PRODUCT INFORMATION PACKET

Model No: 193352.60
Catalog No: 193352.60
LEESON® PASSPORT 20 HP General Purpose, 3 phase, 1800 RPM, 230/460 V, 160L Frame, TEFC

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Nameplate Specifications

Phase	3	Output HP	20 & 15 Hp
Output KW	14.9 & 11.2 kW	Voltage	230/460 & 190/380 V
Speed	1770 & 1475 rpm	Service Factor	1.15 & 1.15
Frame	160L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	50/25 & 43.5/21.7 A	Power Factor	82
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	55
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	.322 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	25.39 in
Shaft Diameter	1.625 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3		
Outline Drawing	SS622272	Connection Drawing	00417201

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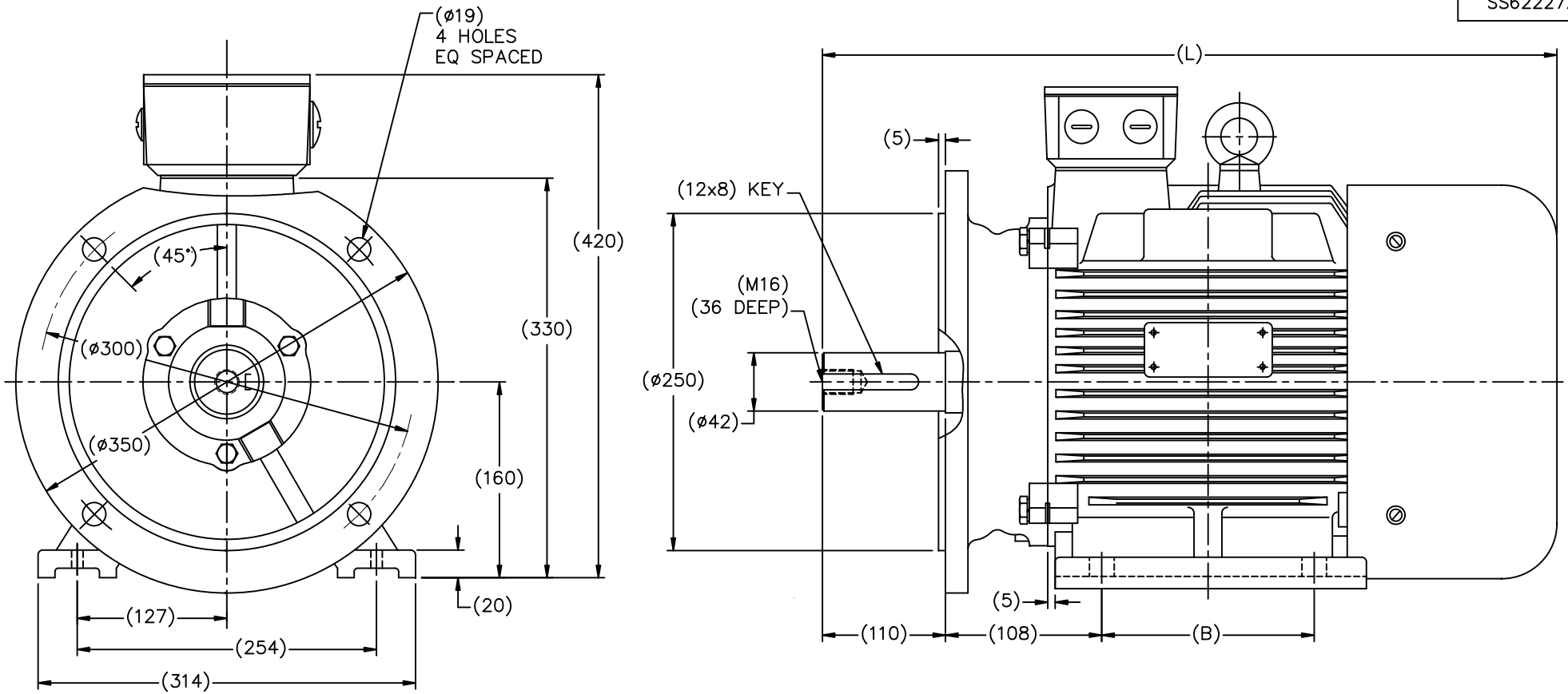

Cat. No	MODEL	B	L
193348.60	DF160M1D-2R	210	600
193351.60	DF160M2D-2R	210	600
193349.60	DF160MD-4R	210	600
193354.60	DF160LD-2R	254	645
193352.60	DF160LD-4R	254	645
193347.60	DF160MD-6R	210	600

(MAY NOT BE DRAWN TO SCALE)

(DIMENSIONS ARE IN MILLIMETERS)

NO.	REVISION	BY & DATE	CHK

TOLERANCES UNLESS SPECIFIED

DEC.	METRIC
.X	±2.5
.XX	±.76
.XXX	±.127
.XXXX	±.0127
ANG	±7'30"

REGAL-BELOIT CORPORATION

DRAWN HLB 12-10-2010
CHK DJK 12-17-2010
APPD SB 12-18-2010
SCALE 1=18
REF
FMF HEBEI
PREV

TITLE OUTLINE
DF160MD,LD-2,4,6R

MAT'L.
FINISH
CAD FILE SS622272
RFP 12-18-2010
DIST

SIZE B
DRAWING NO. SS622272
PAGE OF
REV.

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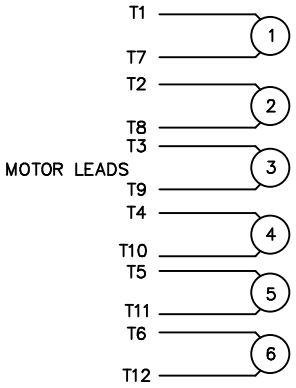
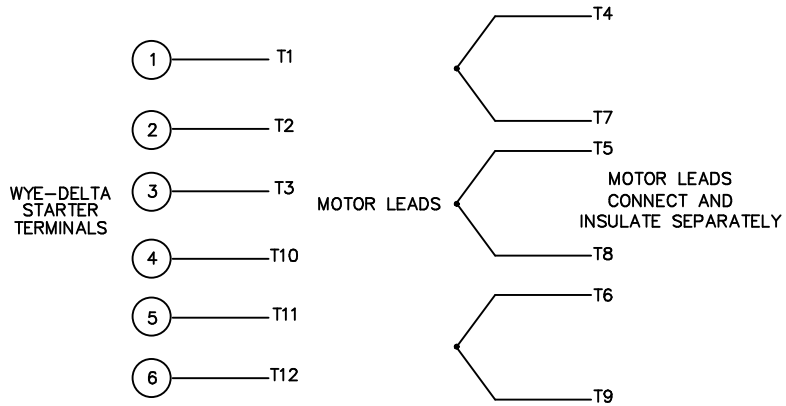
WYE – DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

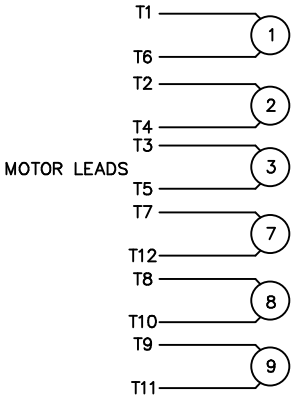


HIGH VOLTAGE CONNECTION



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

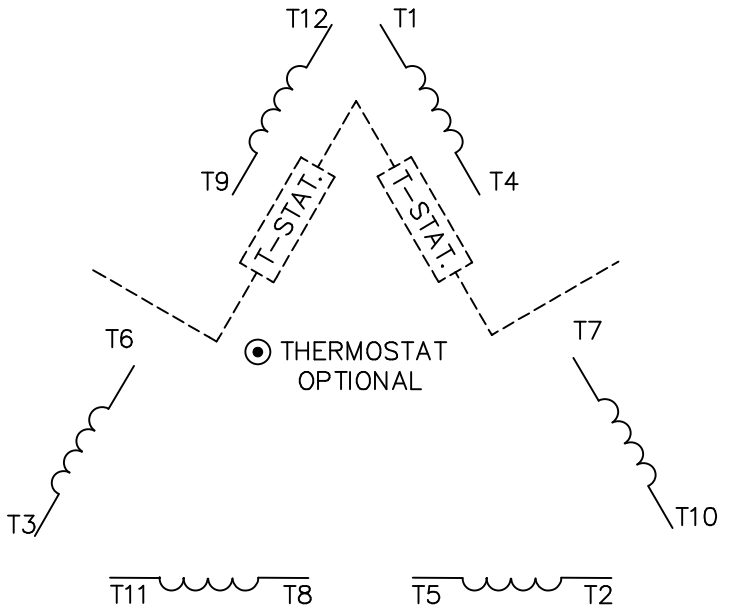
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



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	

NO.	REVISION	BY & DATE	CHK
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	
02	ADDED T–STAT. NOTES PER ELECTRICAL	KMM 06/02/98	
01	REDRAWN TO CAD	DBT 06/02/97	

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.01
.XXX	±.005
.XXXX	±.0005
ANG	±1/2°

LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES

TITLE DELTA – WYE CONNECTION DIAGRAM

MAT'L.

FINISH

CAD FILE 00417201

RFP

DIST

DRAWN	WLW 09/08/77
CHK	RPB 09/12/77
APPD	JCW 09/12/77
SCALE	1=1
REF	
FMF	
PREV	

SIZE A | DRAWING NO. 004172–01 | REV. 03

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Data Sheet

Date: 1/30/2018

LEESON

193352.60

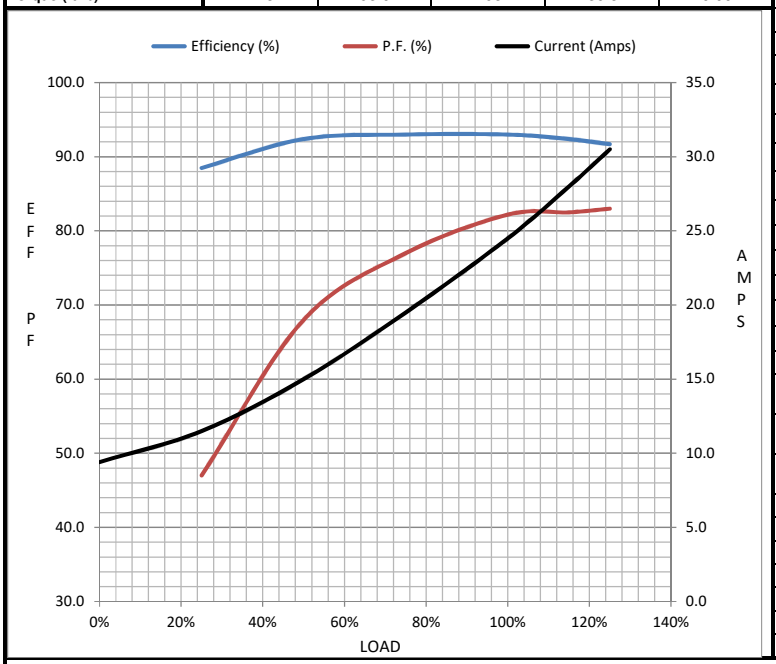
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	9.4	11.5	15.0	19.5	24.5	28.0	30.5	145	
Torque (ft-lb)	0.00	15.0	30.0	45.0	59.5	70.0	75.0	115	
RPM	1800	1795	1782	1778	1775	1,768	1765	0	
Efficiency (%)		88.5	92.4	93.0	93.0	92.4	91.7		
P.F. (%)	5.5	47.0	68.0	77.0	82.2	82.5	83.0	37.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1775	1800
Current (Amps)	145	135	98.0	24.5	9.4
Torque (ft-lb)	115	95.0	195	59.5	0.00



Information Block

HP	20.0	
Sync. RPM	1800	
Frame	256	
Enclosure	TEFC	
Construction	TFC	
Voltage	230/460#190/380	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	43	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	2.97	Lb-Ft²
Ref Wdg	T12904020 NONE	
Sound Pressure @ 1M	75	dBA
VFD Rating	CONSTANT 2:1	
Outline Dwg	SS622272	
Conn. Diag	00417201	

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