

PRODUCT INFORMATION PACKET



Model No: 171784.60
Catalog No: 171784.60
Severe Duty Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 3600 & 3000 RPM,
324TS Frame, TEFC



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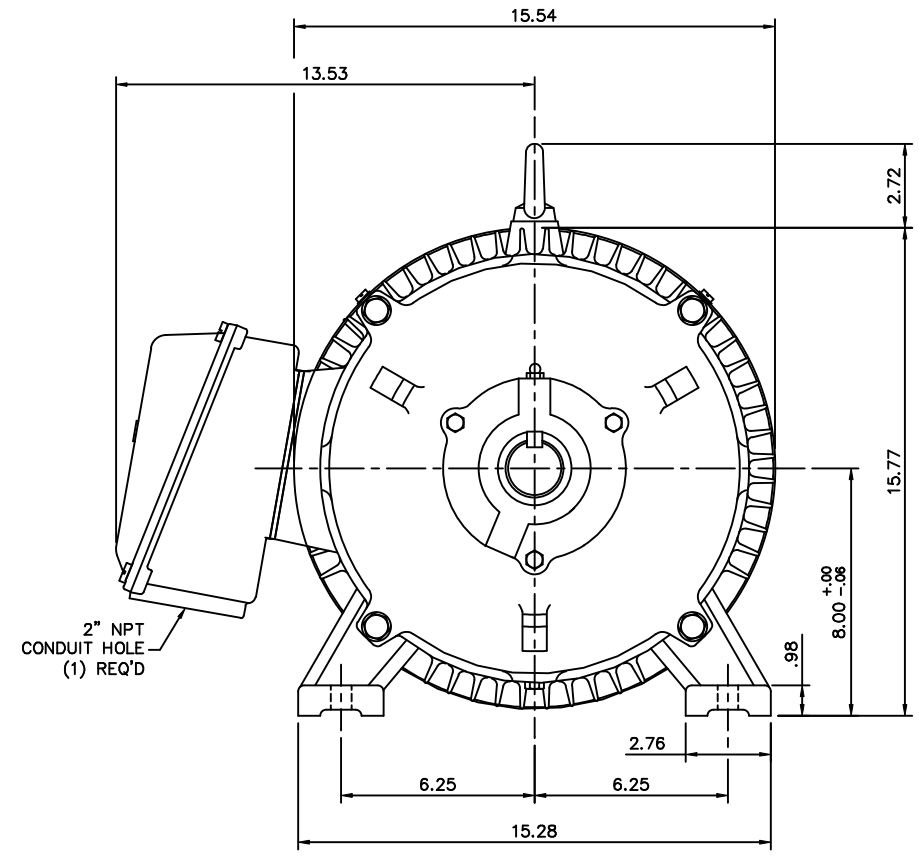
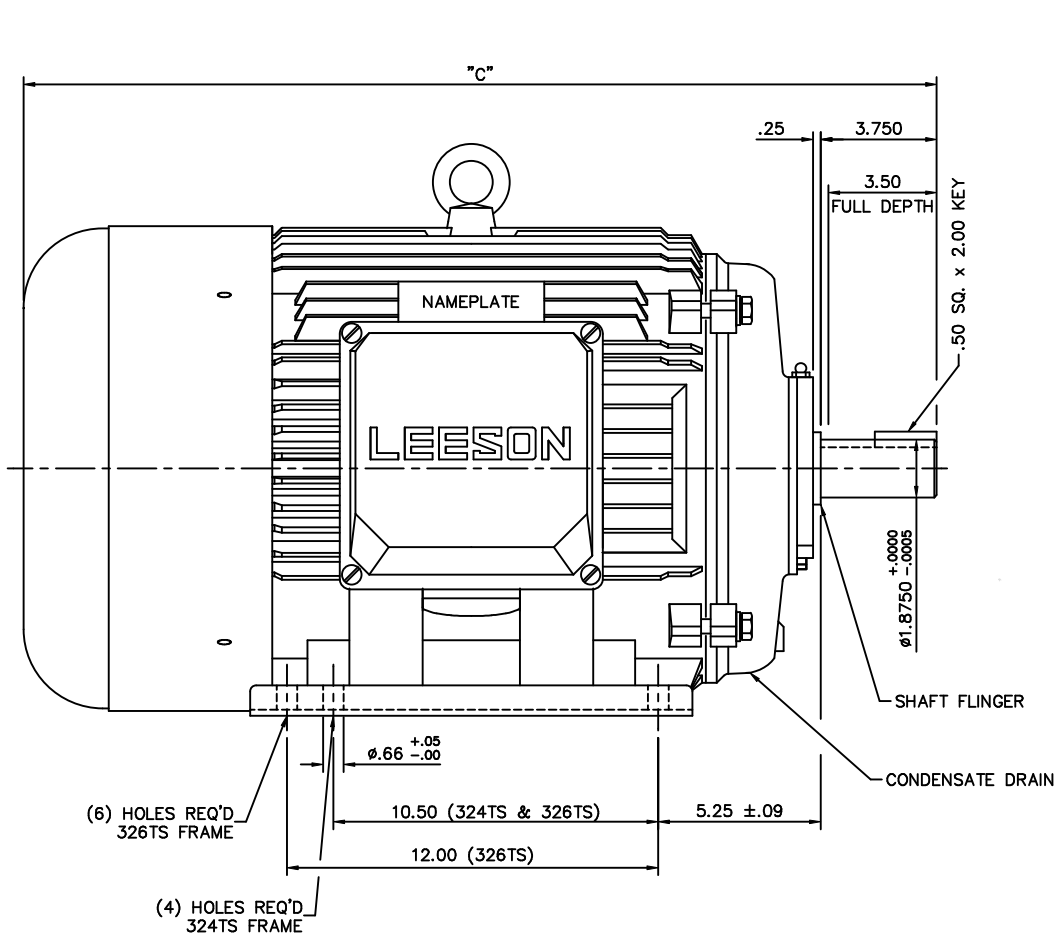
Nameplate Specifications

Phase	3	Output HP	40 & 30 Hp
Output KW	30.0 & 22.4 kW	Voltage	208-230/460 & 190/380 V
Speed	3555 & 2960 rpm	Service Factor	1.15 & 1.15
Frame	324TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	92.4 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	99-90/45 & 81/40.5 A	Power Factor	88.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6312
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	2	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	28.03 in	Shaft Diameter	1.875 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	16954260-324TS	Connection Drawing	00417203

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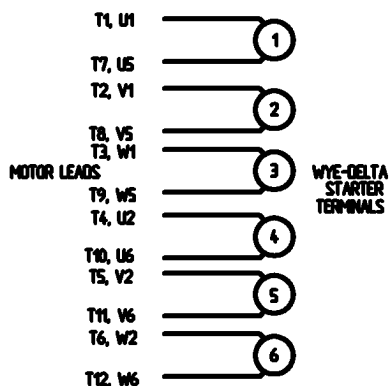


FRAME DESIGN	"C"
324TS	28.03
326TS	29.53

				TOLERANCES UNLESS OTHERWISE SPECIFIED		LEESON ELECTRIC CORPORATION				
				DECIMALS		DRAWN JJK 03/29/99		TITLE OUTLINE - 320TS FRAME		
				.00 ± .06		CH'K'D.		TEFC - RIGID		
				.000 ± .005		APPR. PG 03/31/99		MAT'L CAST IRON		
01	ADDED HOLES FOR 326TS BASE	JJK	07/15/99	.0000 ± .0005		SCALE 1=4				
NO.	REVISION	BY	DATE	FRACTIONS ± 1/64		REF. 169504		FINISH		
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				ANGLES ± 1/2'		FINISH		SIZE B		DRAWING NO. 169542-60
				INCH/MM		FMF				

WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

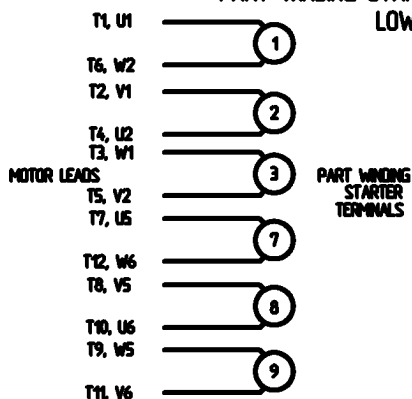


HIGH VOLTAGE CONNECTION



REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

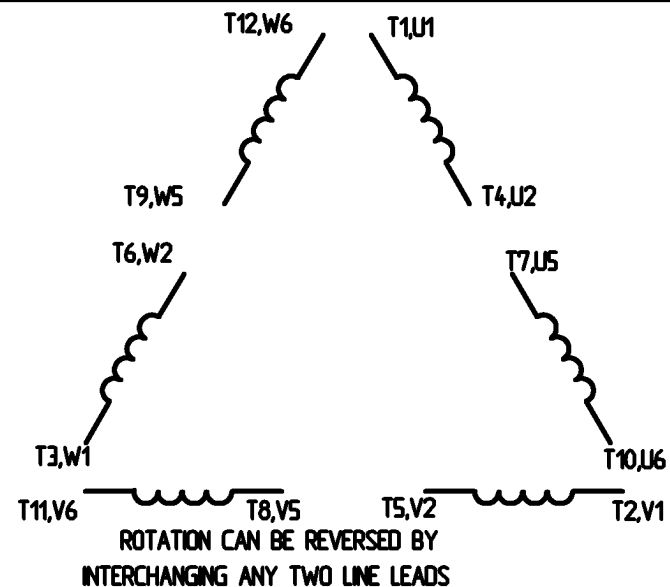
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

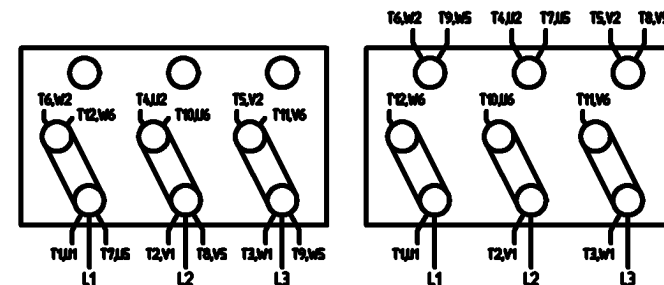
LINE LEADS



12 LEAD DELTA CONNECTION ACROSS THE LINE START
(FOR Y START DELTA RUN, REMOVE THE JUMPERS)

LOW VOLTAGE
MUST BE REWIRED
AS SHOWN

HIGH VOLTAGE
FACTORY WIRED FOR HIGH
VOLTAGE AS SHOWN



				TOLERANCES UNLESS SPECIFIED		ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN CW 08/28/02 CHK APPD SCALE 1:1 REF FMF PREV
				DEC.	INCHES		TITLE DELTA - WYE CONNECTION DIAGRAM IEC CAST IRON MOTORS
				X	+ .1		
				XX	+ .01		
				XXX	+ .005		
				XXXX	+ .0005	MAT'L	
NO.	REVISION	BY & DATE	CHK	ANG	+ 1/2°	FINISH	PREV
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				DST			DRAWING NO. 004172-03
							REV.

ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

/CB
-dictionary-
/Pscript_WinNT_Compat
-dictionary-



**1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-377-8810**

CATALOG #: 171784.60

CONN. DIAGRAM: 00417203

OUTLINE: 16954260-324TS

MOUNTING: F1/F2 CAPABLE

WINDING #: T16102016 3

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40&30	30.0&22.4	3600	3555&2960	324TS	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	208-230/460&190/380	99-90/45&81/40.5	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	92.4&93	3/4 LOAD EFF:	93.6	1/2 LOAD EFF:	92.4	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	88.5&90.2	3/4 LOAD PF:	86.4	1/2 LOAD PF:	81.7	91.7		SQ CAGE INV RATED	

F.L. TORQUE	LOCKED ROTOR AMPS	L,R. TORQUE	B,D. TORQUE	F.L. RISE°C
59.1 LB-FT	624 / 312	124 LB-FT 210 %	147 LB-FT 250 %	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
55 dBA	65 dBA	3.24 LB-FT^2	3.2 LB-FT^2	20 SEC.	2	- 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	FALSE	NONE	GREEN (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	AISI 1045 (C-240)	CAST IRON
6312	6312						

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

*
N
O
T
E

INVERTER TORQUE: VARIABLE 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

Data Sheet

Date: 1/22/2018

171784.60



Data @ 460 V

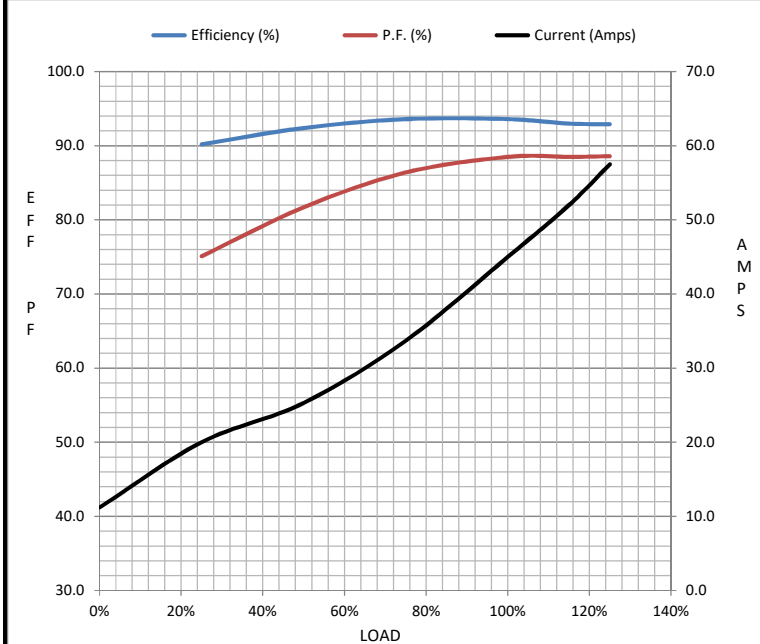
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	11.2	20.0	25.3	33.7	45.0	52.0	57.5	312
Torque (ft-lb)	0.00	21.2	30.0	45.0	59.1	68.0	75.0	124
RPM	3600	3585	3580	3570	3555	3,550	3540	0
Efficiency (%)		90.2	92.4	93.6	93.6	93.0	92.9	
P.F. (%)	9.5	75.1	81.7	86.4	88.5	88.5	88.6	0.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	3400	3555	3600
Current (Amps)	312	300	200	45.0	11.2
Torque (ft-lb)	124	101	147	59.1	0.00

Information Block				
HP	40.0			
Sync. RPM	3600			
Frame	324			
Enclosure	TEFC			
Construction	TFC			
Voltage	208-230/460#190/380 V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	3.2 Lb-Ft ²			
Ref Wdg	T16102016 NONE			
Sound Pressure @ 1M	55 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	16954260			
Conn. Diag	00417203			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



Speed - Torque Curve

