

PRODUCT INFORMATION PACKET



Model No: 171686.60

Catalog No: 171686.60

General Purpose Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,
284TC Frame, DP

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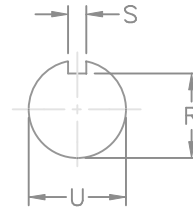
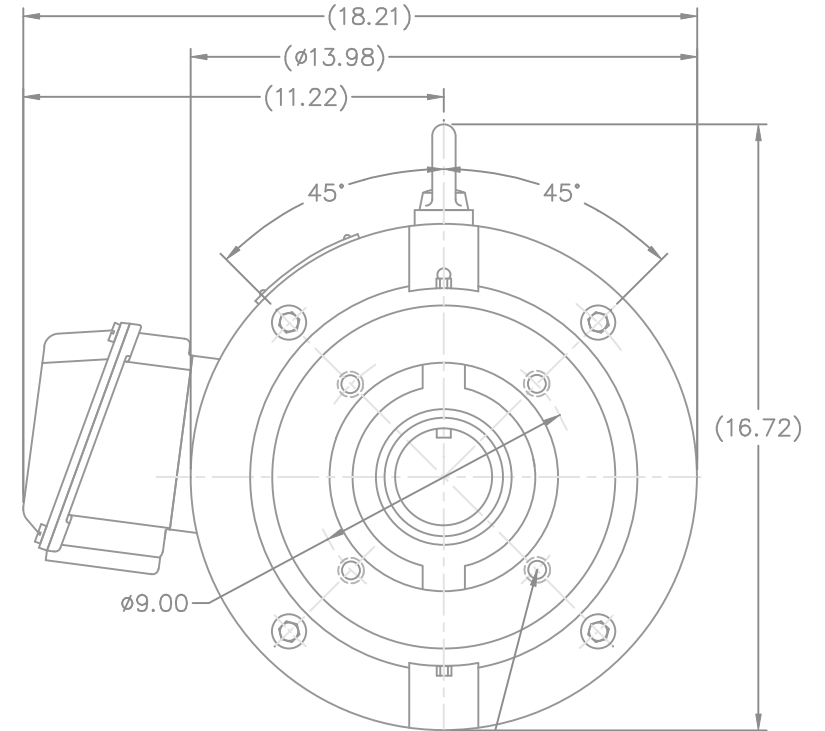
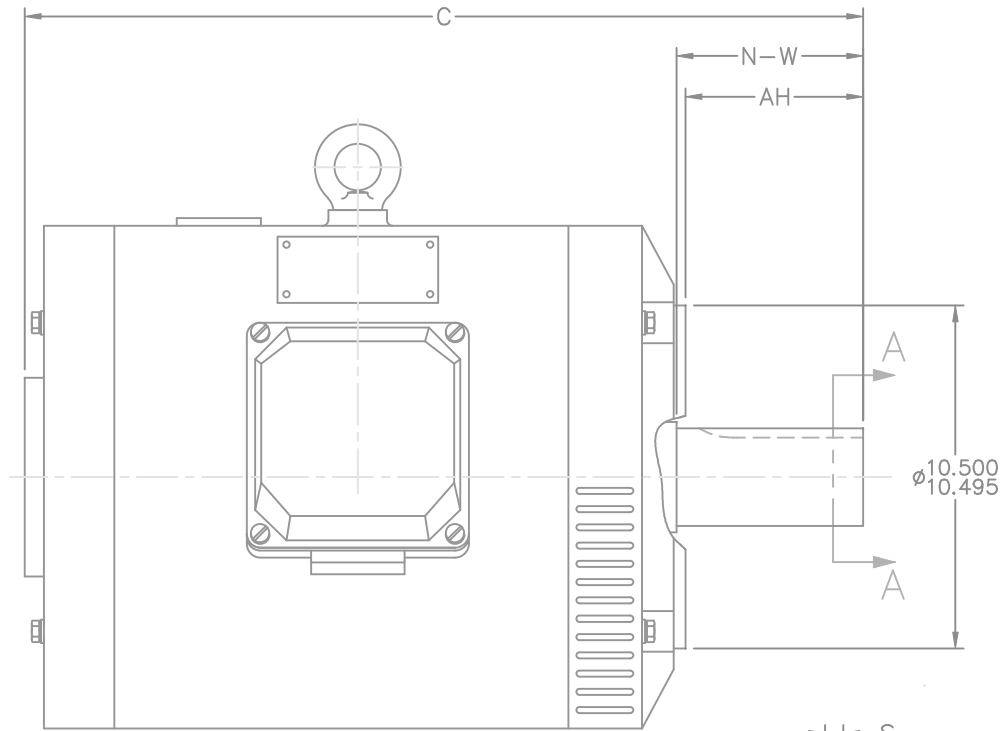


Nameplate Specifications

Phase	3	Output HP	25 & 20 Hp
Output KW	18.7 & 14.9 kW	Voltage	208-230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	284TC	Enclosure	Drip Proof
Thermal Protection	Thermostat	Efficiency	93.6 & 93.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	66-59.5/29.8 & 54/27 A	Power Factor	84
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6211
UL	Recognized	CSA	Y
CE	Y	IP Code	12
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	.284 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	23.54 in
Shaft Diameter	1.875 in	Shaft Extension	4.61 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Outline Drawing	SS622040LE	Connection Drawing	004172.01



SECT A-A

1/2-13UNC-2B
4 HOLES
Ø .050

(DRAWING IS NOT TO SCALE)

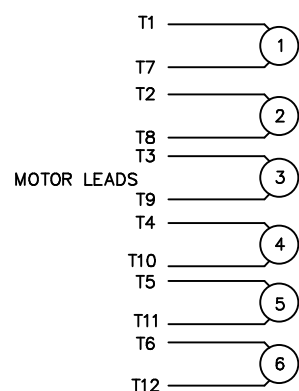
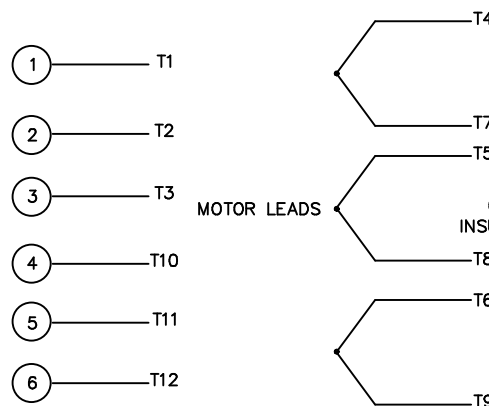
(kW)	ITEM#	MODEL	C	N-W	AH	U	R	S
22	280114070	N284TSC-2	22.16	3.23	3.00	1.614	1.417	.375
18.5	280114010	N284TC-4	23.54	4.61	4.38	1.875	1.60	.500

			TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN RWR 07-29-2005	
			DEC.	INCHES		CHK ML 08-16-2005	
			.X	±.1		APPD	
			.XX	±.03		SCALE 5=18	
			.XXX	±.005		REF	
			.XXXX	±.0005	MAT'L		FMF HE BEI ELEC. MOTR
			CHK	ANG ±1/2"	FINISH		PREV N280TSC-2/TC-4
NO. REVISION			BY & DATE		RFP		CAD FILE SS622040LE
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			DIST		SIZE B		DRAWING NO. SS622040LE
					PAGE 1 OF 1		REV.

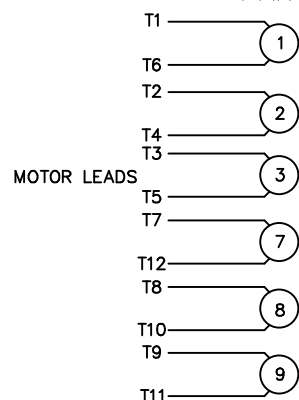
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

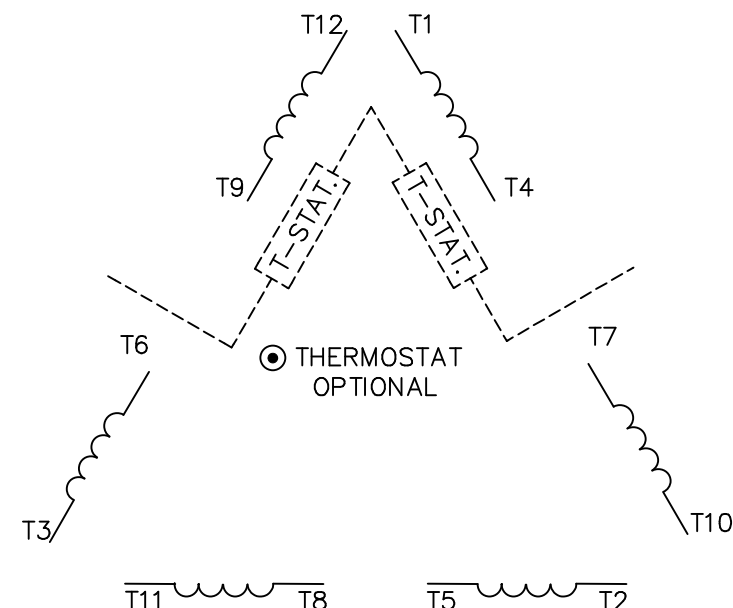
HIGH VOLTAGE CONNECTION

WYE-DELTA
STARTER
TERMINALSWYE-DELTA
STARTER
TERMINALS

MOTOR LEADS

MOTOR LEADS
CONNECT AND
INSULATE SEPARATELYREFER 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
TERMINALSREFER 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

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"

MAT'L.

FINISH

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RFP

DIST

CAD FILE 00417201

SIZE

A

DRAWING NO.

004172-01

REV.

03



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: 004172.01

CAT #: 171686.60

OUTLINE: SS622040LE

WINDING: T14504007

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
25	18.7	1800	1775	284TC	DP	TDC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	208-230/460#190/380	66-59.5/29.8&58/29	Y START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	93.6	3/4 LD EFF	93.6	1/2 LD EFF	92.4	GTD EFF	ELECT. TYPE
F.L. PF	84.0	3/4 LD PF	81.0	1/2 LD PF	71.6	93.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
74.0 LB-FT	182	141 LB-FT 191%	185 LB-FT 250%	45

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
75 dBA	84 dBA		0.00 LB-FT²	0 LB-FT²	15 SEC.	2	404 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	HORIZONTAL	NO	NONE	NO	NONE	WATTSaver

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
6312 6211						

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: 9/10/2018			BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ: UL: Y-(LEESON UL REC)

Data Sheet

Date: 9/10/2018

171686.60



Data @ 460 V

Motor Load Data

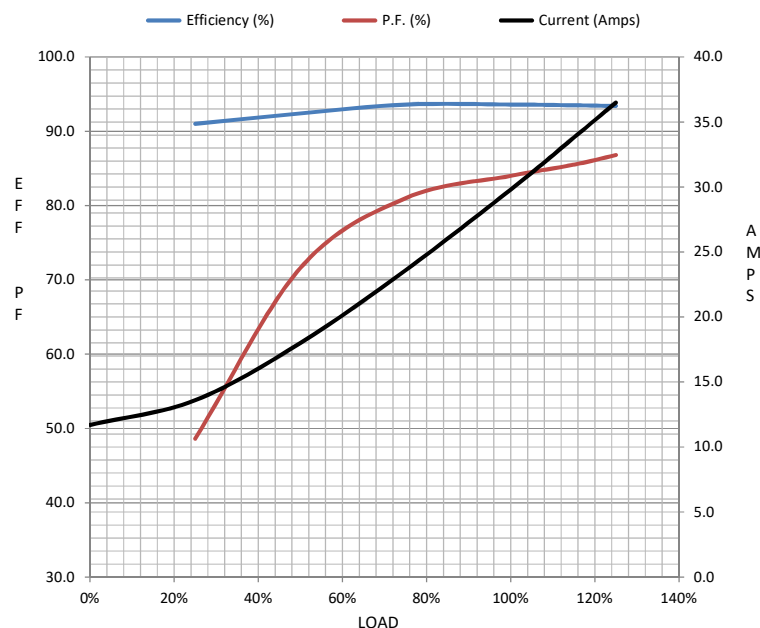
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	11.7	13.6	18.0	23.6	29.8	33.8	36.5	182	
Torque (ft-lb)	0.00	18.8	37.5	56.3	74.0	85.1	93.8	141	
RPM	1800	1795	1790	1785	1775	1,772	1770	0	
Efficiency (%)		91.0	92.4	93.6	93.6	93.5	93.4		
P.F. (%)	5.2	48.6	71.6	81.0	84.0	85.5	86.8	35.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1775	1800
Current (Amps)	182	150	125	29.8	11.7
Torque (ft-lb)	141	115	185	74.0	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	DP			
Construction	TDC			
Voltage	208-230/460#190/380	V		
Frequency	60	Hz		
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	45	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	0.00	Lb-Ft²		
Ref Wdg	T14504007 NONE			
Sound Pressure @ 1M	75	dBA		
VFD Rating	CONSTANT 2:1			
Outline Dwg	SS622040LE			
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

