

PRODUCT INFORMATION PACKET

Model No: LM21180

Catalog No: LM21180

Speed Ratio Motors, Drip Proof, 40 HP, 3 Ph, 60 Hz, 230/460 V, 1785 RPM, 324T Frame



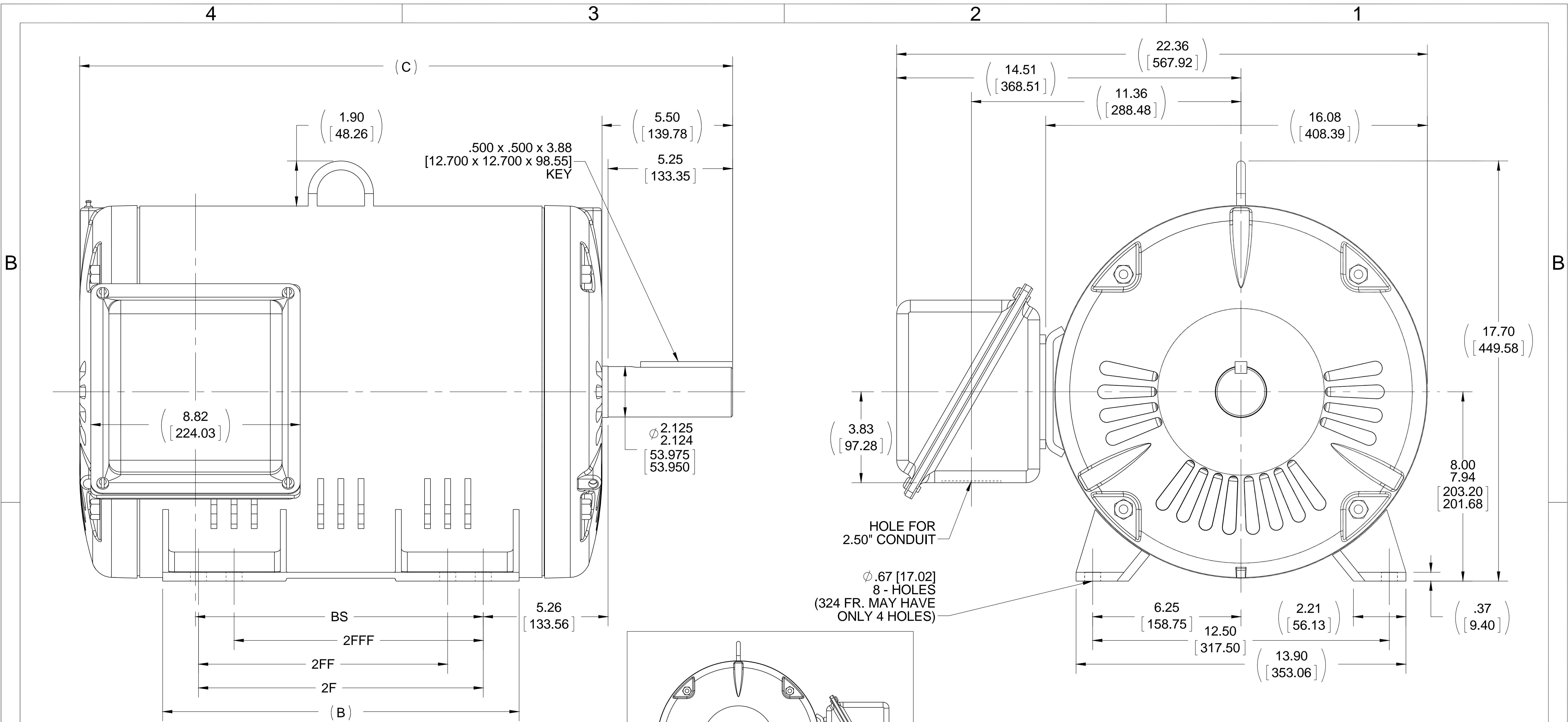
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Nameplate Specifications

Output HP	40 Hp	Output KW	29.8 kW
Frequency	60 Hz	Voltage	230/460 V
Current	106.0/53.0 A	Speed	1785 rpm
Service Factor	1	Phase	3
Efficiency	93 %	Power Factor	76
Duty	Continuous	Insulation Class	F
Design Code	BC	KVA Code	G
Frame	324T	Enclosure	Drip Proof
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	311	Opp Drive End Bearing Size	309
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	.176 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Overall Length	25.82 in
Frame Length	15.07 in	Shaft Diameter	2.125 in
Shaft Extension	5.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2:1		
Outline Drawing	XG2D1SS1-1507	Connection Drawing	A-EE7308BZ-LN



- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	2FFF	BS
1507	324T	13.52 [343.41]	26.01 [660.65]	10.50 [266.70]	---	---	10.63 [270.00]
1657	326T	15.02 [381.51]	27.51 [698.75]	12.00 [304.80]	10.50 [266.70]	10.50 [266.70]	12.13 [308.10]

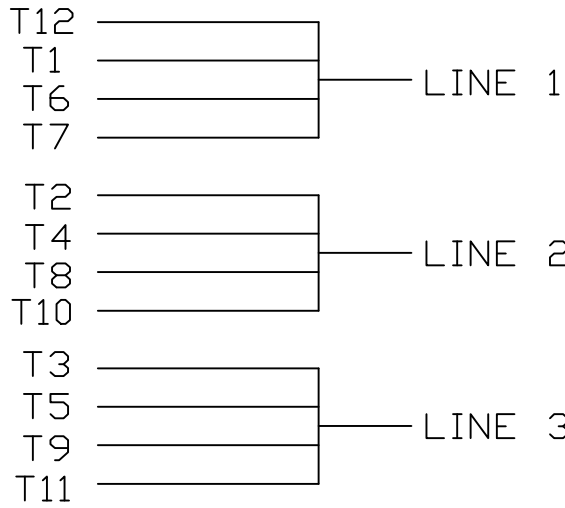
DRAWING REVISION E	REVISION BY T. VUE	DATE 09-22-2016
ECO ECO-0109505	APPROVED BY T. BROWN	DATE 09-22-2016
ECO DESCRIPTION MU124402 / NMR-0106907		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381]			
CORNER FILLETS: .02 [0.51]			
MACHINED SURFACES: 200 INCH/mm 5.1			
mm SHOWN IN [BRACKETS]			

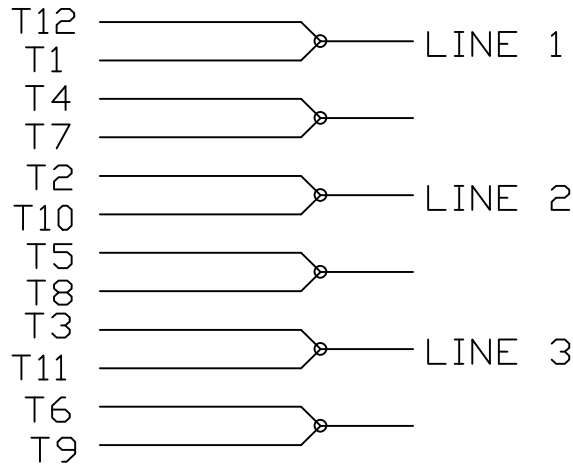
DRAWN BY TJB
DATE 08-09-2001
APPROVED BY HNH
DATE 08-29-2001
REFERENCE
THIRD ANGLE PROJECTION

REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 320T FR. - ODP - UE	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER XG2D1SS1
SHEET 1 OF 1	

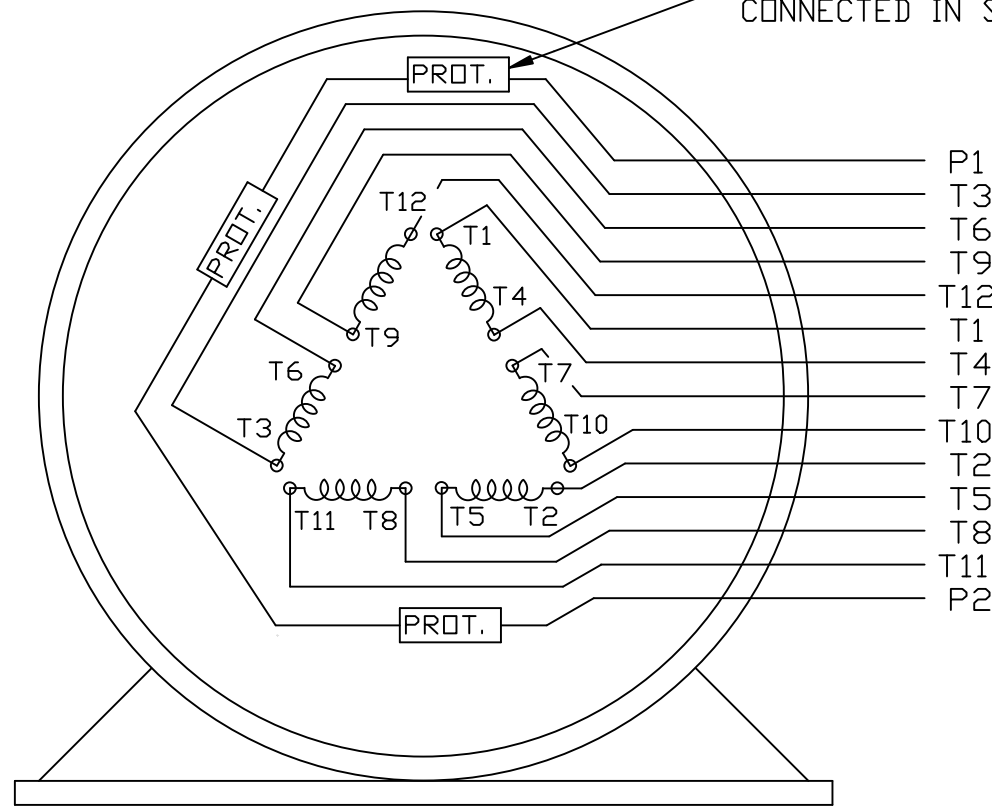
LOW VOLTAGE



HIGH VOLTAGE



THERMO - PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

					✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± XXX± XXXX± ANGLES±			
2	08/17/2011	REMOVED NOTE '12 LEADS SINGLE VOLTAGE'	MU103768		RFH	MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED		DRAWN BY KL
1	12-11-2000	NEW DRAWING	MU34925	KL	FINISH		CHKD BY DJK	12-11-2000
					MATERIAL		APPD BY DJK	12-11-2000
REV	DATE	CHANGE		NAME	PART NAME EXTERNAL CONNECTION DIAGRAM 3 PHASE - 2/1 DELTA - 12 LEADS			DRWG NO A- EE7308BZ-LN
					PURCHASED	CADD FILE NO.	EE7308BZ-LN	



CERTIFICATION DATA SHEET

**2100 WASHINGTON ST.
GRAFTON, WI
PH. 262-277-8810**

CONN. DIAGRAM: A-EE7308BZ-LN

OUTLINE: XG2D1SS1-1507

CATALOG # : LM21180

WINDING #: C3244033 R1 1

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40	29.8	1800	1785	324T	DP	G	BC

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	106/53	Y START D RUN OR INV	CONTINUOUS	F1	1.0	40

FULL LOAD EFF:	93	3/4 LOAD EFF:	93	1/2 LOAD EFF:	91.7	GTD. EFF	91.7	ELEC. TYPE	SQ CAGE INV RATED
FULL LOAD PF:	76	3/4 LOAD PF:	70	1/2 LOAD PF:	59				

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
118 LB-FT	580 / 290	260 LB-FT 220 %	280 LB-FT 237 %	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	0 LB-FT^2	- LB-FT^2	- SEC.	-	- LBS.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	GRAY - LINCOLN

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ROLLED STEEL
311	309						

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 2:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE FT-LB V NONE Hz

Data Sheet

Date: 1/18/2018

LM21180



Data @ **460 V**

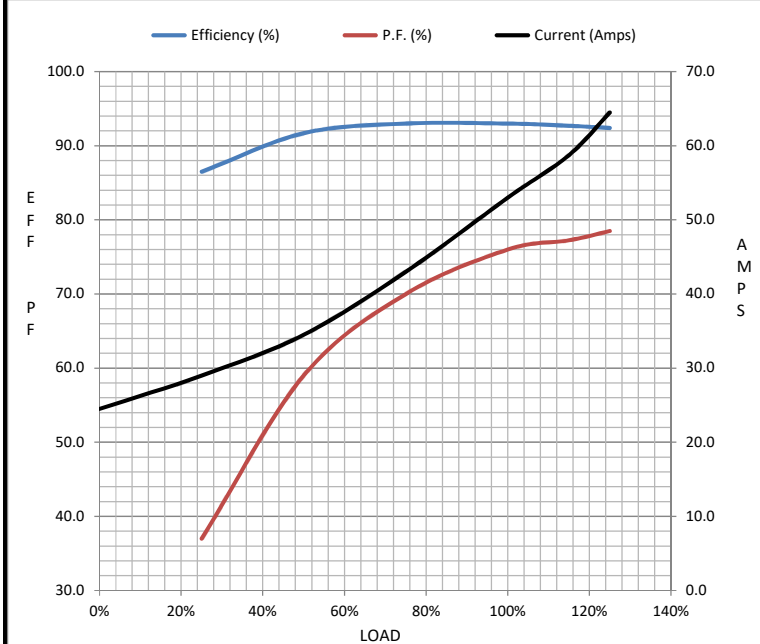
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	24.5	29.0	34.5	43.0	53.0	58.8	64.5	290
Torque (ft-lb)	0.00	29.0	58.5	88.0	118	133	148	260
RPM	1800	1795	1792	1788	1785	1.782	1778	0
Efficiency (%)		86.5	91.7	93.0	93.0	92.7	92.4	
P.F. (%)	5.0	37.0	59.0	70.0	76.0	77.3	78.5	38.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1715	1785	1800
Current (Amps)	290	260	170	53.0	24.5
Torque (ft-lb)	260	235	280	118	0.00

Information Block				
HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	DP			
Construction	TDR			
Voltage	230/460 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 wk ²	0.00 Lb-Ft ²			
Ref Wdg	C3244033 R1			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	XG2D1SS1-1507			
Conn. Diag	A-EE7308BZ-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1130	0.0500	0.5180	0.7940	10.7770



Speed - Torque Curve

