

PRODUCT INFORMATION PACKET



Model No: LM31463
Catalog No: LM31463
Encoder Motor, 7.50 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 215TC Frame, TENV



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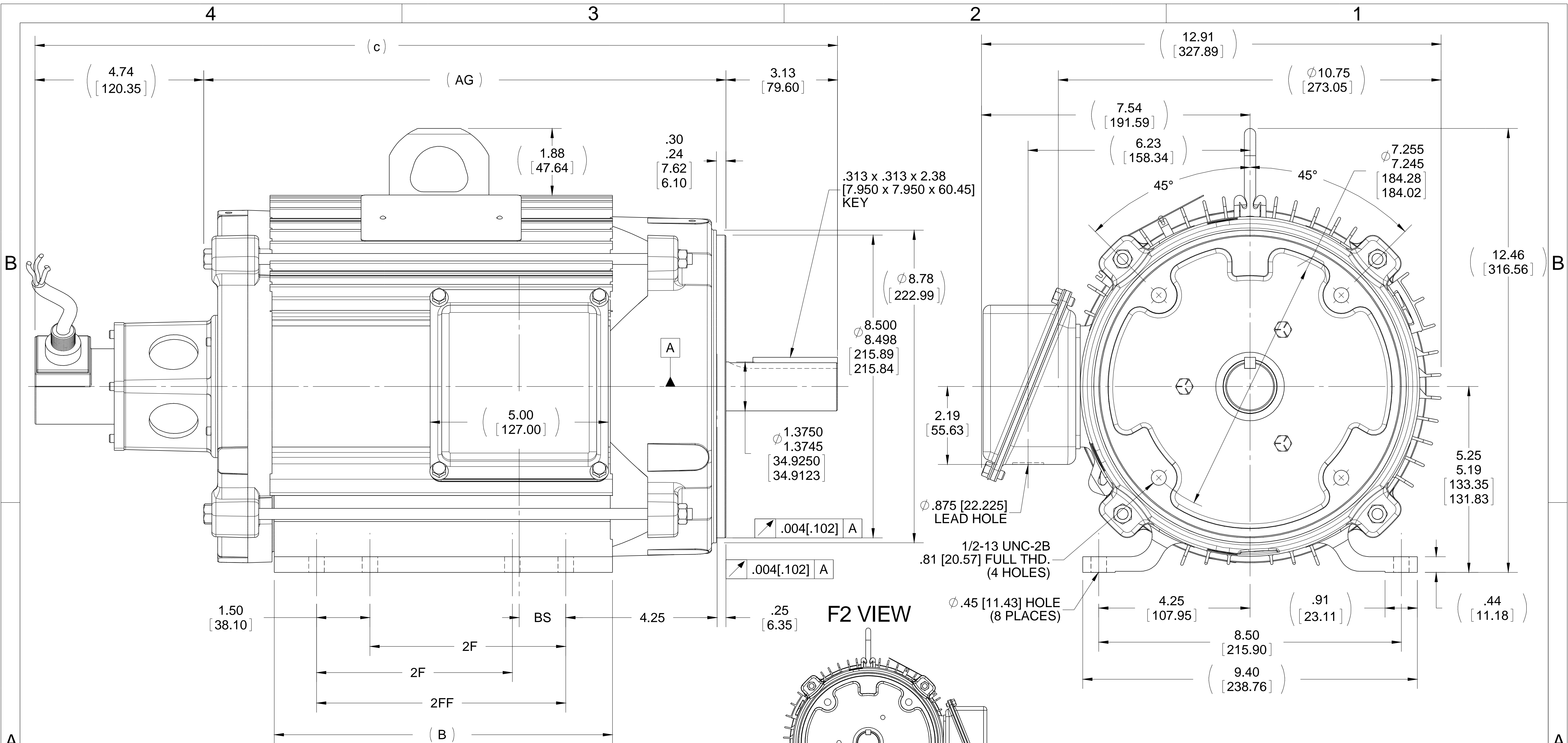


Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	230/460 V
Current	21.0/10.5 A	Speed	1765 rpm
Service Factor	1	Phase	3
Efficiency	90.2 %	Power Factor	76
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	L
Frame	215TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	208	Opp Drive End Bearing Size	206
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	1.02 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Aluminum
Shaft Type	T	Overall Length	22.54 in
Frame Length	9.50 in	Shaft Diameter	1.375 in
Shaft Extension	3.13 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 100:1		
Connection Drawing	EE7308T-LN	Outline Drawing	SS330210-950



- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
 4. DIMENSION IN [] DESIGNATE MILLIMETERS.

DASH	FRAME	B	C	AG	2F	2FF	BS
800	213TC	8.12 [206.25]	21.04 [534.42]	13.05 [331.47]	5.50 [139.70]	---	1.33 [33.78]
950	213/215TC	9.62 [244.35]	22.54 [572.52]	14.55 [369.57]	5.50 [139.70]	7.00 [177.80]	1.33 [33.78]

DRAWING REVISION C	REVISION BY JJB	DATE 05-26-2015
ECO ECO-0077351	APPROVED BY	DATE
ECO DESCRIPTION UPDATE TO CURRENT STANDARDS		
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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] X 45°
 CORNER FILLETS: R.02 [0.51]
 MACHINED SURFACES: 200 INCH mm 5.1
 mm SHOWN IN [BRACKETS]

DRAWN BY RWR
DATE 10-18-2006
APPROVED BY DR
DATE DR
REFERENCE 10-20-2006
THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.

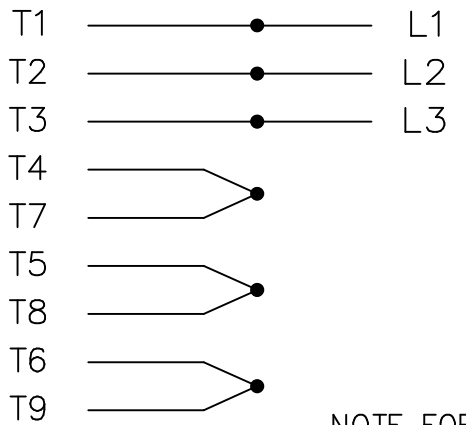
DESCRIPTION
OUTLINE
210TC FR. - TENV - W/ ENCODER

MATERIAL PROCESS/FINISH

SIZE **B** DRAWING NUMBER **SS330210** SHEET 1 OF 1

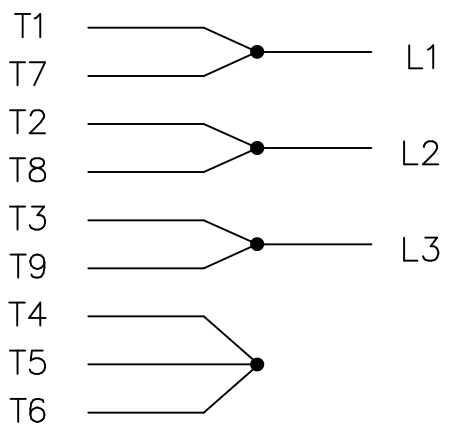
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

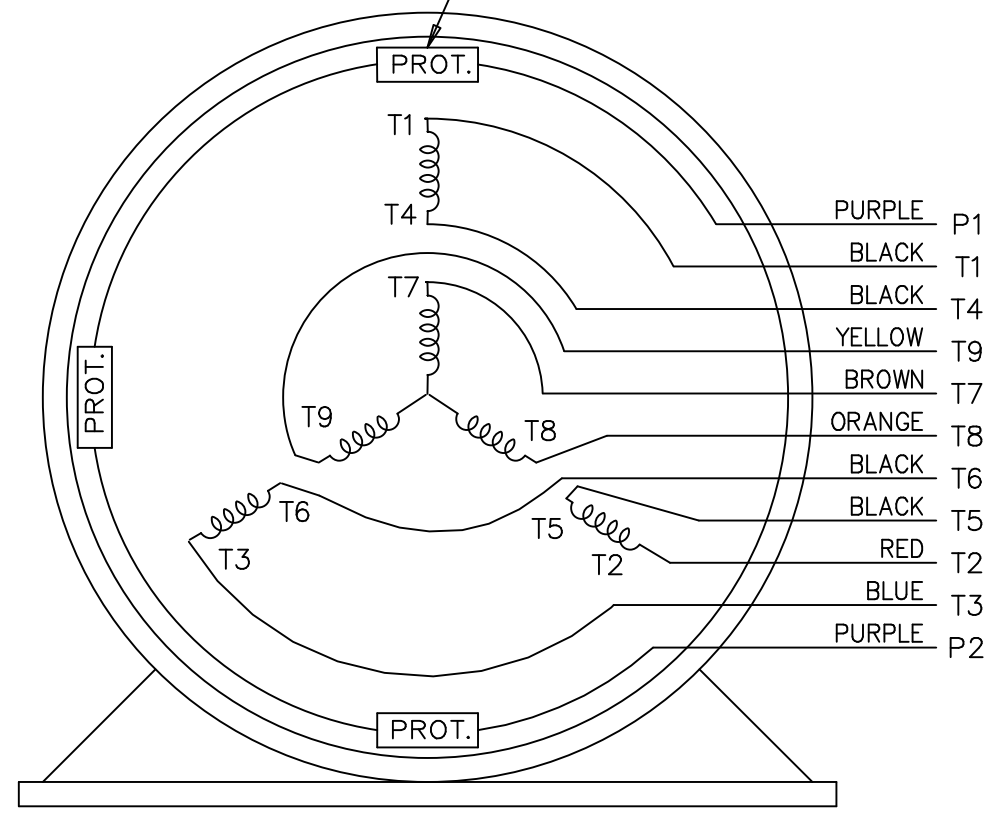


NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
 THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
 THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED			DRAWN BJK 07-16-2002					
				DEC.	INCHES		CHK DRS 07-18-2002					
				.X	±.1		APPD GK 07-18-2002					
				.XX	±.02		SCALE 1=1					
2	ADDED COLORS TO "T & P" LEADS	CN 40494	MSG 08-08-2006	ML	.XXX	±.005	TITLE CONNECTION DIAGRAM 3 PHASE - DUAL VOLTAGE MOTOR					
1	NEW DRAWING		BJK 07-18-2002	DRS	.XXXX	±.0005	MAT'L.					
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"		FINISH					
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 ee7308t_ln			SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST	LB			A	EE7308T-LN			2



CERTIFICATION DATA SHEET

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

CONN. DIAGRAM: A-EE7308T-LN

OUTLINE: B-SS330210-950

CATALOG # : LM31463

WINDING #: K2134177 1

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2	5.60	1800	1765	215TC	TENV	L	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	21/10.5	INVERTER ONLY	CONTINUOUS	F3	1.0	40

FULL LOAD EFF:	90.2	3/4 LOAD EFF:	89.5	1/2 LOAD EFF:	87.5	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	76	3/4 LOAD PF:	69	1/2 LOAD PF:	56.5	88.5		SQ CAGE INV DUTY	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
22.3 LB-FT	180 / 90	59.5 LB-FT 267 %	95.5 LB-FT 428 %	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.9 LB-FT^2	0 LB-FT^2	0 SEC.	0	150 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	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)	ALUMINUM
208	206						

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 100:1
INV. HP SPEED RANGE: NONE
ENCODER: REGAL SUPPLIED - REGAL MOUNT
DYNAPAR 625 LINCOLN
MS CONNECTOR 1024 PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

Data Sheet

Date: 1/18/2018

LM31463



Data @ **460 V**

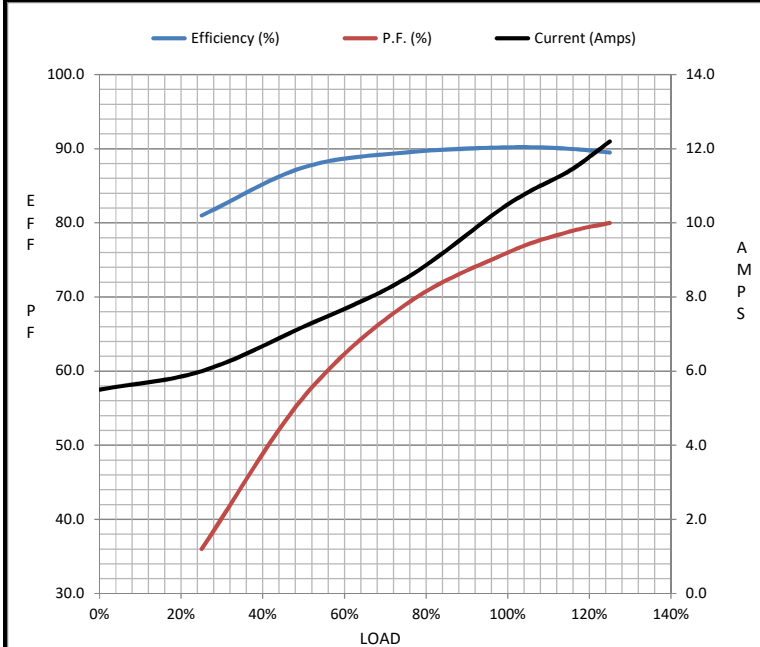
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	5.5	6.0	7.2	8.5	10.5	11.4	12.2	90.0
Torque (ft-lb)	0.00	5.5	11.0	16.8	22.3	25.7	28.0	59.5
RPM	1800	1792	1782	1772	1765	1.760	1755	0
Efficiency (%)		81.0	87.5	89.5	90.2	90.0	89.5	
P.F. (%)	6.5	36.0	56.5	69.0	76.0	78.8	80.0	41.5

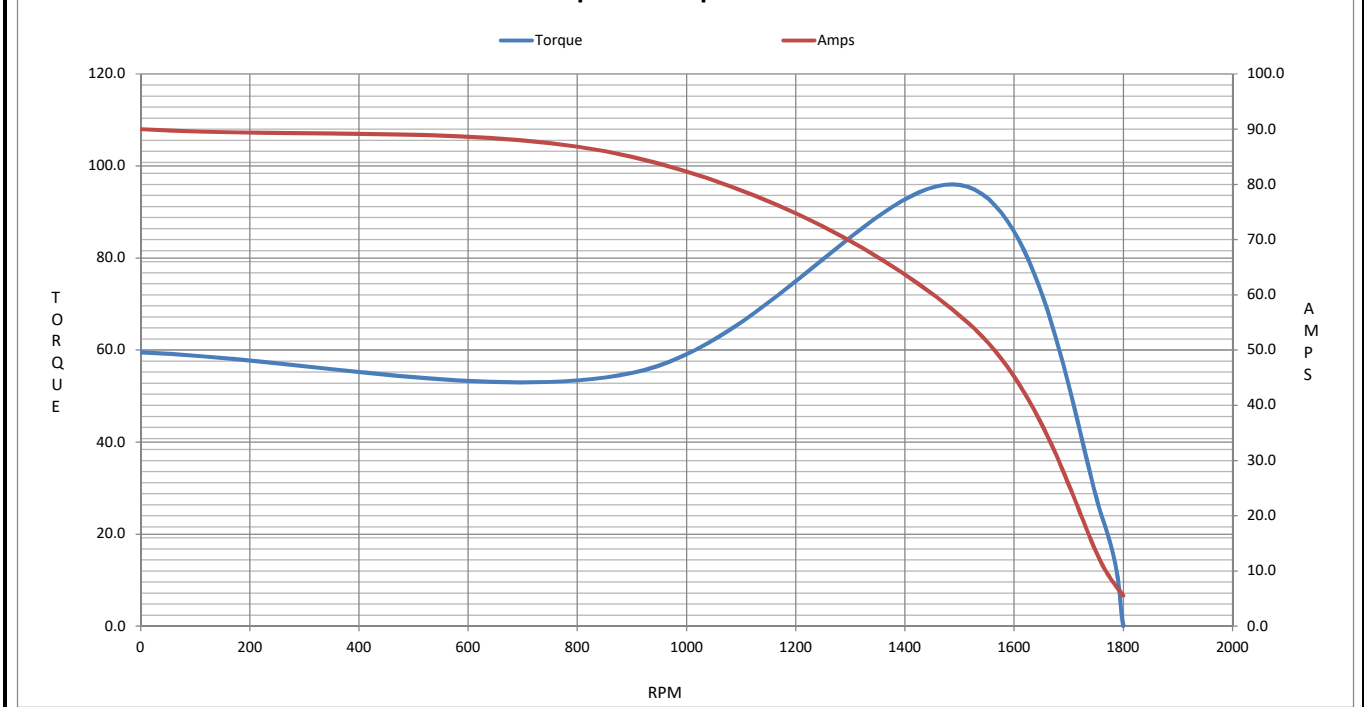
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1515	1765	1800
Current (Amps)	90.0	85.0	55.0	10.5	5.5
Torque (ft-lb)	59.5	55.0	95.5	22.3	0.00

Information Block				
HP	7.5			
Sync. RPM	1800			
Frame	213			
Enclosure	TENV			
Construction	TTL			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	L			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	0.90 Lb-Ft ²			
Ref Wdg	K2134177 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 100:1			
Outline Dwg	B-SS330210-950			
Conn. Diag	A-EE7308T-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.6990	0.5670	1.7650	2.2600	38.1780



Speed - Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : LM31463

(Model No. may contain prefix and/or suffix characters)

Catalog No : LM31463

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22