

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 449TSTDN16041

Catalog No: U499

XRI® General Purpose General Purpose Motor, 500 & 400 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V,
1800 & 1500 RPM, 449TS Frame, DP



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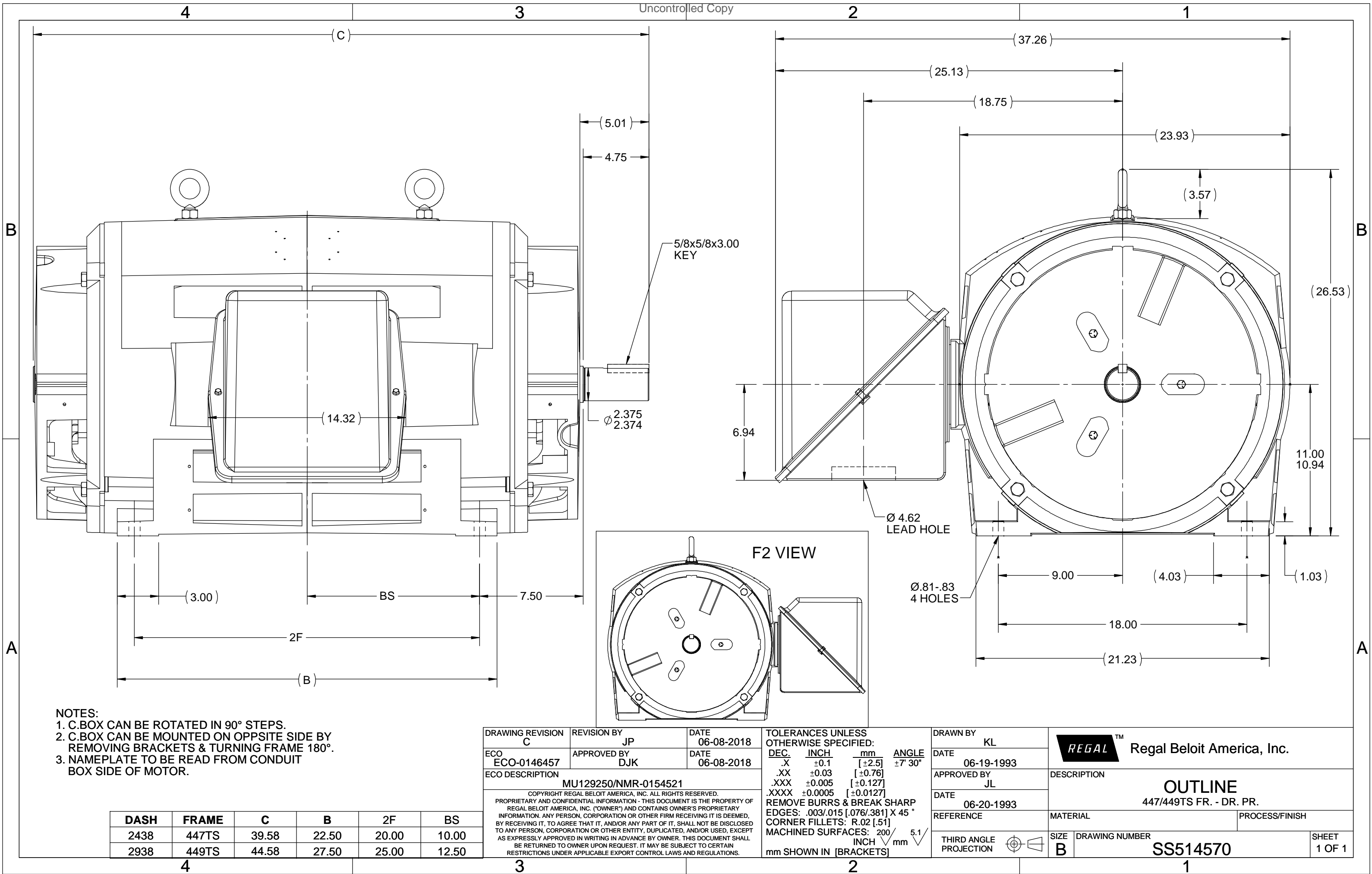
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	500 & 400 Hp
Output KW	370.0 & 300.0 kW	Voltage	460 & 380 V
Speed	1780 & 1478 rpm	Service Factor	1.0 & 1.0
Frame	449TS	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	96.2 & 95.4 %
Ambient Temperature	50 °C	Frequency	60 & 50 Hz
Current	570 & 550 A	Power Factor	86
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	E
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6314
UL	No	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start & Wye Start Delta Run
Poles	4	Rotation	Reversible
Resistance Main	.008 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	44.50 in
Frame Length	29.38 in	Shaft Diameter	2.375 in
Shaft Extension	5 in	Assembly/Box Mounting	F1/F2 Capable
Connection Drawing	A-EE7300BH	Outline Drawing	B-SS514570-2938





				TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION	DRAWN RJW 02-11-2005							
				DEC.	INCHES		CHK	ML 02-11-2005						
				.X	±.1		APPD	GK 02-11-2005						
				.XX	±.02		TITLE CONNECTION DIAGRAM 12 LEAD- SINGLE VOLTAGE				SCALE			
D	CHANGED TO REGAL TITLE BLOCK	ECO-0108299	WGJ 08/22/2016	EMH	.XXX	±.005					REF			
1	ADDED IEC TERMINAL MARKINGS	CN 41429	JJB 05/24/2007	ML	.XXXX	±.0005	MAT'L.	FMF						
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		02-11-2005	CAD FILE		ee7300bh	SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST		LB			A	EE7300BH				C

CERTIFICATION DATA SHEET

Model#: 449TSTDN16041 AA
 CONN. DIAGRAM: A-EE7300BH
 OUTLINE: B-SS514570-2938

WINDING#: T4494165 NONE 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
500&400	370&300	1800	1780&1478	449TS	DP	E	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	570&550	PWS & YDRUN	CONTINUOUS	F1	1.0/1.0	50	3300

FULL LOAD EFF: 96.2&95.4	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86&86	3/4 LOAD PF: 85	1/2 LOAD PF: 78	95.4	SQ CAGE IND RUN	160

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1475 LB-FT	3175	2675 LB-FT 180	3300 LB-FT 222	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	92 LB-FT^2	1900 LB-FT^2	15 SEC.	1	2850 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	RED (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6314	6314	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

* N O T E S *	INVERTER TORQUE: NONE					
	INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE NONE PPR					
	BRAKE: NONE NONE					
	NONE P/N NONE					
	NONE NONE					
	NONE FT-LB NONE V NONE Hz					

DATE: 06/21/2017 06:48:35 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/20/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



449TSTDN16041

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	160	206	310	435	570	660	725	3,175	
Torque (ft-lb)	0.00	366	733	1,103	1,475	1,699	1,850	2,675	
RPM	1800	1795	1790	1785	1780	1,778	1775	0	
Efficiency (%)		95.4	95.8	96.2	96.2	95.8	95.4		
P.F. (%)	2.5	59.0	78.0	85.0	86.0	86.0	85.5	32.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																													
Speed (RPM)	0	900	1710	1780	1800																													
Current (Amps)	3,175	2,800	1,800	570	160																													
Torque (ft-lb)	2,675	2,000	3,300	1,475	0.00																													
<div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</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>95.0</td><td>58.0</td><td>440</td></tr><tr><td>50</td><td>95.5</td><td>78.0</td><td>550</td></tr><tr><td>75</td><td>96.0</td><td>85.0</td><td>660</td></tr><tr><td>100</td><td>96.5</td><td>86.0</td><td>740</td></tr><tr><td>125</td><td>96.0</td><td>85.0</td><td>740</td></tr></tbody></table></div>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	95.0	58.0	440	50	95.5	78.0	550	75	96.0	85.0	660	100	96.5	86.0	740	125	96.0	85.0	740					
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						HP		500.0																										
						Sync. RPM		1800																										
						Frame		449																										
						Enclosure		DP																										
						Construction		TDN																										
						Voltage		460#380 V																										
						Frequency		60 Hz																										
						Design		B																										
						LR Code letter		F																										
						Service Factor		1.15																										
Temp Rise @ FL		75 ° C																																
Duty		CONT																																
Ambient		40 ° C																																
Elevation		1,000 feet																																
Rotor/Shaft wk²		92.0 Lb-Ft²																																
Ref Wdg		T4494165 NONE																																
Sound Pressure @ 1M		82 dBA																																
VFD Rating		NONE																																
Outline Dwg		B-SS514570-2938																																
Conn. Diag		A-EE7300BH																																
Additional Specifications:																																		
0																																		
0																																		
EQUIV CKT (OHMS / PHASE)																																		
R1		R2		X1		X2		Xm																										
0.0070		0.0050		0.0520		0.0860		1.7010																										

Speed -Torque Curve

