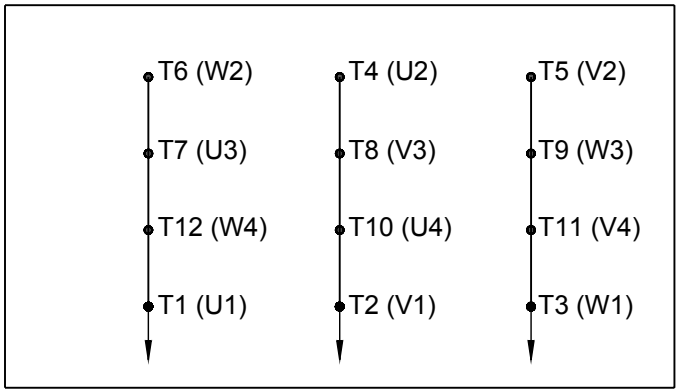


LOW VOLTAGE

WYE START



DELTA RUN



4/2 CKTY △

DRAWING REVISION: D	REVISION BY: JWO	DATE: 01-26-2016		DRAWN BY: BLR	Regal Beloit America, Inc.
ECO: ECO-0092547	APPROVED BY: TB	DATE: 01-26-2016		DATE: 03-09-1998	
ECO DESCRIPTION: ADDED IEC MARKINGS				APPROVED BY: GK	DESCRIPTION: CONN DIAGRAM-EXTERNAL 12 LEAD - DUAL VOLT. - WYE START - DELTA RUN
				DATE: 03-23-1998	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7358 / SHEET: 1 OF 1

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

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: A-EE7358
OUTLINE: A-SS86506-1340
WINDING #: K2152191 1

CUSTOMER PO#:
MODEL #: 254TTDX4315 BB
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20&15	14.9&11.2	3600	3520&2925	254TC	DP	F	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	230/460&190/380	46/23.1&42/21	PWS (LV ONLY) & YDRUN	CONTINUOUS	B3	1.15/1.15	40

FULL LOAD EFF:	91&90.2	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	90.2	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	88.6&88	3/4 LOAD PF:	85.5	1/2 LOAD PF:	78	89.5	SQ CAGE IND RUN

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
30 LB-FT	288 / 144	52.5 LB-FT 175 %	86.5 LB-FT 288 %	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
78 dBA	88 dBA	0.65 LB-FT^2	18 LB-FT^2	15 SEC.	2	160 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	ROLLED STEEL
6309	6208						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

NOTES

*
MECHANICALLY LOCKED ON SHAFT END
F1/F2 CAPABLE
*

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

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

PREPARED BY: Dinesh Suddula **DATE:**
02/14/2019 03:18:49 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 1/4/2019
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

254TTDX4315

Submittal

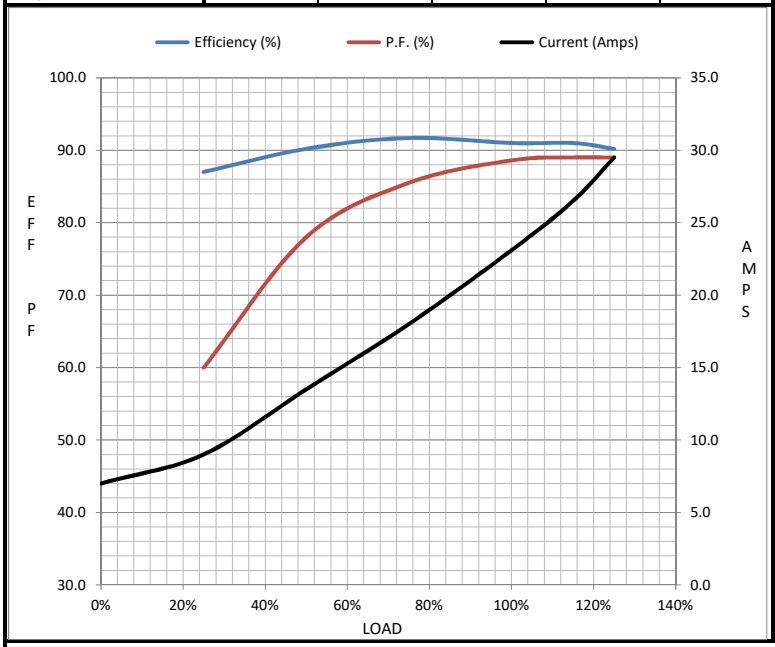
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	7.0	9.0	13.5	18.0	23.1	26.5	29.5	144	
Torque (ft-lb)	0.00	7.5	15.0	22.2	30.0	34.5	37.5	52.5	
RPM	3600	3580	3565	3545	3520	3,515	3490	0	
Efficiency (%)		87.0	90.2	91.7	91.0	91.0	90.2		
P.F. (%)	9.0	60.0	78.0	85.5	88.6	89.0	89.0	40.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3050	3520	3600
Current (Amps)	144	130	90.0	23.1	7.0
Torque (ft-lb)	52.5	48.0	86.5	30.0	0.00



Information Block

HP	20.0
Sync. RPM	3600
Frame	254
Enclosure	DP
Construction	TDX
Voltage	230/460#190/380 V
Frequency	60 Hz
Design	A
LR Code letter	F
Service Factor	1.15
Temp Rise @ FL	45 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	0.65 Lb-Ft²
Ref Wdg	K2152191 NONE
Sound Pressure @ 1M	78 dBA
VFD Rating	NONE
Outline Dwg	A-SS86506-1340
Conn. Diag	A-EE7358
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.2880	0.2300	1.0850	1.1460	35.0740