

PRODUCT INFORMATION PACKET



Model No: 171590.60

Catalog No: 171590.60

General Purpose Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 3600 & 3000 RPM,
284TSC 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	3555 & 2955 rpm	Service Factor	1.15 & 1.15
Frame	284TSC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	65-56.8/28.4 & 53.6/26.8 A	Power Factor	88
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6309
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	2	Rotation	Reversible
Resistance Main	.225 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	24.88 in
Shaft Diameter	1.625 in	Shaft Extension	3.25 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Outline Drawing	SS622045LE	Connection Drawing	004172.01

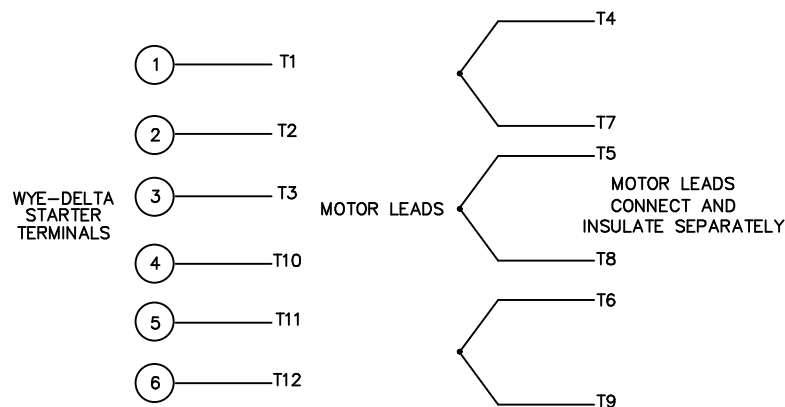
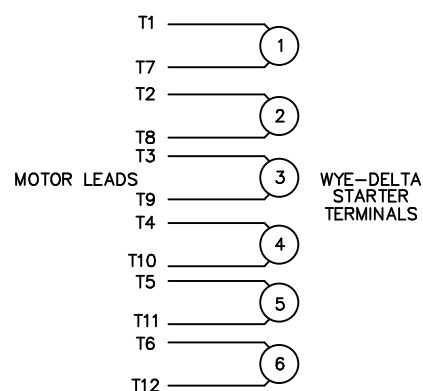


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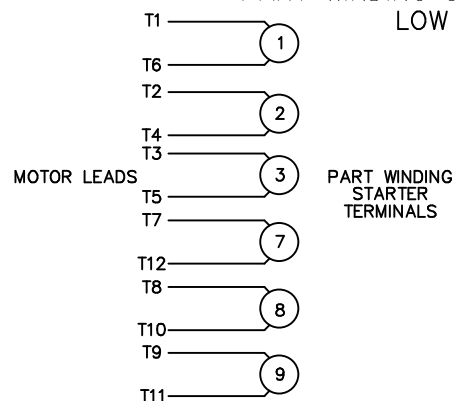
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



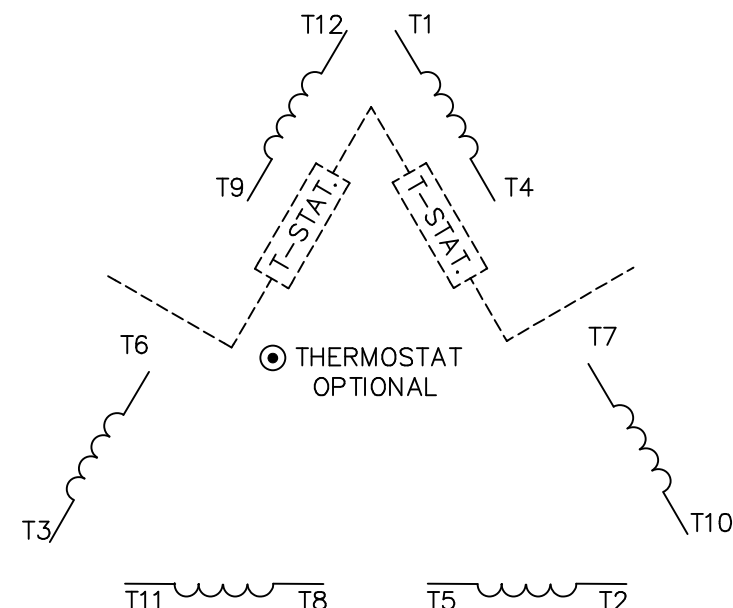
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

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



ELECTRIC MOTORS
GEARMOTORS
AND DRIVES

DRAWN WLW 09/08/77
CHK RPB 09/12/77
APPD JCW 09/12/77

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
NO.	REVISION	BY & DATE	CHK	ANG ±1/2"

TITLE DELTA - WYE CONNECTION DIAGRAM

SCALE 1=1

MAT'L.

REF

FINISH

FMF

PREV

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RFP

CAD FILE 00417201

SIZE

DRAWING NO.

REV.

DIST

A

004172-01

03



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: 004172.01
OUTLINE: SS622045LE
WINDING: T14502016

CAT #: 171590.60

FR 3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
25	18.7	3600	3557	284TSC	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	208-230/460#190/380	66-56.5/28.3&53.5/26.8	START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	93.9	3/4 LD EFF	93.3	1/2 LD EFF	94.8	GTD EFF	ELECT. TYPE
F.L. PF	87.9	3/4 LD PF	86.4	1/2 LD PF	83.9	91.7	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
36.9 LB-FT	182	72.0 LB-FT 195%	102 LB-FT 276%	58

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	1.92 LB-FT²	1.9 LB-FT²	10 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	N - LEESON WATTS

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	TS	NONE	NONE	AISI 1045 (C-240)	CAST IRON
BALL	BALL						
6311	6309						

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 10:1 INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR
DATE: 1/19/2018			BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE UL: V-INS, CONST UL REC

Data Sheet

Date: 1/19/2018

171590.60



Data @ 460 V

Motor Load Data

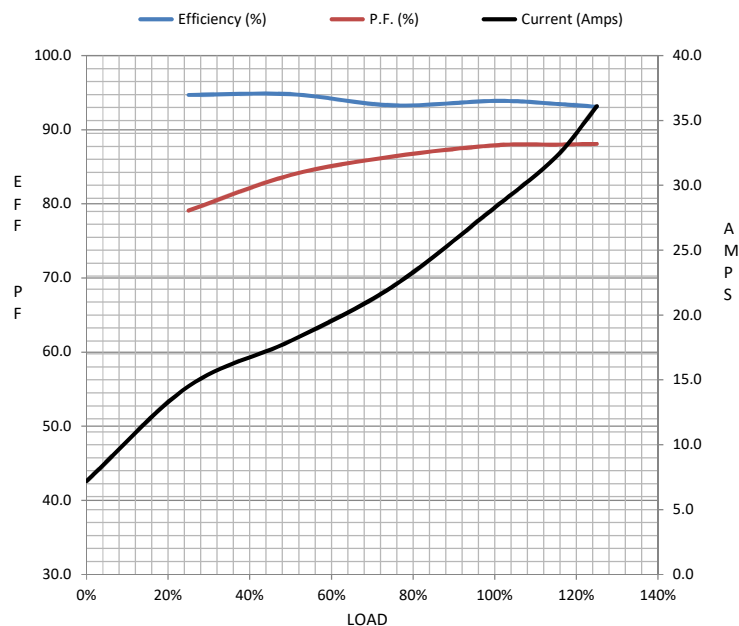
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	7.2	14.5	18.0	22.2	28.3	32.2	36.1	182	
Torque (ft-lb)	0.00	17.0	22.5	28.1	36.9	41.9	46.9	72.0	
RPM	3600	3583	3576	3568	3557	3,551	3541	0	
Efficiency (%)		94.7	94.8	93.3	93.9	93.5	93.1		
P.F. (%)	7.5	79.1	83.9	86.4	87.9	88.0	88.1	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3312	3557	3600
Current (Amps)	182	167	109	28.3	7.2
Torque (ft-lb)	72.0	57.8	102	36.9	0.00

Information Block

HP	25.0			
Sync. RPM	3600			
Frame	180			
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	1.92 Lb-Ft²			
Ref Wdg	T14502016 FR			
Sound Pressure @ 1M	999 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	SS622045LE			
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

