PRODUCT INFORMATION PACKET

Model No: 171780.60
Catalog No: 171780.60
Severe Duty Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1200 & 1000 RPM, 324T Frame, TEFC

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Nameplate Specifications

Phase	3	Output HP	25 & 20 Hp
Output KW	18.7 & 14.9 kW	Voltage	208-230/460 & 190/380 V
Speed	1190 & 990 rpm	Service Factor	1.15 & 1.15
Frame	324T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93.6 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	72-66/33 & 62/31 A	Power Factor	76
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	6	Rotation	Reversible
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	VARIABLE 10:1		
Outline Drawing	16954160	Connection Drawing	00417203

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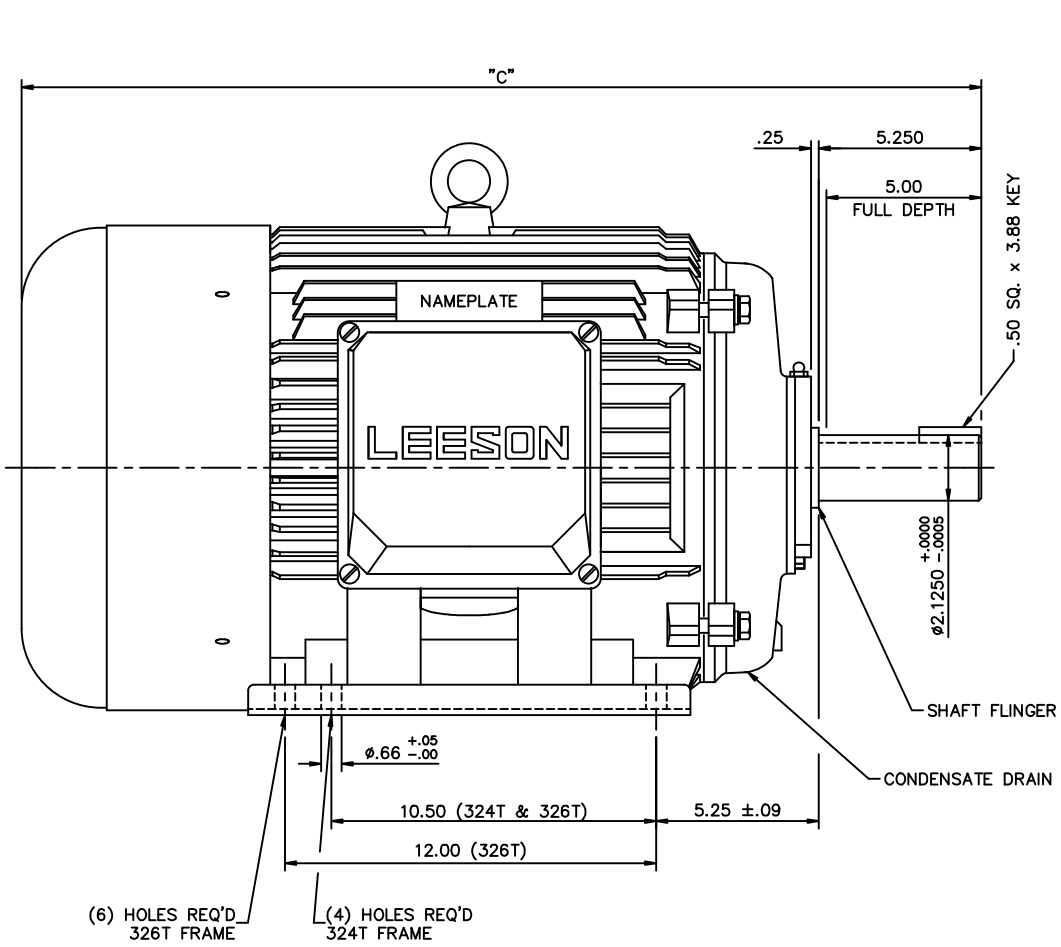

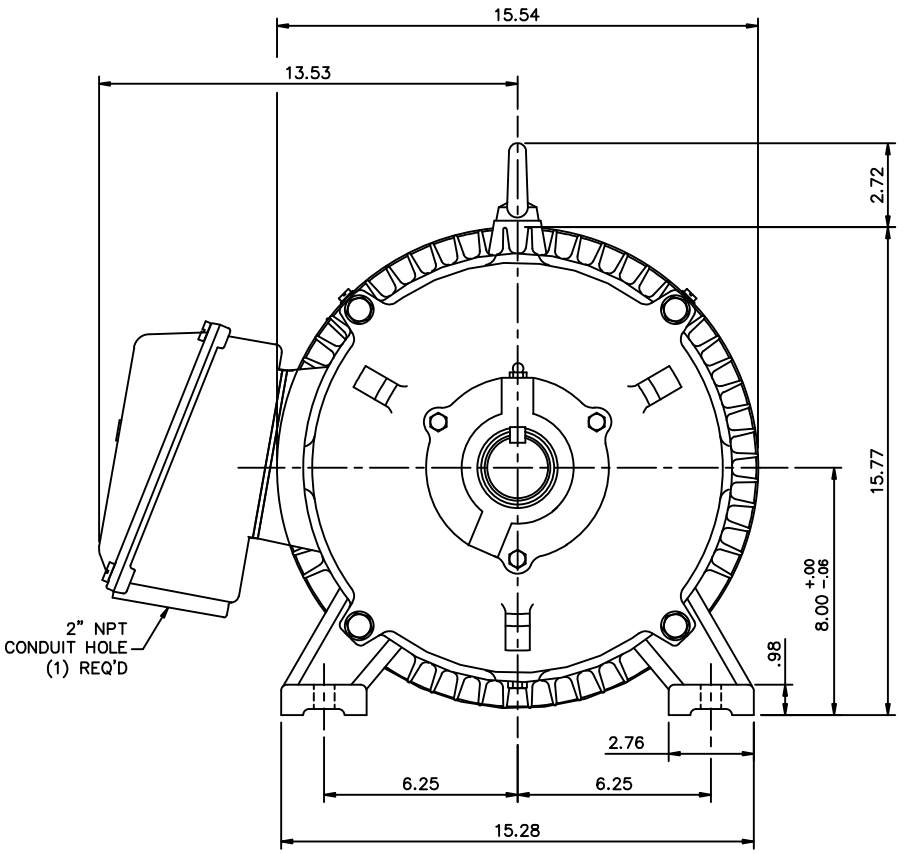

FRAME DESIGN	"C"
324T	29.53
326T	31.02

NO.	REVISION	BY	DATE
01	ADDED HOLES FOR 326T BASE	JJK	07/13/99

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TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMALS

.00	± .06	
.000	± .005	
.0000	± .0005	
FRACTIONS	± 1/64	
ANGLES	± 1/2°	
INCH/MM		

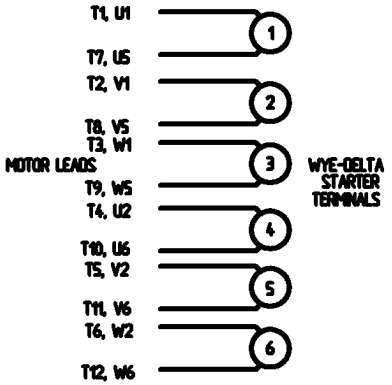
LEESON ELECTRIC CORPORATION

DRAWN JJK 03/29/99
CH'K'D.
APPR. PG 03/31/99
SCALE 1=4
REF. 169504
FMF

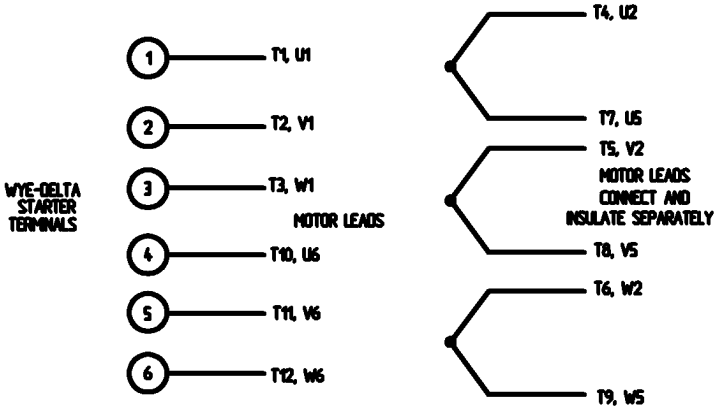
TITLE: OUTLINE – 320T FRAME TEFC – RIGID
MAT'L.: CAST IRON
FINISH:
SIZE: B
DRAWING NO.: 169541-60

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

LOW VOLTAGE CONNECTION

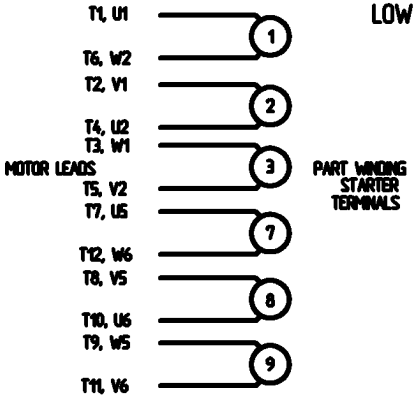


HIGH VOLTAGE CONNECTION



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

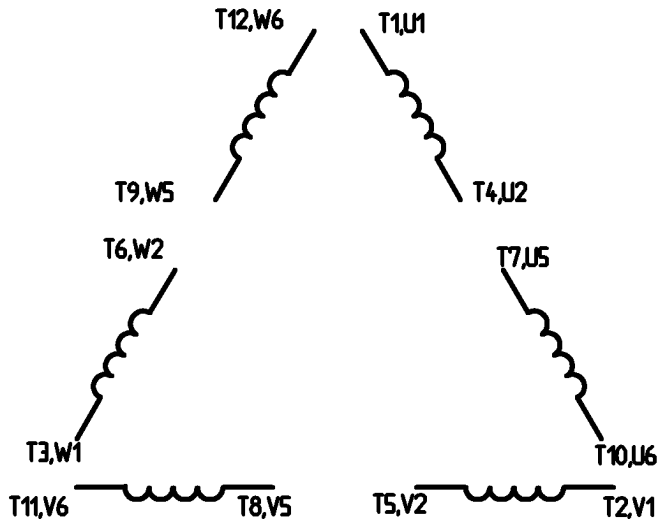
PART WINDING START USABLE ON 4 & 6 POLE MOTORS LOW VOLTAGE CONNECTION ONLY



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

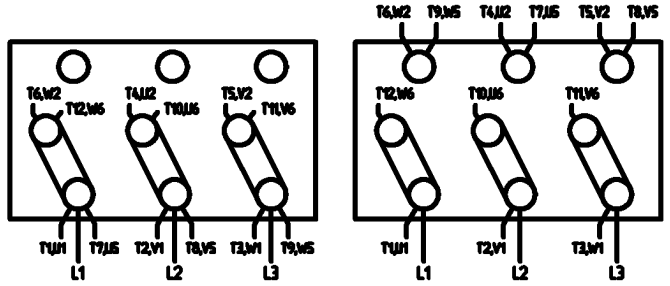


ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS

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)



NO.	REVISION	BY & DATE	CHK

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 IEC CAST IRON MOTORS

MAT'L.

FINISH

RFP

DIST

CAD FILE: 00417203

DRAWN	CJW 08/28/02
CHK	
APPD	
SCALE	1=1
REF	
FMF	
PREV	

SIZE: A

DRAWING NO.: 004172-03

REV.

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```
ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

/CB
-dictionary-
/Pscript_WinNT_Compat
-dictionary-
```

Uncontrolled Copy

Data Sheet

Date: 1/31/2018

171780.60

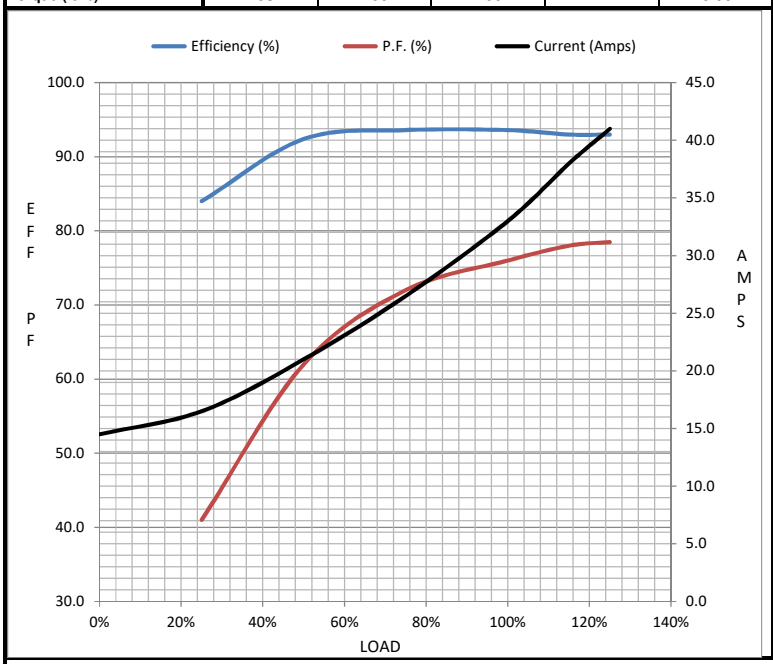
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	14.5	16.5	21.0	26.5	33.0	38.0	41.0	182	
Torque (ft-lb)	0.00	27.0	56.0	84.0	111	128	141	193	
RPM	1200	1198	1195	1192	1190	1,188	1185	0	
Efficiency (%)		84.0	92.4	93.6	93.6	93.0	93.0		
P.F. (%)	5.8	41.0	62.0	72.0	76.0	78.0	78.5	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1100	1190	1200
Current (Amps)	182	175	135	33.0	14.5
Torque (ft-lb)	193	180	260	111	0.00

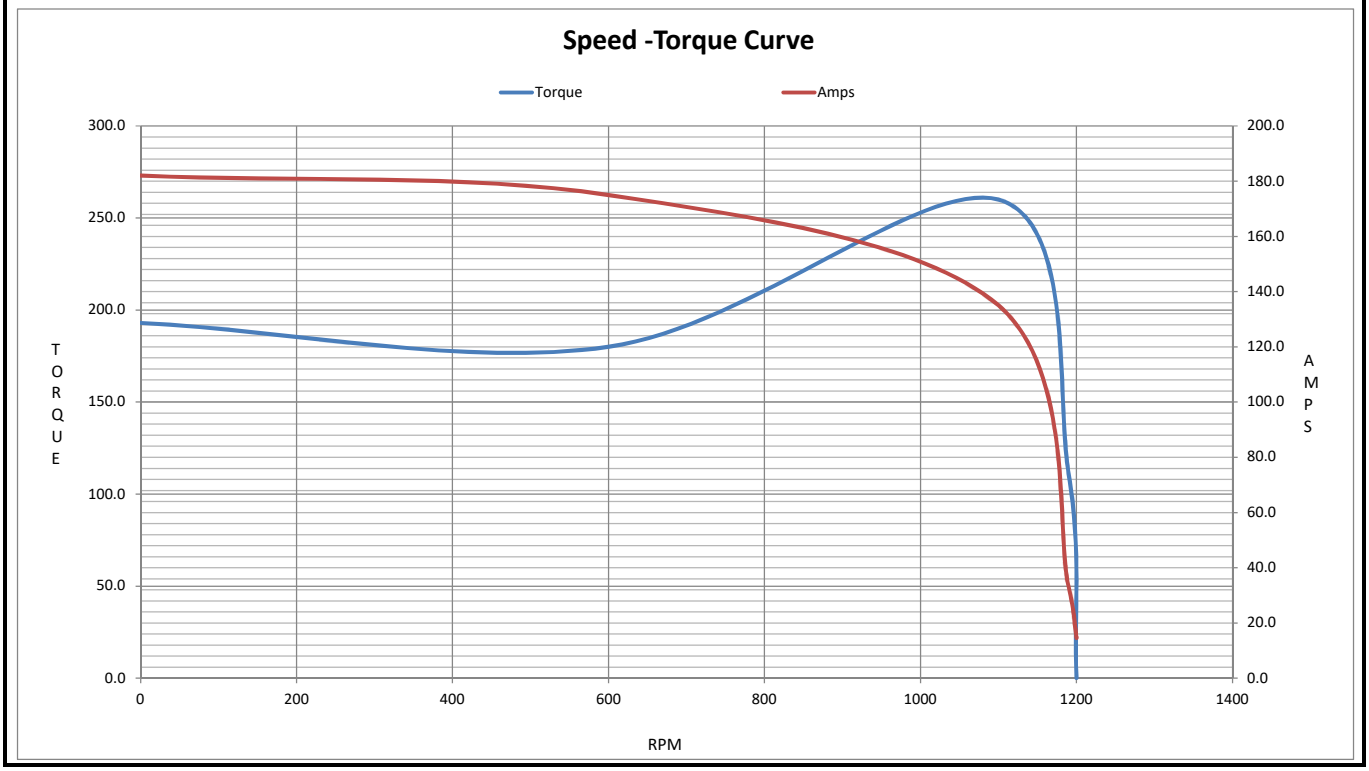


Information Block

HP	25.0	
Sync. RPM	1200	
Frame	200	
Enclosure	TEFC	
Construction	TFC	
Voltage	208-230/460#190/380	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	48	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	0.00	Lb-Ft²
Ref Wdg	T16106011 FR	
Sound Pressure @ 1M	70	dBA
VFD Rating	VARIABLE 10:1	
Outline Dwg	16954160	
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



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 171780.60

(Model No. may contain prefix and/or suffix characters)

Catalog No : 171780.60

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)
EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:

Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:

Julian Clark
Marketing Engineer

Created on 12/29/2022

CE 22