PRODUCT INFORMATION PACKET

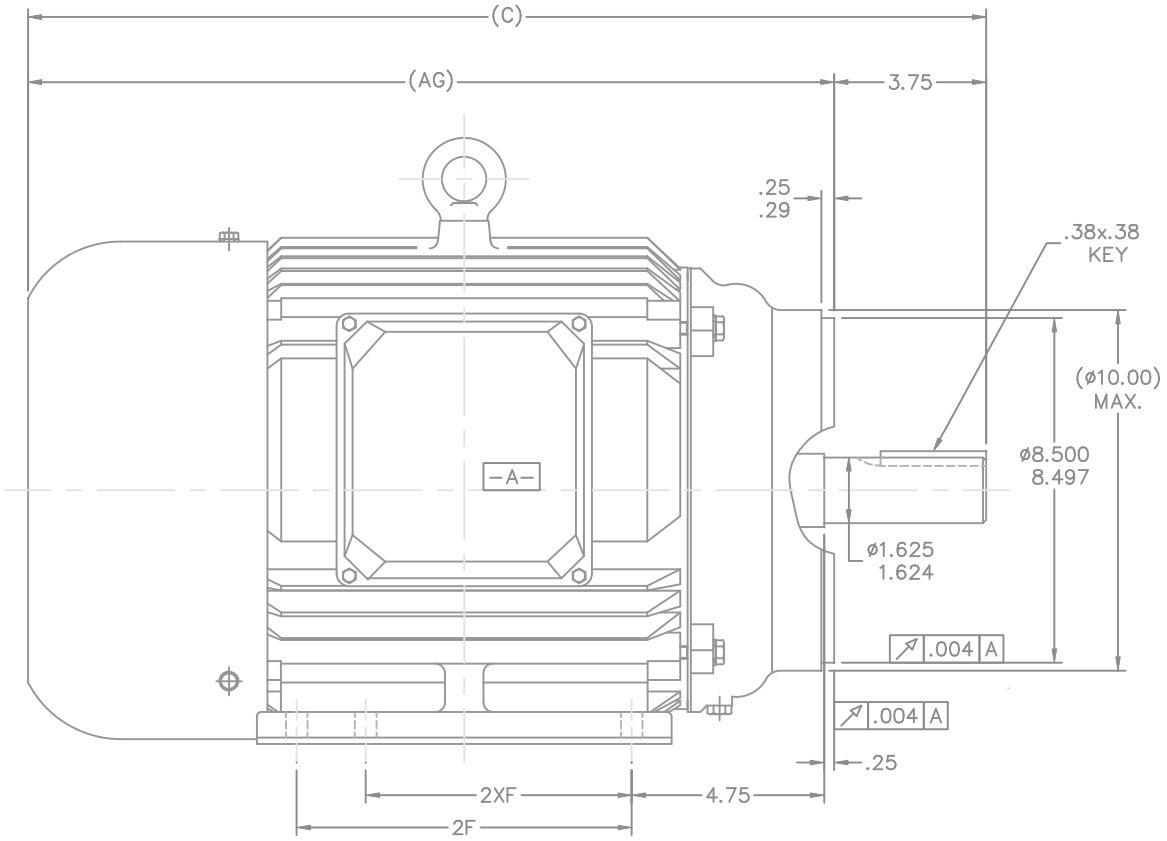
Model No: 170138.60
Catalog No: 170138.60
General Purpose Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1200 & 1000 RPM, 254TC Frame, TEFC

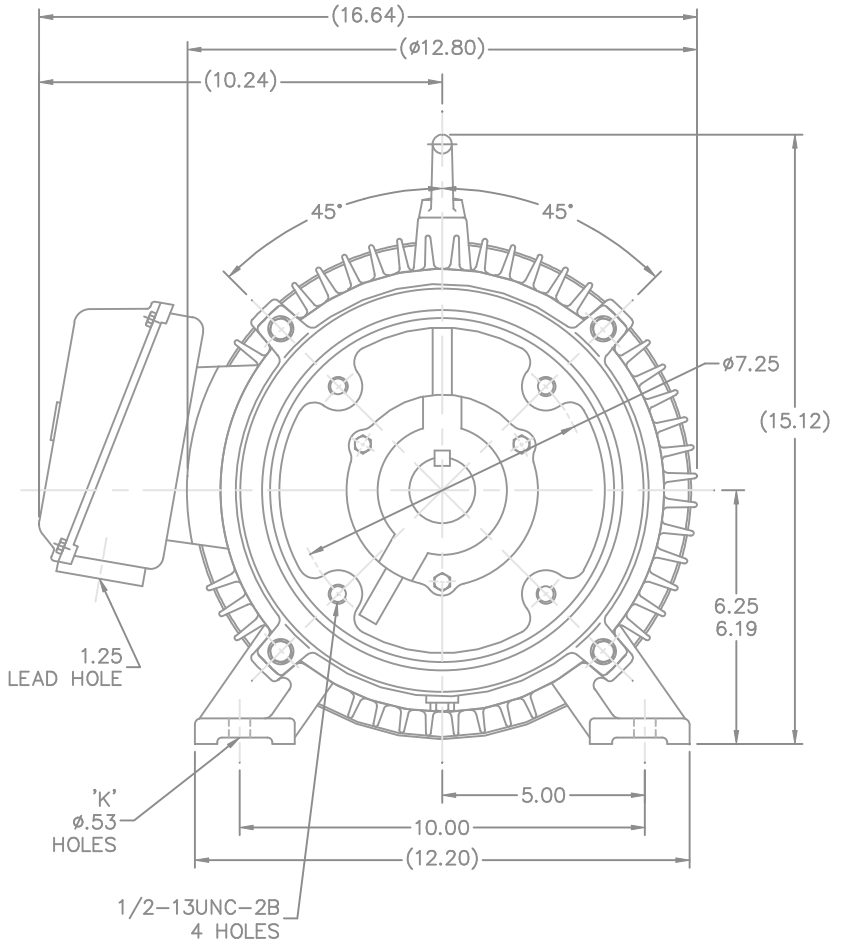
Nameplate Specifications

Phase	3	Output HP	7.50 & 5 Hp
Output KW	5.6 & 3.7 kW	Voltage	208-230/460 & 190/380 V
Speed	1185 & 990 rpm	Service Factor	1.15 & 1.15
Frame	254TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 91.7 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	23-22.2/11.1 & 19/9.5 A	Power Factor	70
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	H
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6308
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	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	23.75 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	SS622044LE-N254TC-4	Connection Drawing	004172.01





NOT DRAWN TO SCALE

DASH	FRAME	C	AG	B	2F	2XF	K	BS
---	N254TC–2	23.75	20.00	---	8.26	---	4	---
---	N254TC–4	23.75	20.00	---	8.26	---	4	---
---	N256TC–2	25.48	21.73	---	10.00	8.26	6	---
---	N256TC–4	25.48	21.73	---	10.00	8.26	6	---

NO.	REVISION	BY & DATE	CHK
			ANG ±7'30"

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005

LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES

TITLE OUTLINE
254/6TC FRAME – C'FACE

MAT'L.

FINISH

CAD FILE ss622044le

RFP

DIST LB

SIZE B

DRAWING NO. SS622044LE

PAGE OF

REV.

DRAWN MSG 08–11–2005

CHK ML 08–12–2005

APPD LMC 08–23–2005

SCALE 3=8

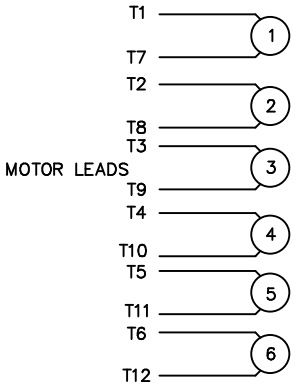
REF

FMF

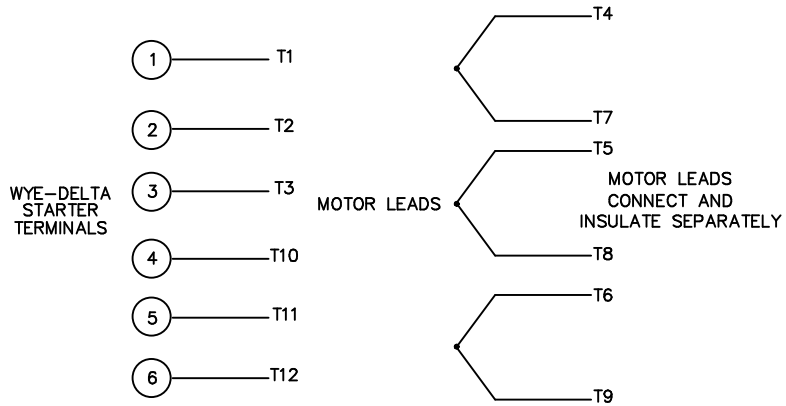
PREV 250013670–3700

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

LOW VOLTAGE CONNECTION

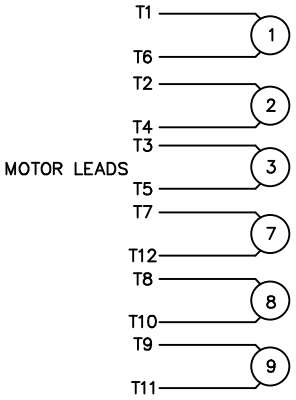


HIGH VOLTAGE CONNECTION



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

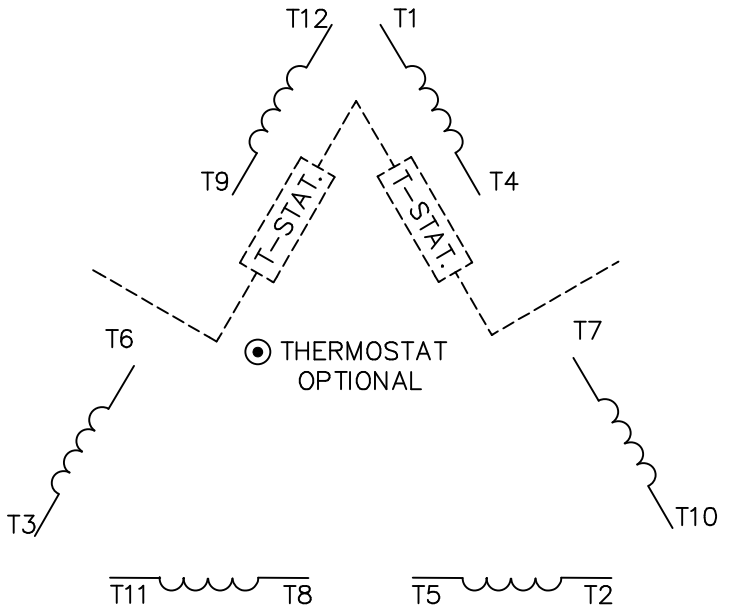
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



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

6/28/2007 3:22:15 PM -

LEESON®

CERTIFICATION DATA SHEET

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

CATALOG #: 170138.60

CONN. DIAGRAM: 004172.01
OUTLINE: B-SS622044LE
WINDING #: T12906018 3

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2&5	5.60&3.70	1200	1185&990	254TC	TEFC	H	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	208-230/460&190/380	23-22.2/11.1&19/9.5	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	91.7&91.7	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	89.5	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	70&65	3/4 LOAD PF:	65	1/2 LOAD PF:	53.5	90.2	SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
33.2 LB-FT	134 / 67	65 LB-FT 195 %	112.5 LB-FT 338 %	26

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
52 dBA	62 dBA	2.472 LB-FT^2	2.5 LB-FT^2	- SEC.	-	- LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	CAST IRON
6309	6308						

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

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

NOTES

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*

Data Sheet

Date: 1/23/2018

LEESON

170138.60

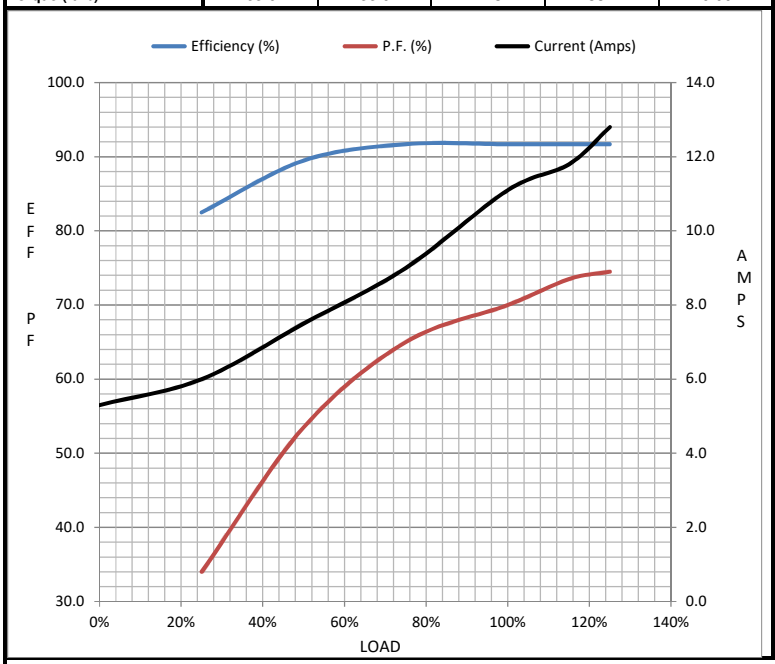
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	5.3	6.0	7.5	9.0	11.1	11.8	12.8	67.0	
Torque (ft-lb)	0.00	8.2	16.5	24.8	33.2	38.2	41.6	65.0	
RPM	1200	1197	1194	1190	1185	1,184	1180	0	
Efficiency (%)		82.5	89.5	91.7	91.7	91.7	91.7		
P.F. (%)	6.0	34.0	53.5	65.0	70.0	73.5	74.5	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	1135	1185	1200
Current (Amps)	67.0	64.0	42.0	11.1	5.3
Torque (ft-lb)	65.0	55.0	113	33.2	0.00



Information Block

HP	7.5	
Sync. RPM	1200	
Frame	254	
Enclosure	TEFC	
Construction	TFC	
Voltage	208-230/460#190/380	V
Frequency	60	Hz
Design	B	
LR Code letter	H	
Service Factor	1.15	
Temp Rise @ FL	31	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	2.47	Lb-Ft²
Ref Wdg	T12906018 NONE	
Sound Pressure @ 1M	52	dBA
VFD Rating	CONSTANT 10:1	
Outline Dwg	B-SS622044LE	
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