

PRODUCT INFORMATION PACKET



Model No: 171377.60

Catalog No: 171377.60

WATTSaver® General Purpose Motor, 30 & 25 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V,
1800 & 1500 RPM, 286TC Frame, DP



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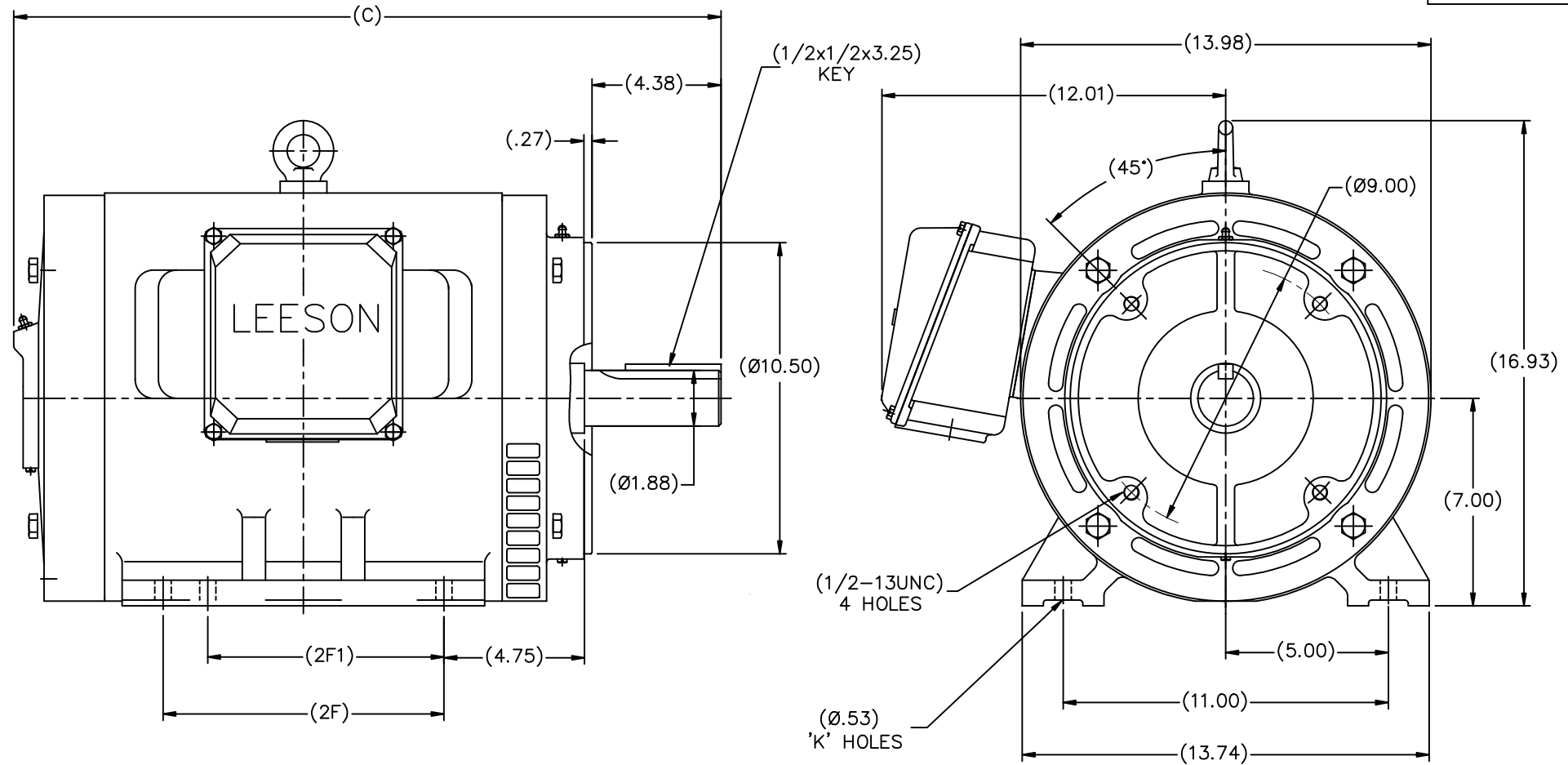


Nameplate Specifications


Phase	3	Output HP	30 & 25 Hp
Output KW	22.4 & 18.7 kW	Voltage	208-230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	286TC	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	94.1 & 94.1 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	78-71/35.5 & 86/43 A	Power Factor	83
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	H
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	.233 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	25.51 in
Shaft Diameter	1.875 in	Shaft Extension	4.62 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 10:1
Connection Drawing	004172.01	Outline Drawing	SS622289



DRAWING NOT TO SCALE

						TOLERANCES UNLESS SPECIFIED			 ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN MOL 03-10-2011																						
						DEC. INCHES				CHK MOL 03-10-2011																						
						.X ±.1				APPD SB 03-10-2011																						
Cat. No.						.XX ±.03				TITLE OUTLINE N280TC FR-4W2- C'FACE - ODP			SCALE 1=4																			
FRAME						.XXX ±.005							REF																			
C						.XXXX ±.0005				MAT'L			FMF																			
2F						NO. REVISION			BY & DATE			CHK ANG ±7°30"			FINISH			PREV														
2F1						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			CAD FILE SS622289			SIZE B			DRAWING NO. SS622289			PAGE OF			REV.		
K															DIST																	
170073.60						N284TC-4W2 ODP			24.02			9.50			9.50			4														
171377.60						N286TC-4W2 ODP			25.51			11.00						6														

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



CERTIFICATION DATA SHEET

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

CATALOG #: 171377.60

CONN. DIAGRAM: 004172.01

OUTLINE: SS622289

MOUNTING: F1/F2 CAPABLE

WINDING #: T14504018 3

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30&25	22.4&18.7	1800	1780&1480	286TC	DP	H	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	208-230/460&190/380	78-71/35.5&86/43	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	94.1&94.1	3/4 LOAD EFF:	94.5	1/2 LOAD EFF:	94.1	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	83&84.1	3/4 LOAD PF:	80	1/2 LOAD PF:	71	93.6	SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
88.5 LB-FT	524 / 262	161 LB-FT 182 %	225 LB-FT 255 %	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	- LB-FT^2	- LB-FT^2	15 SEC.	2	472 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						
6312	6211	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	CAST IRON

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

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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

Data Sheet

Date: 1/23/2018

171377.60



Data @ 460 V

Motor Load Data

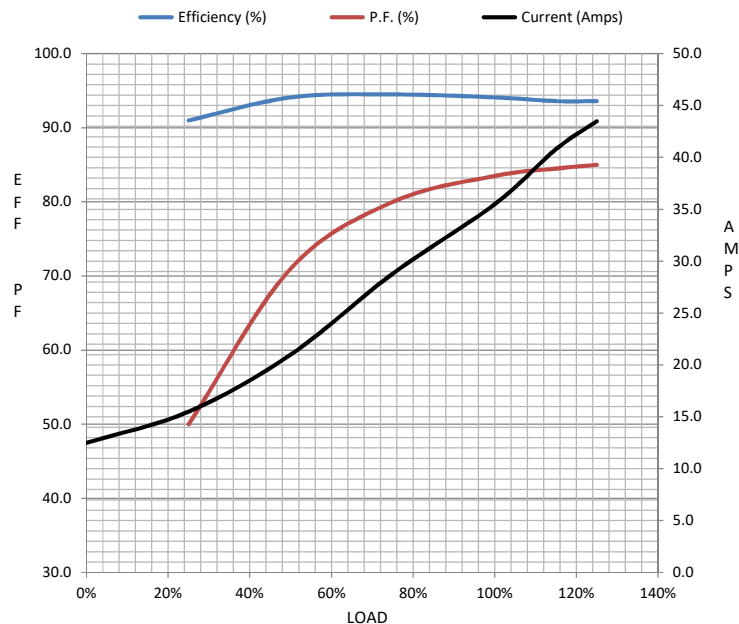
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.5	15.5	21.0	28.8	35.5	40.8	43.5	262	
Torque (ft-lb)	0.00	22.0	44.3	66.3	88.5	102	0.00	161	
RPM	1800	1795	1790	1785	1780	1,778	1775	0	
Efficiency (%)		91.0	94.1	94.5	94.1	93.6	93.6		
P.F. (%)	5.0	50.0	71.0	80.0	83.5	84.5	85.0	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1780	1800
Current (Amps)	262	240	150	35.5	12.5
Torque (ft-lb)	161	145	225	88.5	0.00

Information Block

HP	30.0			
Sync. RPM	1800			
Frame	286			
Enclosure	DP			
Construction	TDC			
Voltage	208-230/460#190/380 V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
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	T14504018 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	SS622289			
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

