

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 286THFNA19077

Catalog No: W556

20 HP Severe Duty Motor, 3 phase, 1200 RPM, 575 V, 286T Frame, TEFC
Severe Duty Motors



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RegalRexnord

Nameplate Specifications

Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	575 V
Current	21.5 A	Speed	1175 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Power Factor	76
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	286T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.385 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	27.71 in
Frame Length	14.25 in	Shaft Diameter	1.875 in
Shaft Extension	4.82 in	Assembly/Box Mounting	F1/F2 Capable
Outline Drawing	B-SS311057-1425	Connection Drawing	A-EE7300

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THREE PHASE - SINGLE VOLTAGE MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

TERMINAL BLOCK WHEN SPECIFIED



IF MOTOR HAS 6 LEADS



A-9806 DECAL

OPTIONAL CORD CONNECTION



VIEW OF TERMINAL END

DRAWING REVISION AB	REVISION BY JJB	DATE 06-27-2017
ECO ECO-0125361	APPROVED BY TB	DATE 06-27-2017
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
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DRAWN BY DA
DATE 03-26-1993
APPROVED BY TB
DATE 03-26-1993
REFERENCE
THIRD ANGLE PROJECTION



Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL PROCESS/FINISH

SIZE A	DRAWING NUMBER EE7300	SHEET 1 OF 1
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CERTIFICATION DATA SHEET

Model#: 286THFNA19077 DD
CONN. DIAGRAM: A-EE7300
OUTLINE: B-SS311057-1425

WINDING#: 286654 NONE 5
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20	14.9	1200	1175	286T	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	21.5	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 91.7	3/4 LOAD EFF: 91.7	1/2 LOAD EFF: 91.7	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 76	3/4 LOAD PF: 70.5	1/2 LOAD PF: 59.5	91	SQ CAGE INV RATED	10

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
89 LB-FT	116	157 LB-FT 176	238 LB-FT 267	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
56 dBA	66 dBA	4.8 LB-FT^2	350 LB-FT^2	20 SEC.	2	550 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6311	6210	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			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

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

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DATE: 06/27/2017 01:39:11 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/29/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



286THFNA19077

Submittal

Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	10.0	11.2	13.6	17.2	21.4	24.8	26.0	116	
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	103	112	157	
RPM	1200	1195	1190	1180	1175	1,170	1167	0	
Efficiency (%)		87.5	91.7	91.7	91.7	91.0	91.0		
P.F. (%)	20.5	38.5	59.5	70.5	76.0	78.0	79.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																																	
Speed (RPM)	0	600	1070	1175	1200																																	
Current (Amps)	116	108	74.8	21.4	10.0																																	
Torque (ft-lb)	157	152	238	89.0	0.00																																	
<div><div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</div></div><table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>87</td><td>3.8</td><td>10.5</td></tr><tr><td>40</td><td>90</td><td>10.0</td><td>11.5</td></tr><tr><td>60</td><td>92</td><td>15.0</td><td>14.0</td></tr><tr><td>80</td><td>91</td><td>18.0</td><td>18.0</td></tr><tr><td>100</td><td>91</td><td>19.5</td><td>22.0</td></tr><tr><td>125</td><td>90</td><td>20.0</td><td>25.5</td></tr></tbody></table></div>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	87	3.8	10.5	40	90	10.0	11.5	60	92	15.0	14.0	80	91	18.0	18.0	100	91	19.5	22.0	125	90	20.0	25.5					
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						HP		20.0																														
						Sync. RPM		1200																														
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						Voltage		575 V																														
						Frequency		60 Hz																														
						Design		B																														
						LR Code letter		G																														
						Service Factor		1.15																														
						Temp Rise @ FL		60 °C																														
						Duty		CONT																														
						Ambient		40 °C																														
						Elevation		1,000 feet																														
Rotor/Shaft wk²		4.8 Lb-Ft²																																				
Ref Wdg		286654 NONE																																				
Sound Pressure @ 1M		56 dBA																																				
VFD Rating		CONSTANT 10:1																																				
Outline Dwg		B-SS311057-1425																																				
Conn. Diag		A-EE7300																																				
Additional Specifications:																																						
0																																						
0																																						
EQUIV CKT (OHMS / PHASE)																																						
R1	R2	X1	X2	Xm																																		
0.3660	0.3860	1.9560	1.9890	30.0210																																		

Speed -Torque Curve

