

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 284TTFNA16522

Catalog No: U2156A

General Purpose Pump Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM,
284 Frame, TEFC



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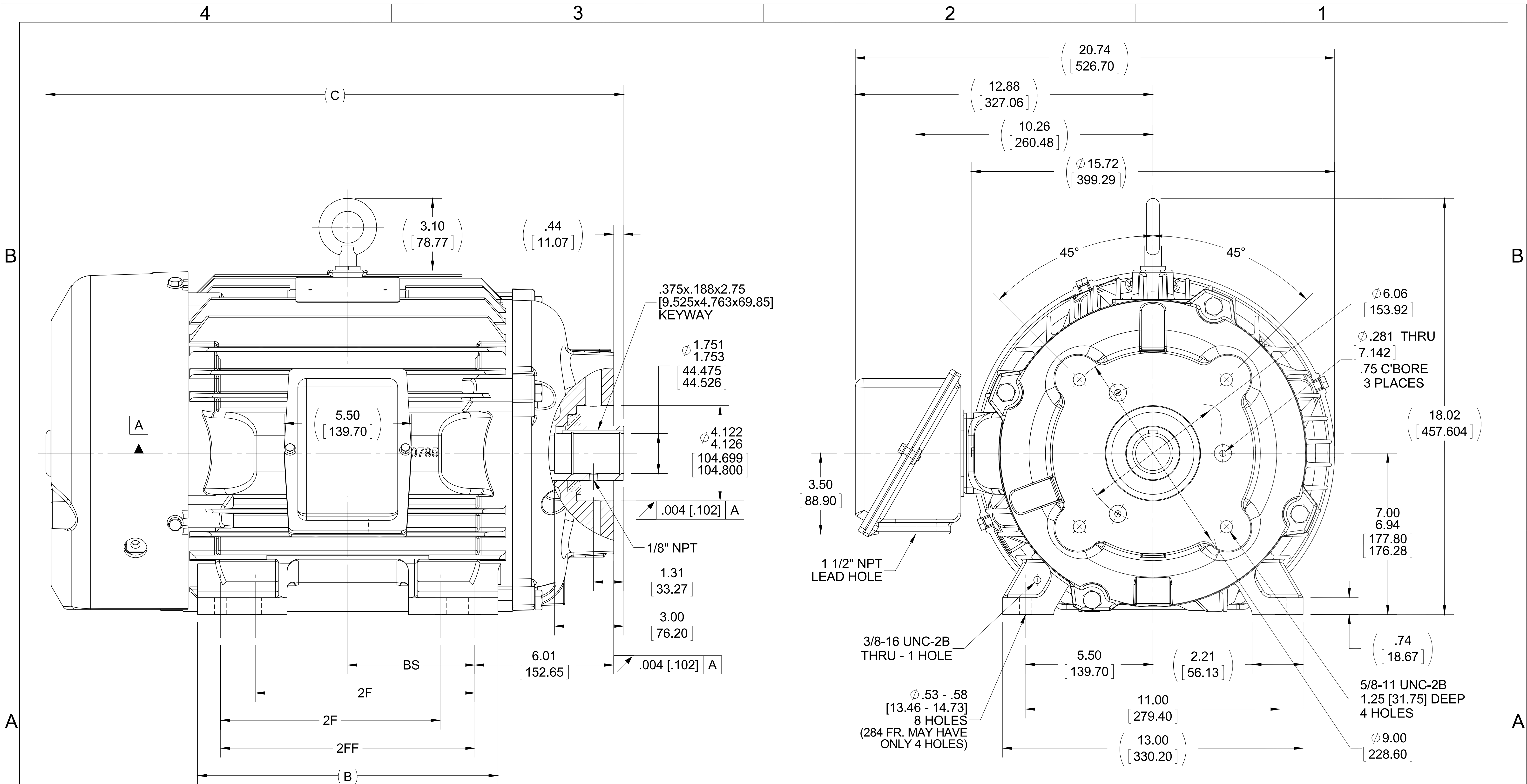
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	25 & 20 Hp
Output KW	18.7 & 14.9 kW	Voltage	230/460 & 190/380 V
Speed	3558 & 2960 rpm	Service Factor	1.15 & 1.15
Frame	284	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	57.5/28.8 & 56/28 A	Power Factor	87.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.0833 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	Hyd Pump Adaptor Shaft	Overall Length	23.50 in
Shaft Diameter	1.875 in	Shaft Extension	4.62 in
Assembly/Box Mounting	F1/F2 Capable		
Connection Drawing	A-EE7308	Outline Drawing	B-SS312742-1275



- 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 READ FROM CONDUIT BOX SIDE OF MOTOR.

1275	284TYZ	23.50 [596.93]	12.50 [317.50]	---	9.50 [241.30]	4.75 [120.59]
1425	284/286TYZ	25.00 [635.03]	13.00 [330.20]	9.50 [241.30]	11.00 [279.40]	5.50 [139.64]
DASH	FRAME	C	B	2F	2FF	BS
		4				

DRAWING REVISION A	REVISION BY	DATE
ECO ECO-0085820	APPROVED BY	DATE
ECO DESCRIPTION NEW DRAWING		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°
 CORNER FILLETS: R.02 [0.51]
 MACHINED SURFACES: 200 INCH mm 5.1
 mm SHOWN IN [BRACKETS]

DRAWN BY MSG
DATE 10-06-2015
APPROVED BY TB
DATE 10-06-2015
REFERENCE
THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
280TYZ FR. - TEFC - HYD PUMP PAD MOUNT

MATERIAL PROCESS/FINISH

SIZE **B** DRAWING NUMBER **SS312742** SHEET 1 OF 1

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		TITLE CONNECTION DIAGRAM	SCALE 1=1				
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XXX	±.005		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#: 284TTFNA16522 AA
CONN. DIAGRAM: A-EE7308
OUTLINE: B-SS312742-1275

WINDING#: K284282 NONE 1
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25&20	18.7&14.9	3600	3558&2960	284	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	57.5/28.8&56/ 28	LINE OR INVERTER	CONTINUOU S	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93&92.4	3/4 LOAD EFF: 93	1/2 LOAD EFF: 92.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 87.5&88	3/4 LOAD PF: 84	1/2 LOAD PF: 76	92.4	SQ CAGE INV RATED	20 / 10

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
37 LB-FT	364 / 182	50 LB-FT 135	103 LB-FT 278	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	2.3 LB-FT^2	32 LB-FT^2	20 SEC.	2	400 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
HYD PUMP SAE MOUNT PAD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	HYD PUMP ADAPTOR SHAFT	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312	6210						

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

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INVERTER TORQUE: CONSTANT 10:1 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

DATE: 06/27/2017 01:23:58 AM
 FORM 3531 REV.3 02/07/99

** Subject to change without notice.

Data Sheet

Date: 15-06-2017
Customer: _____
Attention: _____
Submitted by: FAREEDA DUDEKULA



284TTFNA16522

Submittal

Data @ **460 V**

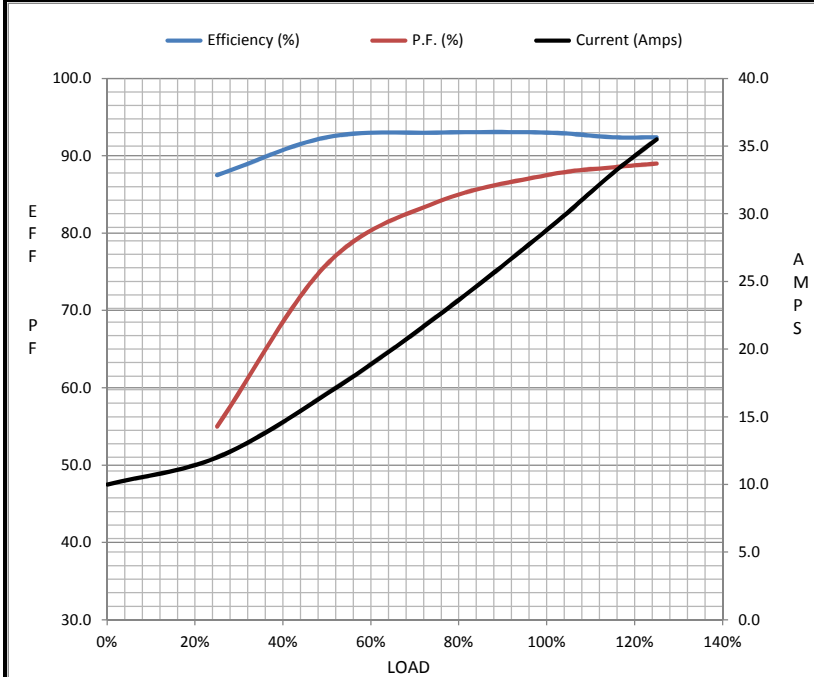
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	10.0	12.0	16.7	22.4	28.8	33.0	35.5	182
Torque (ft-lb)	0.00	9.0	18.5	27.5	37.0	42.0	46.5	50.0
RPM	3600	3590	3580	3570	3558	3,550	3545	0
Efficiency (%)		87.5	92.4	93.0	93.0	92.4	92.4	
P.F. (%)	6.0	55.0	76.0	84.0	87.5	88.5	89.0	31.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3350	3558	3600
Current (Amps)	182	167	118	28.8	10.0
Torque (ft-lb)	50.0	42.5	103	37.0	0.00

Information Block	
HP	25.0
Sync. RPM	3600
Frame	284
Enclosure	TEFC
Construction	TFN
Voltage	230/460#190/38(V)
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	65 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk ²	2.30 Lb-Ft ²
Ref Wdg	K284282 NONE
Sound Pressure @ 1M	72 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS312742-1275
Conn. Diag	A-EE7308
Additional Specifications:	
0	
365THFS8036	
EQUIV CKT (OHMS / PHASE)	
R1	R2
0.0600	0.0280
X1	X2
0.2450	0.1600
Xm	
6.9010	



Speed - Torque Curve

