

PRODUCT INFORMATION PACKET



Model No: 171589.60

Catalog No: 171589.60

General Purpose Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,
256TC Frame, TEFC



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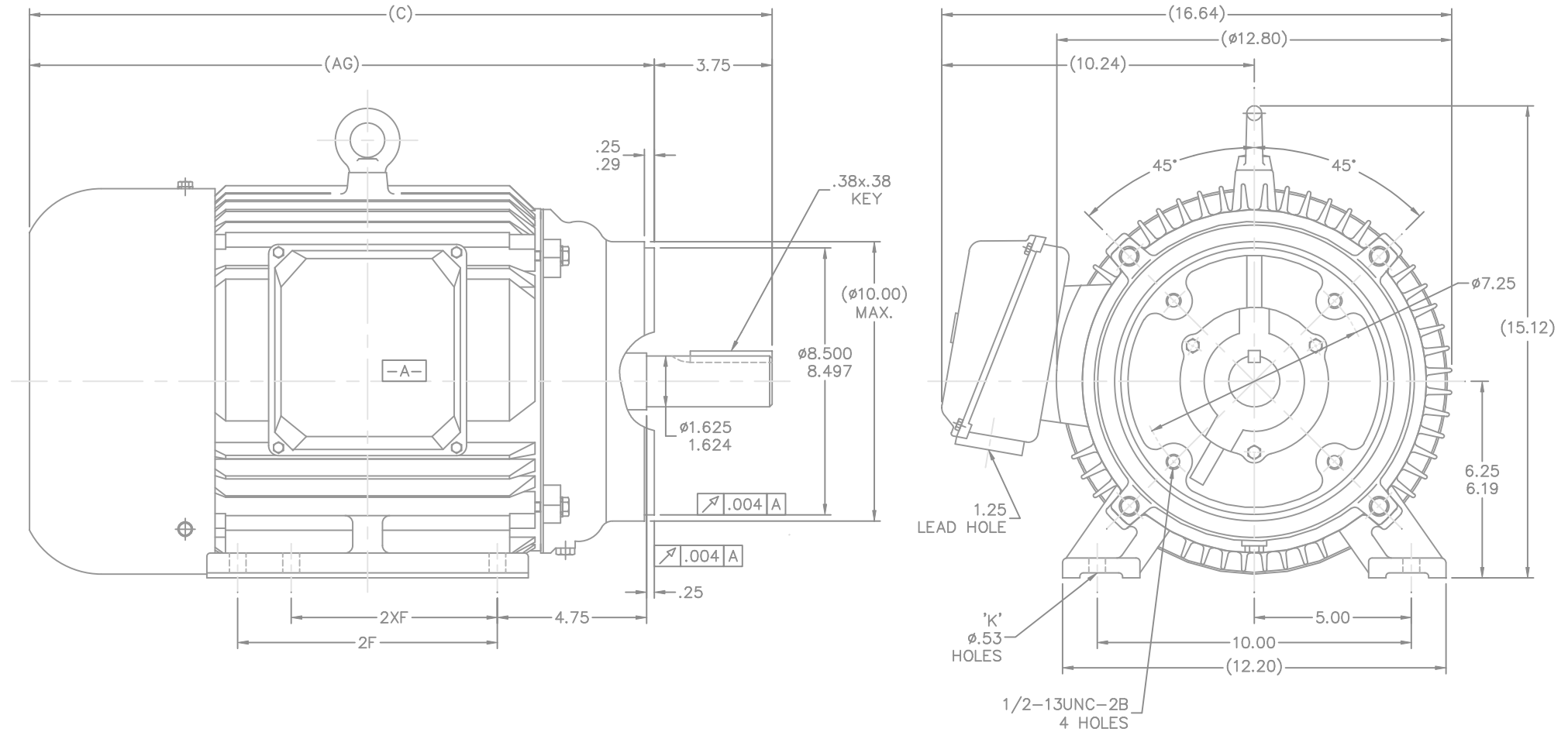


Nameplate Specifications

Phase	3	Output HP	20 & 15 Hp
Output KW	14.9 & 11.2 kW	Voltage	208-230/460 & 190/380 V
Speed	1770 & 1475 rpm	Service Factor	1.15 & 1.15
Frame	256TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	54-50/25 & 43.5/21.7 A	Power Factor	82
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	NONE	Opp Drive End Bearing Size	NONE
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	.322 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	25.48 in
Shaft Diameter	1.625 in	Shaft Extension	4 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Connection Drawing	004172.01	Outline Drawing	SS622044LE-N256TC-4



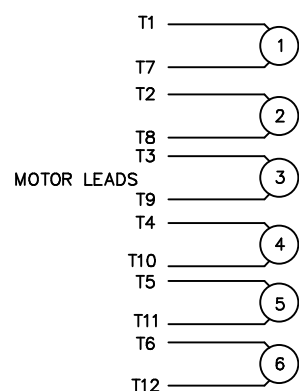
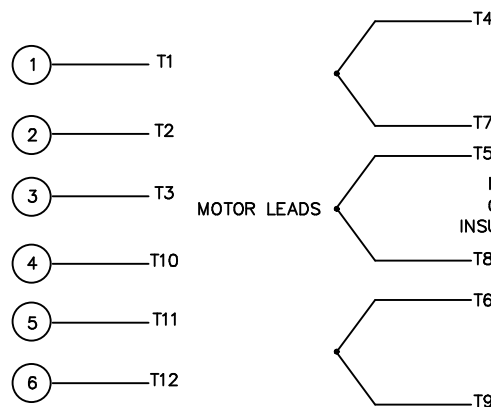
NOT DRAWN TO SCALE

											TOLERANCES UNLESS SPECIFIED			ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN MSG 08-11-2005		
											DEC.	INCHES		CHK	ML	08-12-2005		
											.X	±.1		APPD	LMC	08-23-2005		
											.XX	±.03		TITLE OUTLINE 254/6TC FRAME – C'FACE		SCALE	3=8	
											.XXX	±.005				REF		
											.XXXX	±.0005		MAT'L		FMF		
											CHK	ANG	±7°30"	FINISH		PREV	250013670-3700	
									NO.		REVISION		BY & DATE		RFP		CAD FILE ss622044le	
															DIST LB		SIZE B	
																	DRAWING NO. SS622044LE	
																	PAGE OF	
																	REV.	

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

LOW VOLTAGE CONNECTION

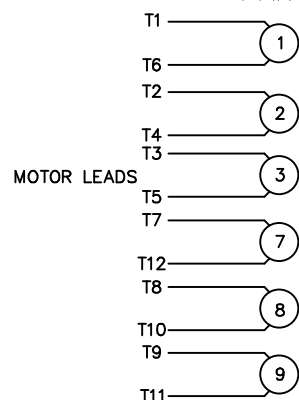
HIGH VOLTAGE CONNECTION

WYE-DELTA
STARTER
TERMINALSWYE-DELTA
STARTER
TERMINALS

MOTOR LEADS

MOTOR LEADS
CONNECT AND
INSULATE SEPARATELY

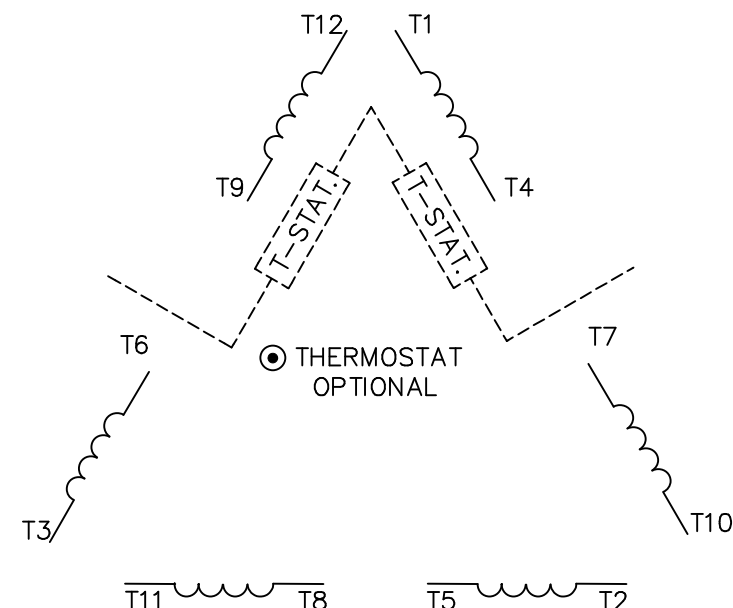
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR
PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLYPART WINDING
STARTER
TERMINALS

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	

TOLERANCES
UNLESS SPECIFIED

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2"

ELECTRIC MOTORS
GEARMOTORS
AND DRIVES

DRAWN WLW 09/08/77

CHK RPB 09/12/77

APPD JCW 09/12/77

TITLE DELTA - WYE CONNECTION DIAGRAM

SCALE 1=1

REF

FMF

PREV

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

NO. REVISION

BY & DATE

CHK

ANG

FINISH

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RFP

DIST

CAD FILE 00417201

SIZE

A

DRAWING NO.

004172-01

REV.

03



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: 004172.01
OUTLINE: SS622044LE
WINDING: T12904020

CAT #: 171589.60

NONE 3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1775	256TC	TEFC	TFC	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	208-230/460#190/380	54-49/24.5&43.5/21.7	START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.0	1/2 LD EFF	92.4	GTD EFF		ELECT. TYPE	
F.L. PF	82.2	3/4 LD PF	77.0	1/2 LD PF	68.0		91.7	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
59.5 LB-FT	145	115 LB-FT 193%	195 LB-FT 328%	43

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
75 dBA	84 dBA	2.97 LB-FT²	0 LB-FT²	20 SEC.	2	0 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	N - LEESON WATTS

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
NONE	NONE						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0	0	0	0	0	0.150	ODE

* N O T E S *			INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: NONE
			ENCODER: NONE NONE NONE NONE PPR
DATE: 1/30/2018		BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE UL: V-INS, CONST UL REC	

Data Sheet

Date: 1/30/2018

171589.60



Data @ 460 V

Motor Load Data

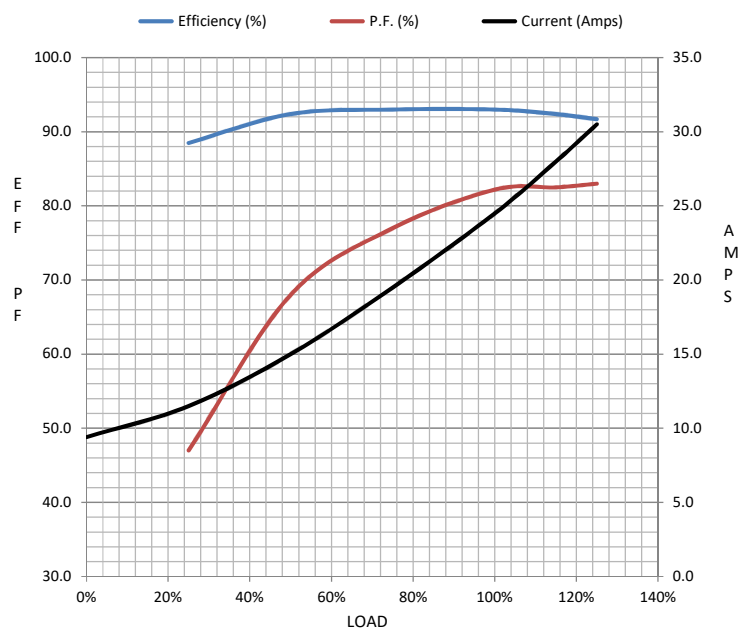
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	9.4	11.5	15.0	19.5	24.5	28.0	30.5	145	
Torque (ft-lb)	0.00	15.0	30.0	45.0	59.5	70.0	75.0	115	
RPM	1800	1795	1782	1778	1775	1,768	1765	0	
Efficiency (%)		88.5	92.4	93.0	93.0	92.4	91.7		
P.F. (%)	5.5	47.0	68.0	77.0	82.2	82.5	83.0	37.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1775	1800
Current (Amps)	145	135	98.0	24.5	9.4
Torque (ft-lb)	115	95.0	195	59.5	0.00

Information Block

HP	20.0			
Sync. RPM	1800			
Frame	256			
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	43 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk²	2.97 Lb-Ft²			
Ref Wdg	T12904020 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	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

