PRODUCT INFORMATION PACKET

Model No: 170019.60
Catalog No: 170019.60
WATTSAVER® General Purpose Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM, 324T Frame, TEFC

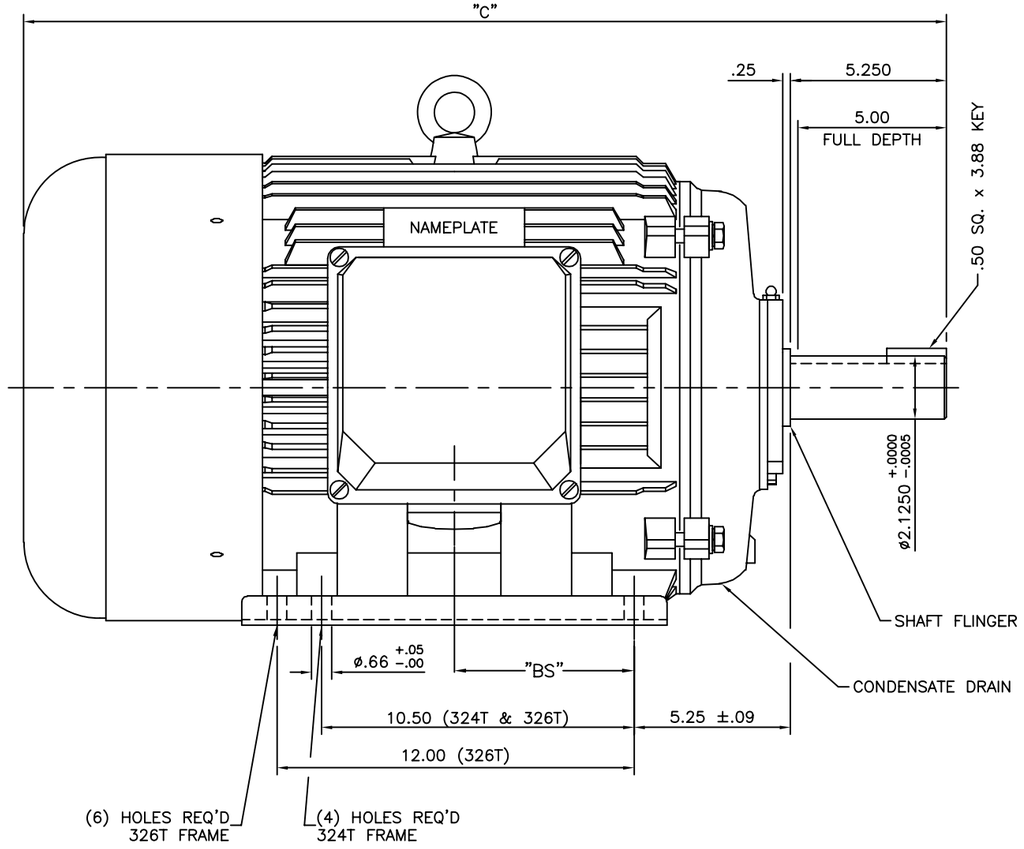
Nameplate Specifications

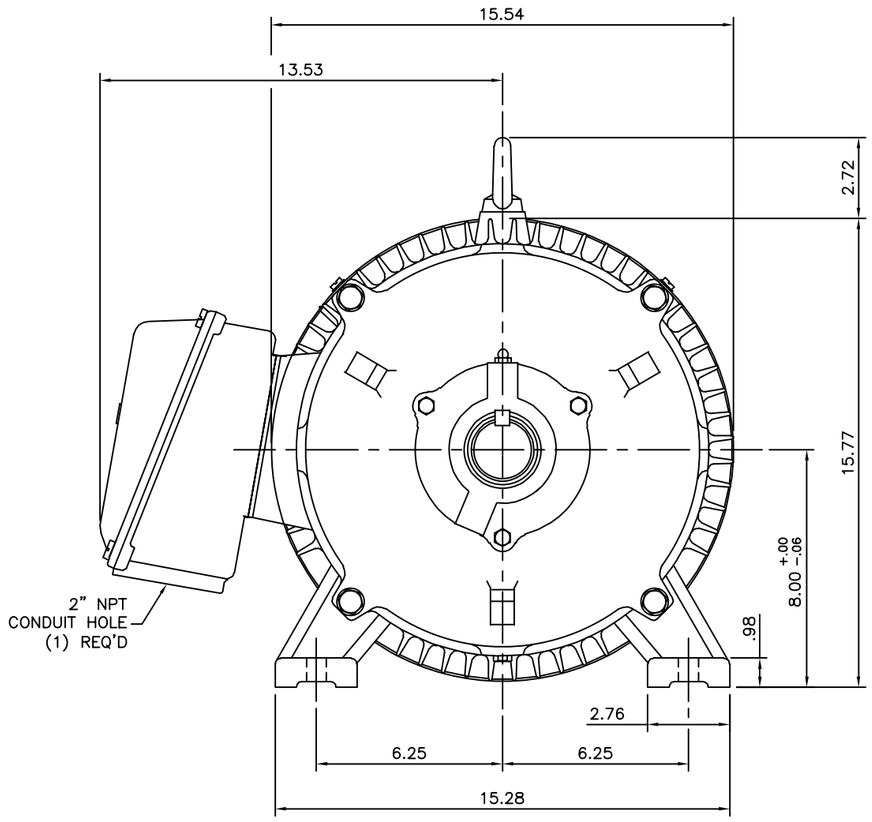
Phase	3	Output HP	40 & 30 Hp
Output KW	30.0 & 22.4 kW	Voltage	208-230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	324T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	94.1 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	100-92/46 & 84/42 A	Power Factor	86
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	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.042 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	29.53 in
Shaft Diameter	2.125 in	Shaft Extension	5.25 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 10:1
Outline Drawing	16954160LE	Connection Drawing	004172.01

169541-60LE





FRAME DESIGN	"C"	"BS"
324T	29.53	5.30
326T	31.02	6.00

NO.	REVISION	BY & DATE	CHK
1	ADDED "BS" DIM. AND UPDATED TITLE BLOCK ECO-00	RFH 04/07/2014	EH

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±1/2'

REGAL - BELOIT CORPORATION

TITLE OUTLINE – 320T FRAME
TEFC – RIDIG

MAT'L. CAST IRON

FINISH

CAD FILE 16954160LE

RFP

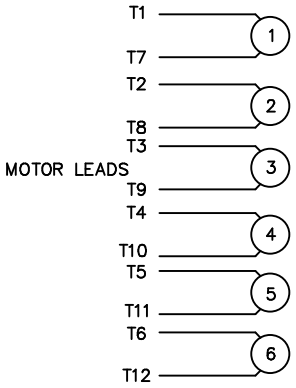
DIST

DRAWN	JJK 03/29/99
CHK	
APPD	PG 03/31/99
SCALE	N/A
REF	169504
FMF	
PREV	

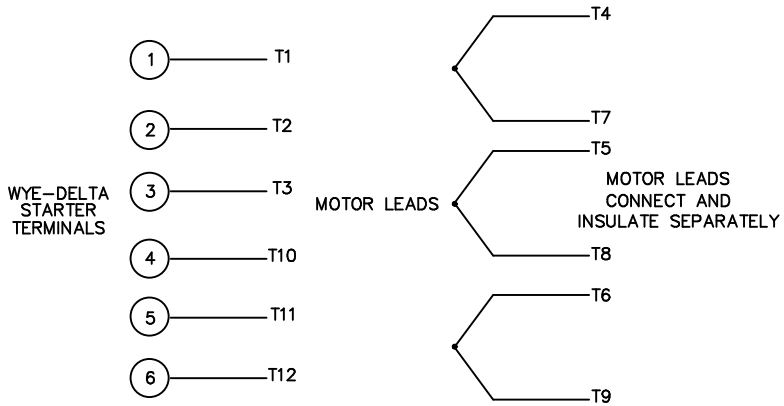
SIZE	DRAWING NO.	PAGE	REV.
A	169541-60LE	1 OF 1	1

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

LOW VOLTAGE CONNECTION

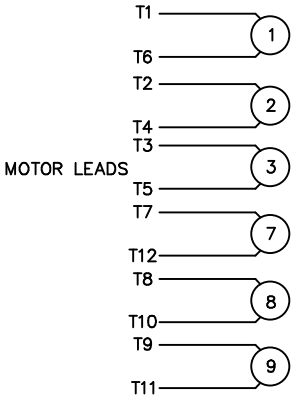


HIGH VOLTAGE CONNECTION



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

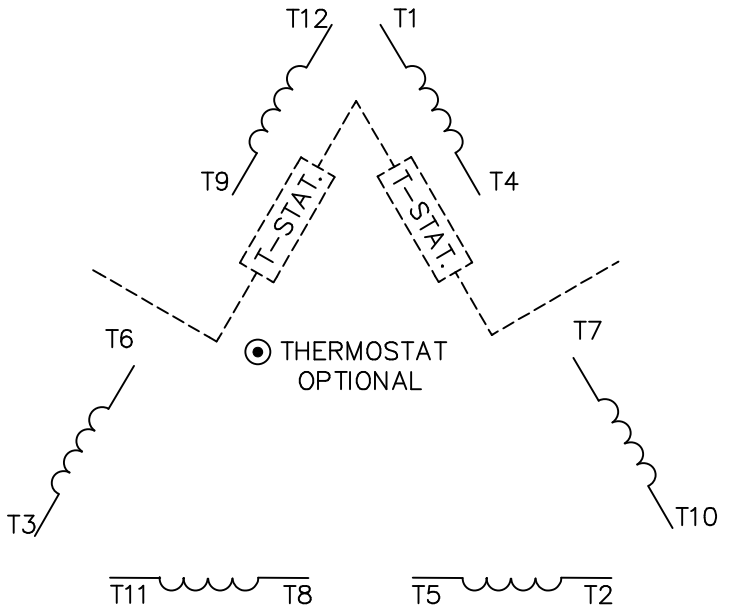
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



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



ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS

⦿ RED LEADS OR P1, P2, FOR N/C THERMOSTAT

ACROSS THE LINE START & RUN

	LINE 1	LINE 2	LINE 3	JOIN & INSULATE SEPARATELY
HIGH VOLT	T1,T12	T2,T10	T3,T11	(T4,T7) (T5,T8) (T6,T9)
LOW VOLT	T1,T6 T7,T12	T2,T4 T8,T10	T3,T5 T9,T11	

NO.	REVISION	BY & DATE	CHK
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	
02	ADDED T–STAT. NOTES PER ELECTRICAL	KMM 06/02/98	
01	REDRAWN TO CAD	DBT 06/02/97	

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.01
.XXX	±.005
.XXXX	±.0005
ANG	±1/2°

LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES

TITLE DELTA – WYE CONNECTION DIAGRAM

MAT'L.

FINISH

CAD FILE 00417201

RFP

DIST

DRAWN	WLW 09/08/77
CHK	RPB 09/12/77
APPD	JCW 09/12/77
SCALE	1=1
REF	
FMF	
PREV	

SIZE A | DRAWING NO. 004172–01 | REV. 03

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Data Sheet

Date: 1/31/2018

LEESON

170019.60

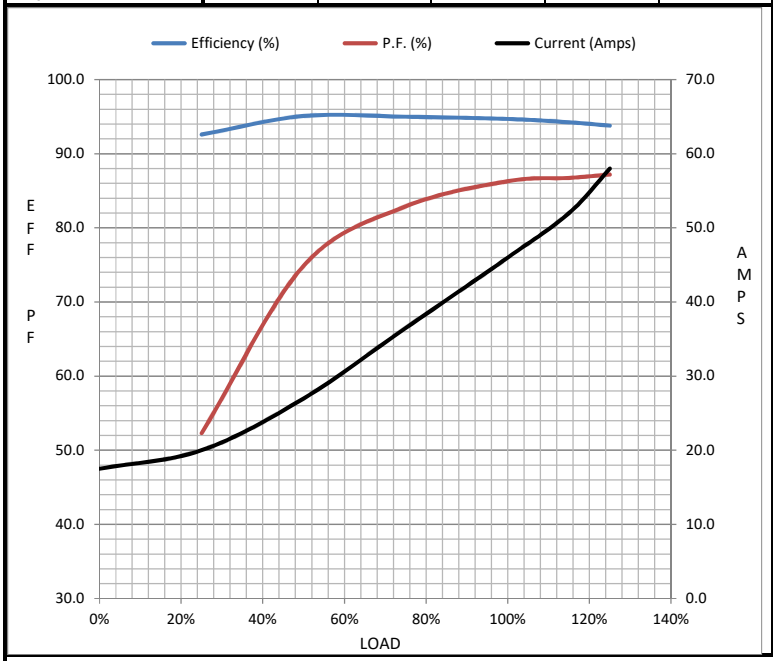
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	17.5	20.0	27.0	36.5	46.0	52.0	58.0	290	
Torque (ft-lb)	0.00	30.3	60.3	90.3	119	134	150	224	
RPM	1800	1795	1790	1784	1778	1,776	1772	0	
Efficiency (%)		92.6	95.1	95.0	94.7	94.3	93.8		
P.F. (%)	4.8	52.3	74.9	82.9	86.3	86.8	87.2	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1656	1778	1800
Current (Amps)	290	267	174	46.0	17.5
Torque (ft-lb)	224	195	348	119	0.00



Information Block

HP	40.0	
Sync. RPM	1800	
Frame	324	
Enclosure	TEFC	
Construction	TFC	
Voltage	208-230/460#190/380	V
Frequency	60	Hz
Design	A	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	58	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	6.3	Lb-Ft²
Ref Wdg	T16104005 FR	
Sound Pressure @ 1M	999	dBA
VFD Rating	CONSTANT 10:1	
Outline Dwg	16954160LE	
Conn. Diag	004172.01	
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