

PRODUCT INFORMATION PACKET



Model No: 171597.60

Catalog No: 171597.60

General Purpose Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,
405TC Frame, TEFC



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Nameplate Specifications

Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	208-230/460 & 190/380 V
Speed	1785 & 1485 rpm	Service Factor	1.15 & 1.15
Frame	405TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	254-225/112.5 & 201/100.5 A	Power Factor	87.1
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6314
UL	Recognized	CSA	N
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	.045 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	37.91 in
Shaft Diameter	2.875 in	Shaft Extension	7.25 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Outline Drawing	SS622048LE	Connection Drawing	004172.01

Technical drawing of a motor assembly, showing side and front views with dimensions and labels.

Side View Dimensions:

- Overall width: (C)
- Overall length: (AG)
- Distance from centerline to mounting flange: 7.00
- Mounting flange thickness: .25
- Keyway depth: .29
- Key: .75x.75 KEY
- Shaft diameter: $\phi 12.500$ 12.495
- Shaft length: (15.50) MAX.
- Shaft diameter at keyway: $\phi 2.875$ 2.874
- Surface finish: $\sqrt{.007}$ A
- Distance from centerline to mounting flange: 6.62
- Distance from centerline to mounting flange: 2XF
- Distance from centerline to mounting flange: 2F

Front View Dimensions:

- Overall diameter: (27.17)
- Distance from centerline to mounting flange: (17.32)
- Mounting flange diameter: $\phi 19.70$
- Mounting flange thickness: .25
- Mounting flange diameter: $\phi 11.00$
- Mounting flange thickness: 10.00
- Mounting flange thickness: 9.94
- Mounting flange diameter: 8.00
- Mounting flange diameter: 16.00
- Mounting flange diameter: (19.00)
- Mounting flange diameter: 3.00
- Mounting flange diameter: 1.00
- Mounting flange diameter: .84
- Mounting flange diameter: 5/8-11UNC-2B 8 HOLES
- Mounting flange diameter: 'K'
- Mounting flange diameter: 3.00 LEAD HOLE
- Mounting flange diameter: 45°
- Mounting flange diameter: 45°

Labels:

- A -
- 3.00 LEAD HOLE
- 'K'
- $\phi .84$ HOLES
- 5/8-11UNC-2B 8 HOLES

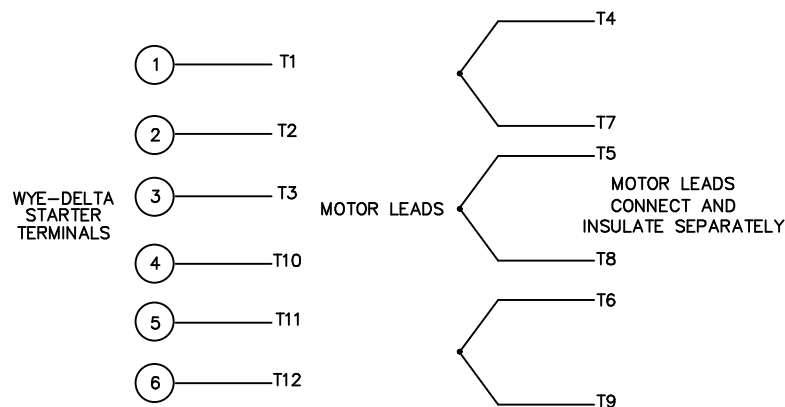
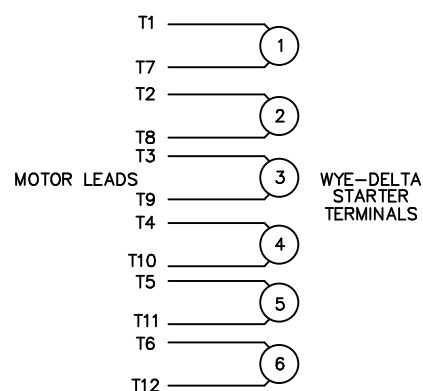
NOT DRAWN TO SCALE

											TOLERANCES UNLESS SPECIFIED		LEESON 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 400TC FR. – C'FACE		SCALE 3=64					
											.XXX ±.005				REF					
											.XXXX ±.0005				FMF					
											MAT'L									
											FINISH				PREV 250015560/90					
NO. REVISION									BY & DATE		CHK	ANG	±7°30"	CAD FILE ss622048le		SIZE	DRAWING NO.	PAGE	OF	REV.
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 THIS IS AN ELECTRONICALLY GENERATED DOCUMENT – DO NOT SCALE THIS PRINT									RFP						B		SS622048LE			
DASH	FRAME	C	AG	B	2F	2XF	K	BS	DIST		WA									

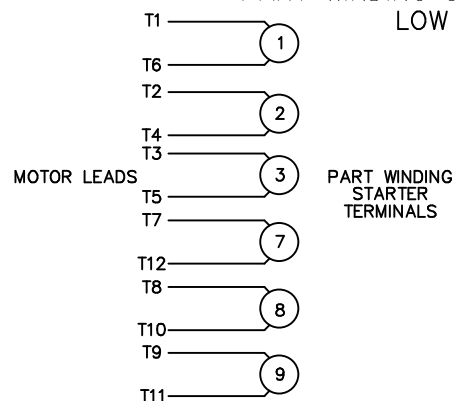
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



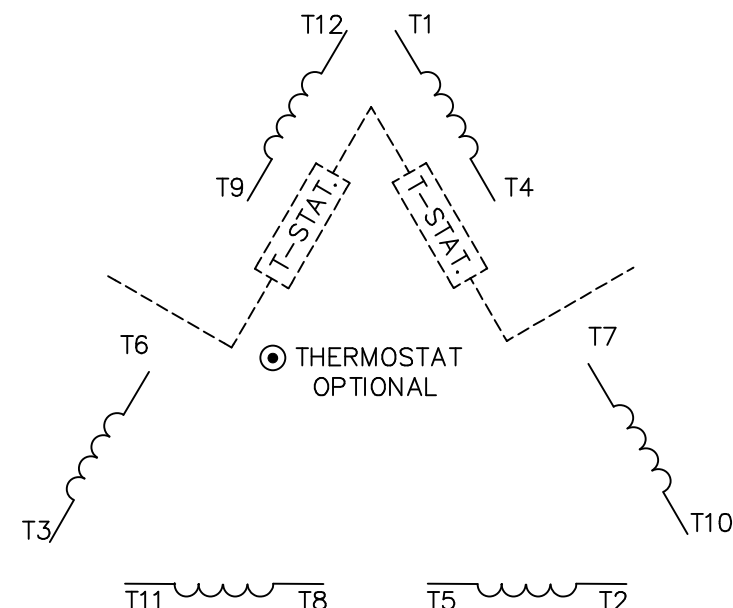
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

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	

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

SCALE 1=1

REF

FMF

PREV

NO.	REVISION	BY & DATE	CHK	ANG
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	.XX	±.01
02	ADDED T-STAT. NOTES PER ELECTRICAL	KMM 06/02/98	.XXX	±.005
01	REDRAWN TO CAD	DBT 06/02/97	.XXXX	±.0005

TITLE DELTA - WYE CONNECTION DIAGRAM

MAT'L.

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: SS622048LE
WINDING: T19604010

CAT #: 171597.60

FR 3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1784	405TC	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	208-230/460#190/380	254-224/112&201/100.5	START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	95.5	3/4 LD EFF	95.5	1/2 LD EFF	94.8	GTD EFF	ELECT. TYPE		
F.L. PF	87.4	3/4 LD PF	85.7	1/2 LD PF	80.4	0.0	SQ CAGE INV RATED		

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
294 LB-FT	725	660 LB-FT 224%	675 LB-FT 230%	65

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	0.00 LB-FT²	0 LB-FT²	0 SEC.	0	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	IN - LEESON WATTS

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	CAST IRON
BALL	BALL						
6316	6314						

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: 2/1/2018			BRAKE: NONE NONE NONE
			FT-LB: NA VOLTAGE: NONE UL: V-INS, CONST UL REC
			HZ:

Data Sheet

Date: 2/1/2018

171597.60



Data @ 460 V

Motor Load Data

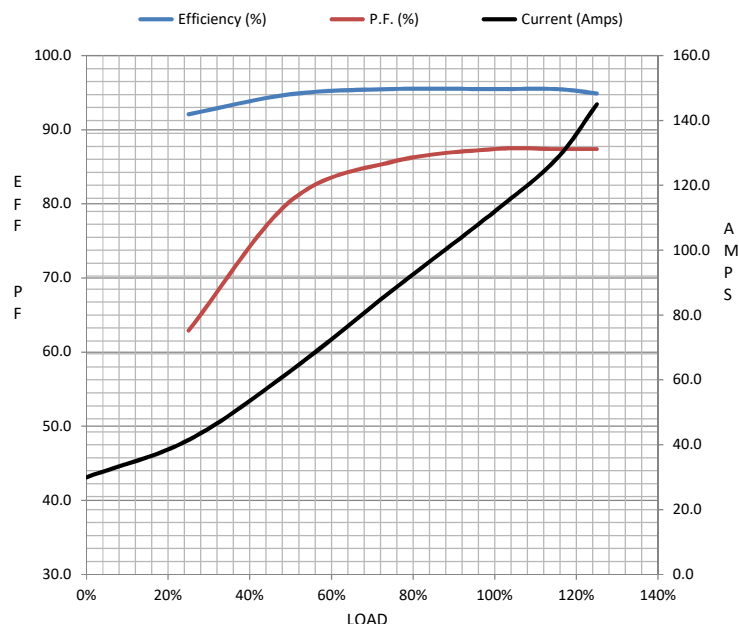
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	30.0	41.5	62.8	87.7	112	128	145	725	
Torque (ft-lb)	0.00	75.0	150	225	294	338	375	660	
RPM	1800	1796	1791	1788	1784	1782	1777	0	
Efficiency (%)		92.1	94.8	95.5	95.5	95.5	94.9		
P.F. (%)	6.2	62.9	80.4	85.7	87.4	87.4	87.4	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1784	1800
Current (Amps)	725	650	475	112	30.0
Torque (ft-lb)	660	560	675	294	0.00

Information Block

HP	100.0			
Sync. RPM	1800			
Frame	405			
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	65	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	0.00	Lb-Ft²		
Ref Wdg	T19604010 FR			
Sound Pressure @ 1M	999	dBA		
VFD Rating	CONSTANT 2:1			
Outline Dwg	SS622048LE			
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

