

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 284TSTDN16031
Catalog No: E793A
25,1800,DP,284TS,3/60/230/460
Open Drip Proof (ODP)



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REGAL[®]



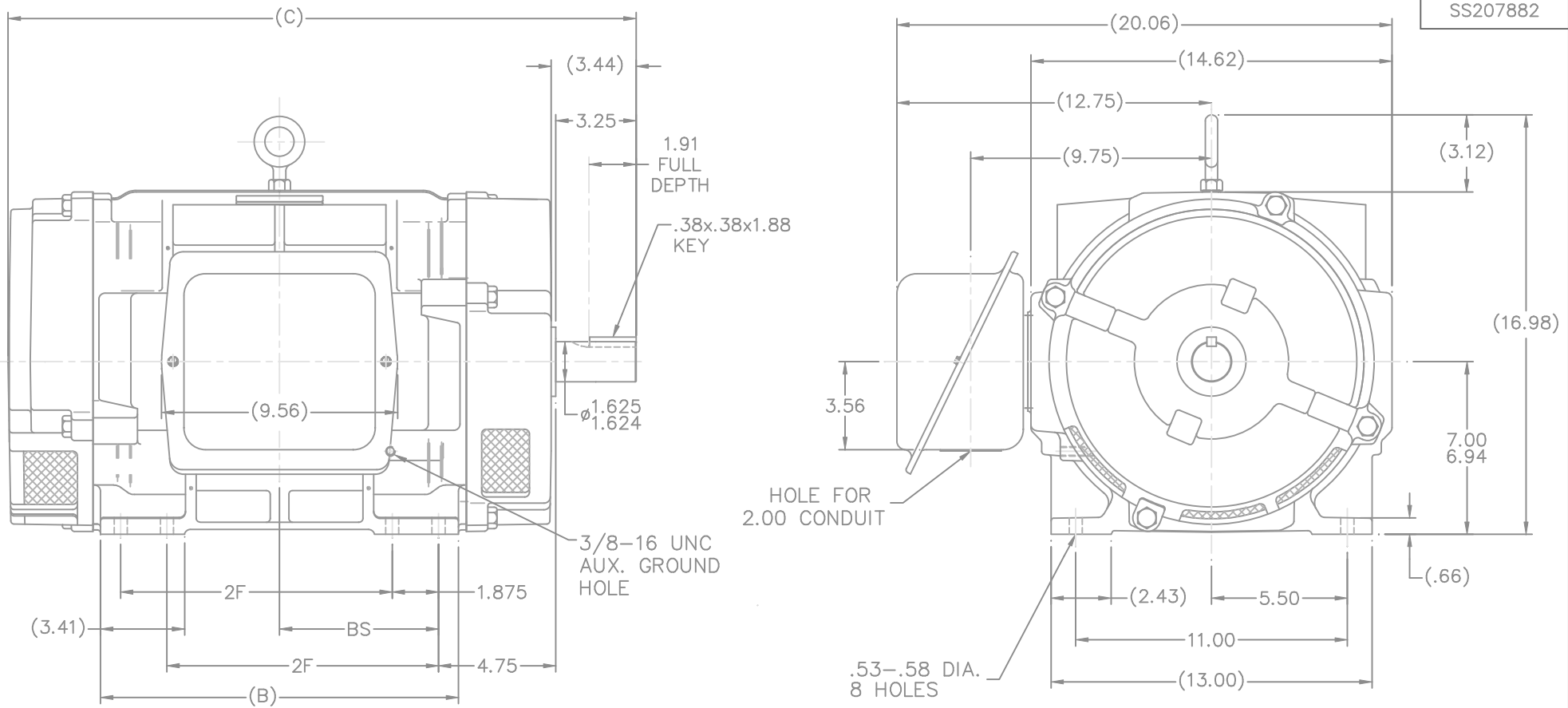
Nameplate Specifications

Output HP	25 Hp	Output KW	18.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	62.0/31.0 A	Speed	1775 rpm
Service Factor	1.15	Phase	3
Efficiency	93.6 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	G	Frame	284TS
Enclosure	Drip Proof	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6311
Opp Drive End Bearing Size	6210	UL	Recognized
CSA	Y	CE	Y
IP Code	12		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
Mounting	Rigid base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	TS
Overall Length	23.57 in	Frame Length	13.25 in
Shaft Diameter	1.625 in	Shaft Extension	3.44 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	B-SS207882-1325	Connection Diagram	A-EE7308

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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. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	BS
1325	284TS	12.63	23.57	9.50	5.50
1512	286TS	14.50	25.44	11.00	6.44

NO.		REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH	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	05-11-2004	CAD FILE	SS207882	SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST	LB			B	SS207882			

TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN	
DEC.	INCHES			TJB	05-04-2004
.X	±.1			CHK	ML 05-10-2004
.XX	±.03	TITLE		APPD	BW 05-11-2004
.XXX	±.005	OUTLINE		SCALE	1=4
.XXXX	±.0005	280 FR. - TS - DR.PR. - CAST IRON		REF	LI-03030025
		MAT'L		FMF	MU50708

EE7308

THREE PHASE
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD
CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN RM 11/20/1990				
					DEC.	INCHES						
5	CHG TO REGAL LOGO	SL 09/10/2015	AB					CHK ML 11/21/1990				
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN	.X	±.1			APPD SAS 04/24/2003				
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS	.XX	±.02			SCALE 1=1				
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XXX	±.005		TITLE CONNECTION DIAGRAM 3Ø - DUAL VOLTAGE MOTOR	REF				
1	REDRAWN	RM 11/20/1990		.XXXX	±.0005		MAT'L.	FMF				
					±7'30"			PREV				
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							DIST WP					



CERTIFICATION DATA SHEET

Model#: 284TSTDN16031 BA **WINDING#:** K2844163 NONE 3
CONN. DIAGRAM: A-EE7308 **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS207882-1325

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25&20	18.7&14.9	1800	1775&1475	284TS	DP	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	62/31&60/30	ACROSS THE LINE	CONTINUOU S	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93.6&93	3/4 LOAD EFF: 93.6	1/2 LOAD EFF: 93	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 81.5&81	3/4 LOAD PF: 76.5	1/2 LOAD PF: 66	92.4	SQ CAGE IND RUN	26 / 13

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
74 LB-FT	346 / 173	127 LB-FT 172	180 LB-FT 243	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	4.2 LB-FT^2	150 LB-FT^2	20 SEC.	2	415 LBS.

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

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6311	BALL 6210	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: NONE
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: 06/23/2017 07:43:11 AM
 FORM 3531 REV.3 02/07/99

** Subject to change without notice.

Data Sheet

Date: 29-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



284TSTDN16031

Submittal

Data @ 460 V

Motor Load Data

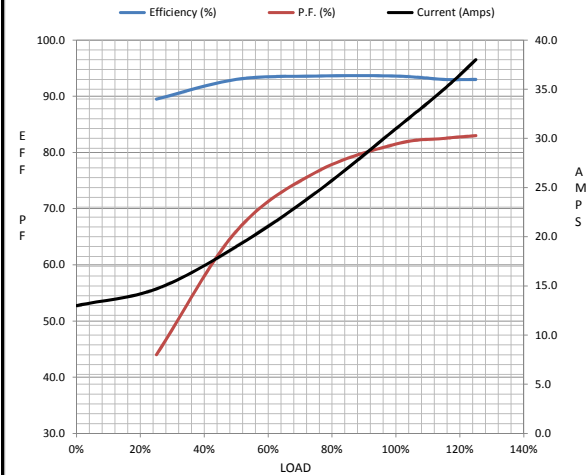
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.0	14.7	19.0	24.5	31.0	35.0	38.0	173
Torque (ft-lb)	0.00	18.5	37.0	55.5	74.0	85.5	93.0	127
RPM	1800	1795	1788	1780	1775	1,770	1767	0
Efficiency (%)		89.5	93.0	93.6	93.6	93.0	93.0	
P.F. (%)	3.5	44.0	66.0	76.5	81.5	82.5	83.0	32.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1680	1775	1800
Current (Amps)	173	156	107	31.0	13.0
Torque (ft-lb)	127	108	180	74.0	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	DP			
Construction	TDN			
Voltage	30/460#190/38V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	35 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.2 Lb-Ft ²			
Ref Wdg	K2844163 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS207882-1325			
Conn. Diag	A-EE7308			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1730	0.1310	0.8580	1.0940	20.3400



Speed -Torque Curve

