

PRODUCT INFORMATION PACKET



Model No: 193315.60

Catalog No: 193315.60

LEESON® PASSPORT 15 HP General Purpose, 3 phase, 3600 RPM, 230/460 V, 160M Frame, TEFC



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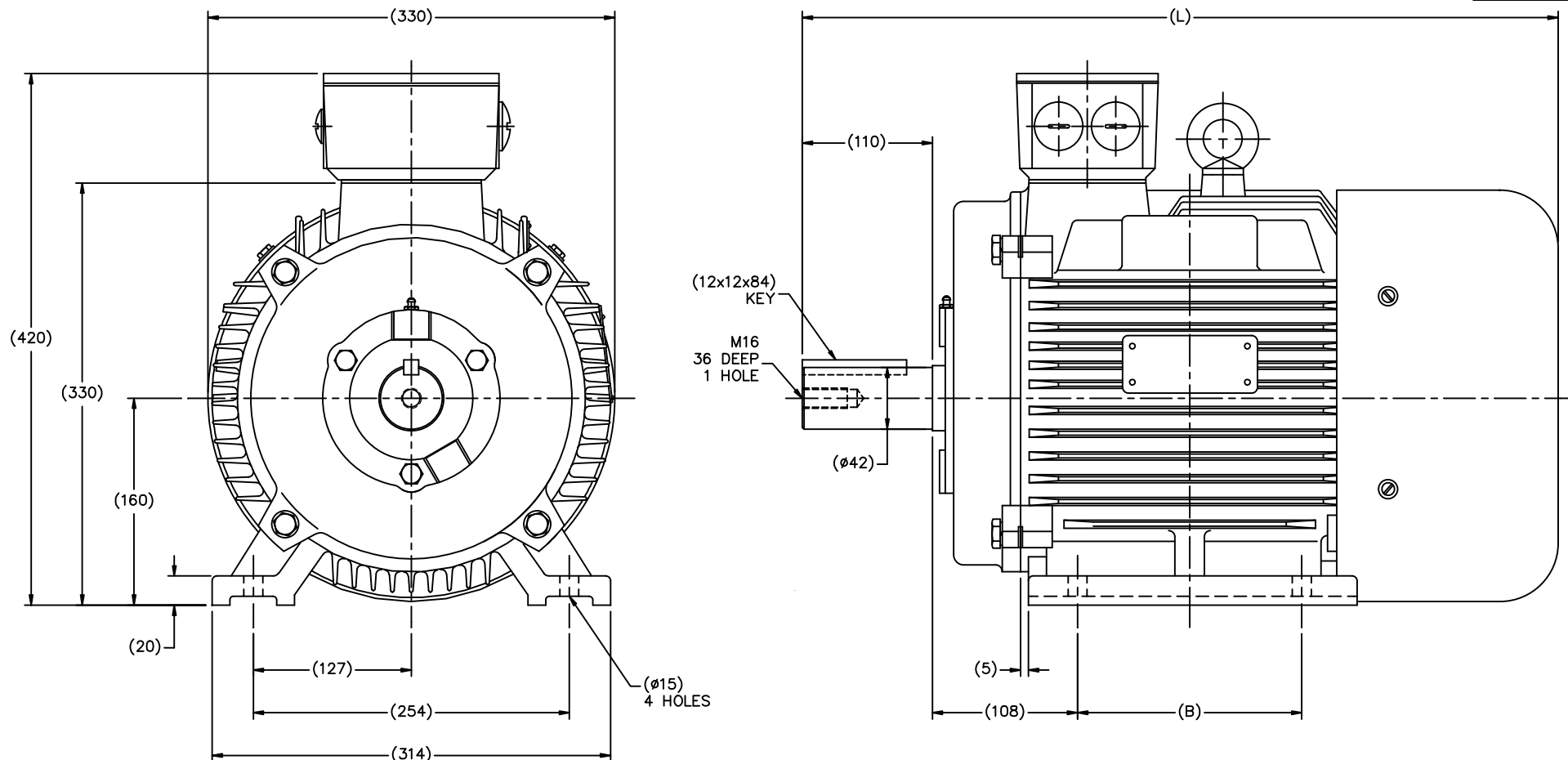


Nameplate Specifications

Phase	3	Output HP	15 & 10 Hp
Output KW	11.2 & 7.5 kW	Voltage	230/460 & 200/400 V
Speed	3545 & 2960 rpm	Service Factor	1.15 & 1.15
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	91 & 91 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	35/17.5 & 27/13.5 A	Power Factor	88.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	Recognized	CSA	Y
CE	Y	IP Code	54
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	.4 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	23.62 in
Shaft Diameter	1.625 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 10:1
Outline Drawing	B-SS622239	Connection Drawing	004172.01



DF160M1-2R	193315.60	600	210
DF160M2-2R	193318.60	600	210
DF160M-4R	193316.60	600	210
DF160L-2R	193321.60	645	254
DF160L-4R	193319.60	645	254
DF160M-6R	193314.60	600	210
FRAME	PART #	L	B

(MAY NOT BE DRAWN TO SCALE)

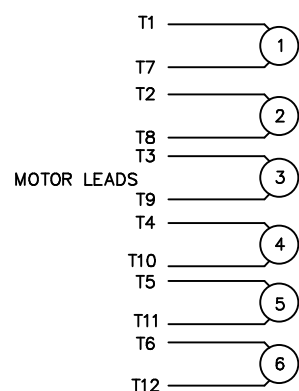
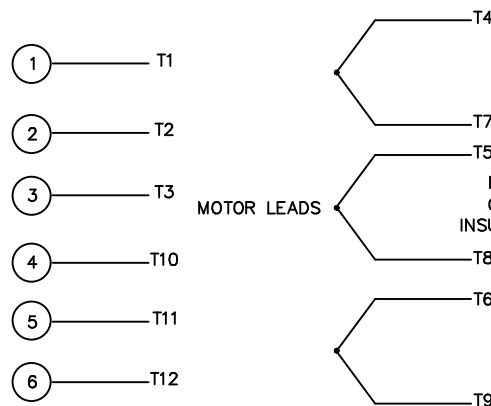
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			TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION	DRAWN MSG 11-17-2010	
			DEC.	METRIC		CHK	MJS 11-18-2010
			.X	±2.5	TITLE OUTLINE - IEC PREMIUM DF160-R (II)	APPD	SB 11-18-2010
			.XX	±.76		SCALE	5=16
			.XXX	±.127		REF	
			.XXXX	±.0127	MAT'L	FMF	HEBEI
NO.	REVISION	BY & DATE	CHK	ANG	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	11-18-2010	CAD FILE ss622239	SIZE	DRAWING NO. PAGE OF REV.
			DIST			B	SS622239

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

LOW VOLTAGE CONNECTION

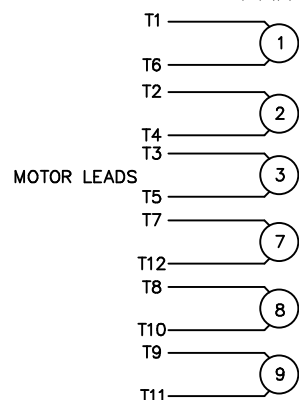
HIGH VOLTAGE CONNECTION

WYE-DELTA
STARTER
TERMINALSWYE-DELTA
STARTER
TERMINALS

MOTOR LEADS

MOTOR LEADS
CONNECT AND
INSULATE SEPARATELY

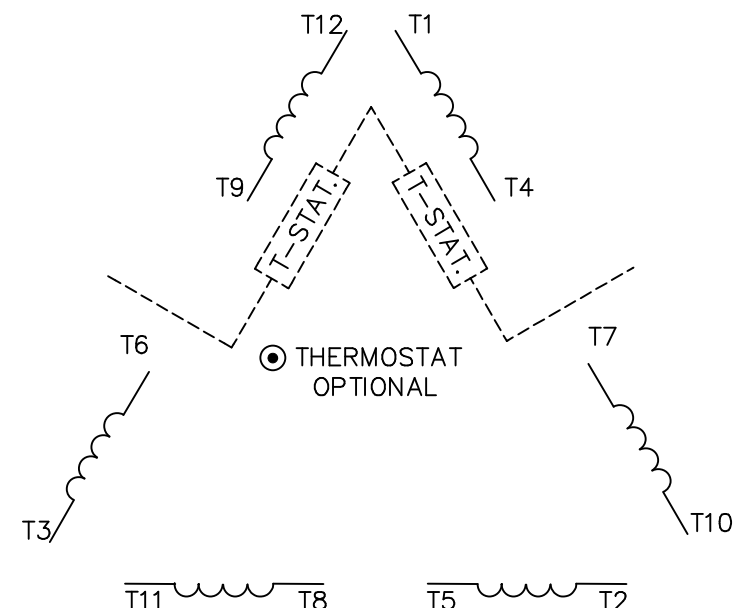
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR
PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLYPART WINDING
STARTER
TERMINALS

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 #: 193315.60

CONN. DIAGRAM: 004172.01

OUTLINE: B-SS622239

WINDING #: T12902027 3

MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
15&10	11.2&7.50	3600	3545&2960	160M	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	230/460&200/400	35/17.5&27/13.5	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	91&91	3/4 LOAD EFF:	91	1/2 LOAD EFF:	90.2	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	88.5&86.5	3/4 LOAD PF:	87.5	1/2 LOAD PF:	83	90.2	SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
22.2 LB-FT	213 / 106.5	47.5 LB-FT 213 %	56.5 LB-FT 254 %	44

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
70 dBA	80 dBA	- LB-FT^2	- LB-FT^2	20 SEC.	2	265 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE - LEESON (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL						
6309	6209	POLYREX EM	STANDARD IEC	NONE	NONE	AINI 1045 (C-240)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	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

193315.60



Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.0	6.0	9.5	13.0	17.5	20.5	22.0	107	
Torque (ft-lb)	0.00	5.5	11.0	16.5	22.2	25.5	28.0	47.5	
RPM	3600	3585	3575	3560	3545	3,535	3530	0	
Efficiency (%)		85.5	90.2	91.0	91.0	90.2	90.2		
P.F. (%)	13.0	68.5	83.0	87.5	88.5	88.5	88.5	44.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																																																																																																																													
Speed (RPM)	0	1000	3345	3545	3600	Information Block																																																																																																																												
Current (Amps)	107	100	59.0	17.5	4.0	HP	15.0																																																																																																																											
Torque (ft-lb)	47.5	38.5	56.5	22.2	0.00	Sync. RPM	3600																																																																																																																											
<div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div><div>EFFICIENCY (%)</div><div>P.F. (%)</div><div>CURRENT (AMPS)</div></div> <table><tr><td>Frame</td><td colspan="4">160</td></tr><tr><td>Enclosure</td><td colspan="4">TEFC</td></tr><tr><td>Construction</td><td colspan="4">TFC</td></tr><tr><td>Voltage</td><td colspan="2">230/460#200/400</td><td colspan="2">V</td></tr><tr><td>Frequency</td><td colspan="2">60</td><td colspan="2">Hz</td></tr><tr><td>Design</td><td colspan="4">B</td></tr><tr><td>LR Code letter</td><td colspan="4">G</td></tr><tr><td>Service Factor</td><td colspan="4">1.15</td></tr><tr><td>Temp Rise @ FL</td><td colspan="2">44</td><td colspan="2">°C</td></tr><tr><td>Duty</td><td colspan="4">CONT</td></tr><tr><td>Ambient</td><td colspan="2">40</td><td colspan="2">°C</td></tr><tr><td>Elevation</td><td colspan="2">1,000</td><td colspan="2">feet</td></tr><tr><td>Rotor/Shaft wk²</td><td colspan="2">0.00</td><td colspan="2">Lb-Ft²</td></tr><tr><td>Ref Wdg</td><td>T12902027</td><td colspan="3">NONE</td></tr><tr><td>Sound Pressure @ 1M</td><td colspan="2">70</td><td colspan="2">dBA</td></tr><tr><td>VFD Rating</td><td colspan="4">CONSTANT 10:1</td></tr><tr><td>Outline Dwg</td><td colspan="4">B-SS622239</td></tr><tr><td>Conn. Diag</td><td colspan="4">004172.01</td></tr><tr><td colspan="5">Additional Specifications:</td></tr><tr><td colspan="5">0</td></tr><tr><td colspan="5">0</td></tr><tr><td colspan="5">EQUIV CKT (OHMS / PHASE)</td></tr><tr><td>R1</td><td>R2</td><td>X1</td><td>X2</td><td>Xm</td></tr><tr><td>0.0000</td><td>0.0000</td><td>0.0000</td><td>0.0000</td><td>0.0000</td></tr></table>						Frame	160				Enclosure	TEFC				Construction	TFC				Voltage	230/460#200/400		V		Frequency	60		Hz		Design	B				LR Code letter	G				Service Factor	1.15				Temp Rise @ FL	44		°C		Duty	CONT				Ambient	40		°C		Elevation	1,000		feet		Rotor/Shaft wk²	0.00		Lb-Ft²		Ref Wdg	T12902027	NONE			Sound Pressure @ 1M	70		dBA		VFD Rating	CONSTANT 10:1				Outline Dwg	B-SS622239				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	Enclosure	TEFC			
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Speed - Torque Curve

