

PRODUCT INFORMATION PACKET



Model No: 171684.60

Catalog No: 171684.60

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

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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	1775 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	256TC	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	93 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	55-51/25.5 & 47/23.5 A	Power Factor	83
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6208
UL	Recognized	CSA	Y
CE	Y	IP Code	22
Number of Speeds	1		

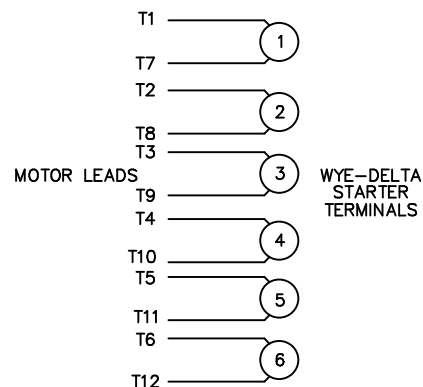
Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.41 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	22.60 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2:1
Outline Drawing	SS62037LE	Connection Drawing	004172.01

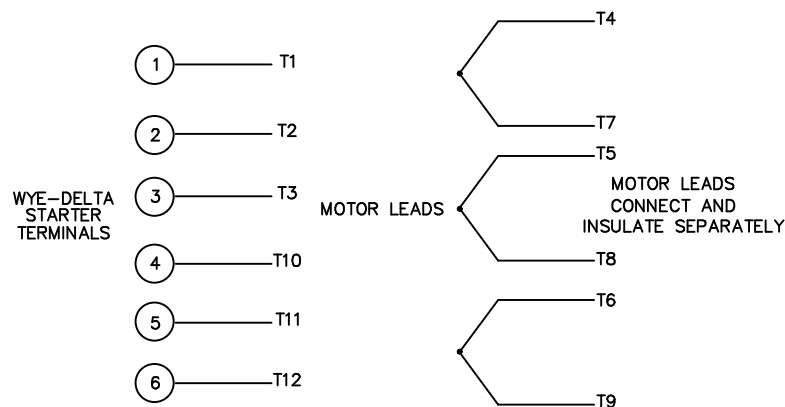
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WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

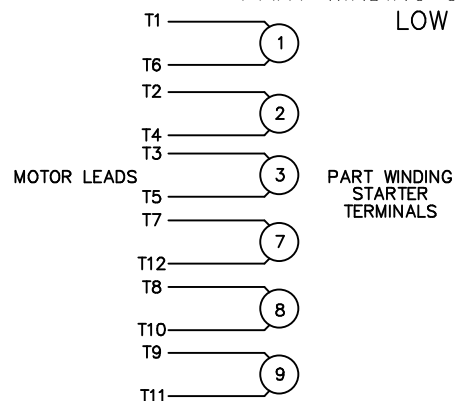


HIGH VOLTAGE CONNECTION



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

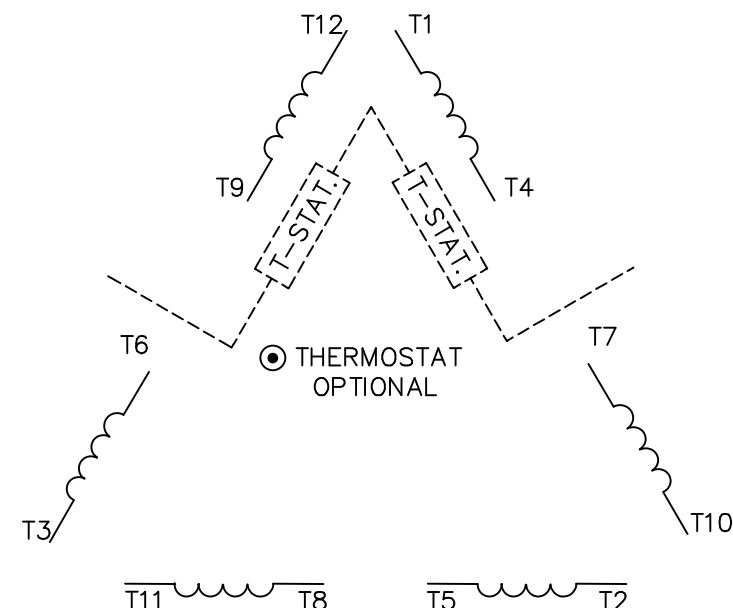
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



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		 ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN WLW 09/08/77	
				DEC.	INCHES			CHK RPB 09/12/77	
				.X	±.1			APPD JCW 09/12/77	
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00		.XX	±.01	TITLE DELTA – WYE CONNECTION DIAGRAM		SCALE 1=1	
02	ADDED T–STAT. NOTES PER ELECTRICAL	KMM 06/02/98		.XXX	±.005			REF	
01	REDRAWN TO CAD	DBT 06/02/97		.XXXX	±.0005	MAT'L.		FMF	
NO.	REVISION	BY & DATE	CHK	ANG	±1/2"	FINISH		PREV	
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 00417201		SIZE	DRAWING NO.	REV.
			DIST				A	004172–01	03



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: 004172.01

CAT #: 171684.60

OUTLINE: SS62037LE

WINDING: T12904023

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1780	256TC	DP	TDC	H	A

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	208-230/460#190/380	51-49/24.5&45/22.5	Y 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	93.0	GTD EFF	ELECT. TYPE
F.L. PF	83.0	3/4 LD PF	79.0	1/2 LD PF	70.0	92.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
59.2 LB-FT	177	108 LB-FT 182%	190 LB-FT 321%	45

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
74 dBA	83 dBA		0.00 LB-FT²	0 LB-FT²	20 SEC.	2	350 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						
6309 6208	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	CAST IRON

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

171684.60



Data @ 460 V

Motor Load Data

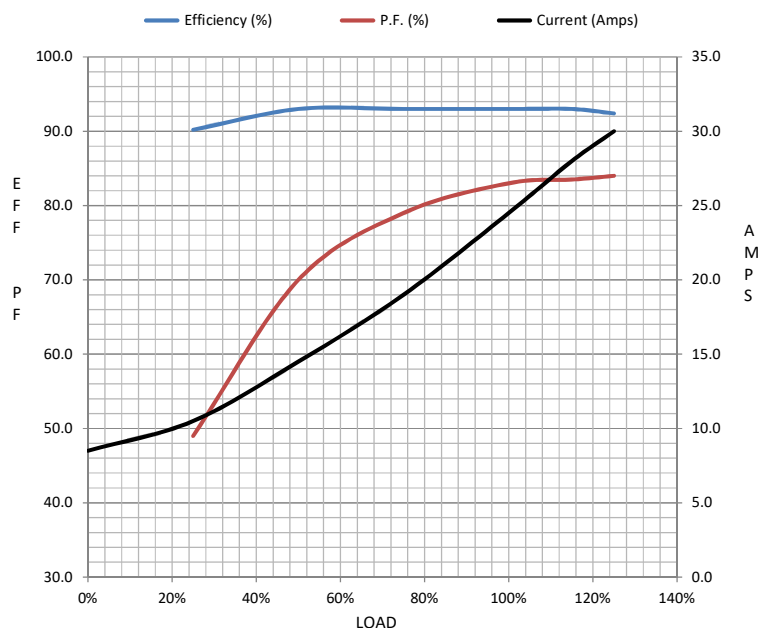
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	8.5	10.5	14.5	19.0	24.5	28.0	30.0	177	
Torque (ft-lb)	0.00	14.7	29.4	44.2	59.2	68.1	74.2	108	
RPM	1800	1795	1790	1785	1780	1,775	1775	0	
Efficiency (%)		90.2	93.0	93.0	93.0	93.0	92.4		
P.F. (%)	5.0	49.0	70.0	79.0	83.0	83.5	84.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1780	1800
Current (Amps)	177	160	100	24.5	8.5
Torque (ft-lb)	108	88.0	190	59.2	0.00

Information Block

HP	20.0			
Sync. RPM	1800			
Frame	256			
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	T12904023 NONE			
Sound Pressure @ 1M	74	dBA		
VFD Rating	CONSTANT 2:1			
Outline Dwg	SS62037LE			
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

