

# PRODUCT INFORMATION PACKET



Model No: LM28880  
Catalog No: LM28880  
20 HP Elevator Duty Motor, 3 phase, 1800 RPM, 230/460 V, 256T Frame, ODP  
Elevator Duty Motors



Regal and Leeson are trademarks of Regal Rexnord Corporation or one of its affiliated companies.  
©2021 Regal Rexnord Corporation, All Rights Reserved. MC017097E





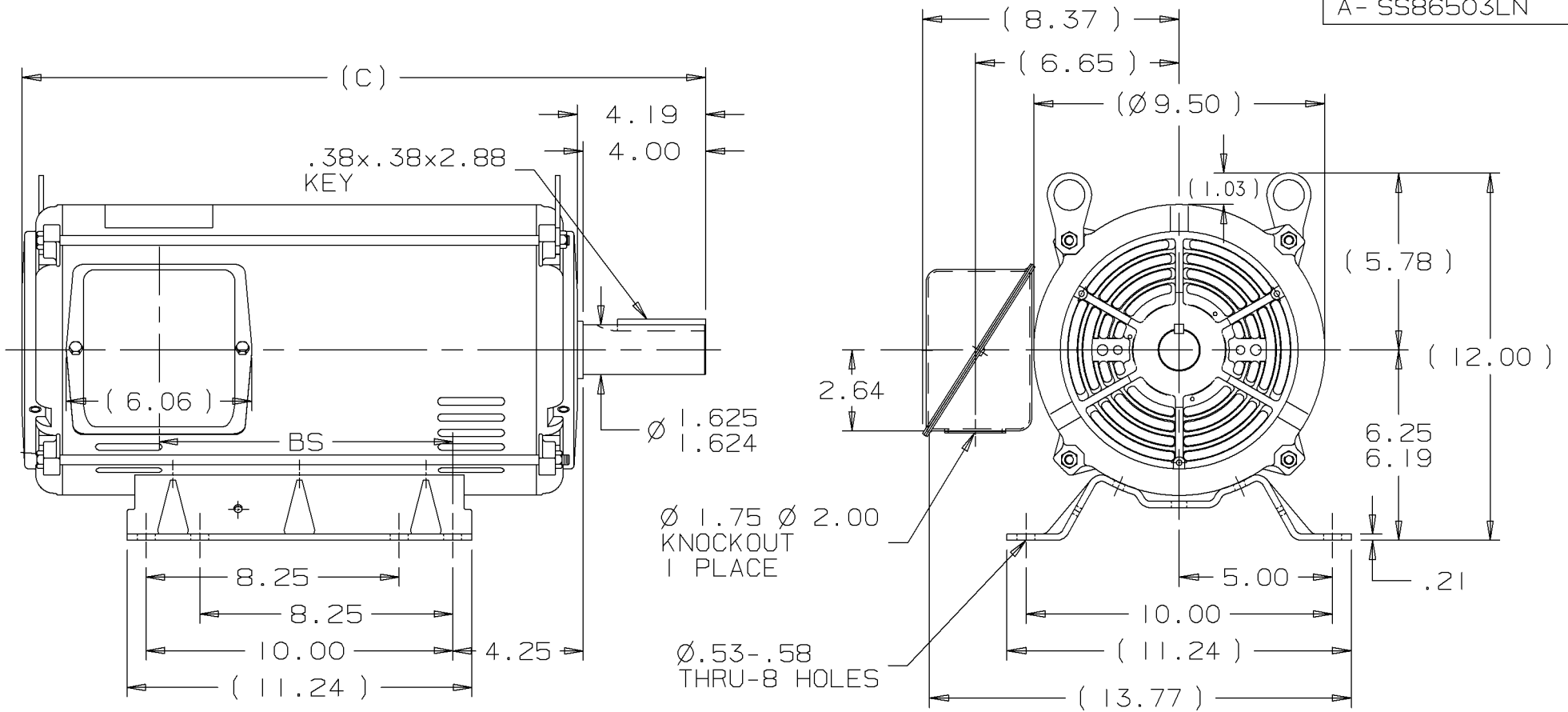
### Nameplate Specifications

Output HP	<b>20 Hp</b>	Output KW	<b>14.9 kW</b>
Frequency	<b>60/60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>52.0/26.0 A</b>	Speed	<b>1760 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>91 %</b>	Power Factor	<b>79.3</b>
Duty	<b>120/80 Starts/Hour</b>	Insulation Class	<b>F</b>
Design Code	<b>INV</b>	KVA Code	<b>F</b>
Frame	<b>256T</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>309</b>	Opp Drive End Bearing Size	<b>208</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>12</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Wye Start Delta Run</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.428 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>HORIZONTAL</b>	Drive End Bearing	<b>BALL</b>
Opp Drive End Bearing	<b>BALL</b>	Frame Material	<b>Rolled Steel</b>
Shaft Type	<b>T</b>	Overall Length	<b>22.32 in</b>
Frame Length	<b>15.45 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>4 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>EE7358-LN</b>	Outline Drawing	<b>SS86503LN-1545</b>

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:10/07/2021



DASH	FR.	C	BS	MOUNTING
1370	254T	20.57	7.68	F1 OR F2
1545	254T/256T	22.32	9.43	F1 OR F2

NOTES:

1. NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.
2. BOX CAN BE MOUNTED IN 90° STEPS.
3. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. (EXCEPT AS NOTED.)
4. F2 MOUNT -USES 2ND HOLE ON 1370 FRAME.

						UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7'30"	
2	01-31-2000	UPDATED CONDUIT BOX PER	CN 28427	TJB	MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED		DRAWN BY TRB 07-20-1999
					FINISH		CHKD BY ML 07-20-1999
1	07-20-1999	NEW DRAWING		TRB	MATERIAL		APPD BY GK 07-20-1999
REV	DATE	CHANGE		NAME	PART NAME OUTLINE		DRWG NO
					250 FR. - BB - DR.PR.		A-SS86503LN



ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--

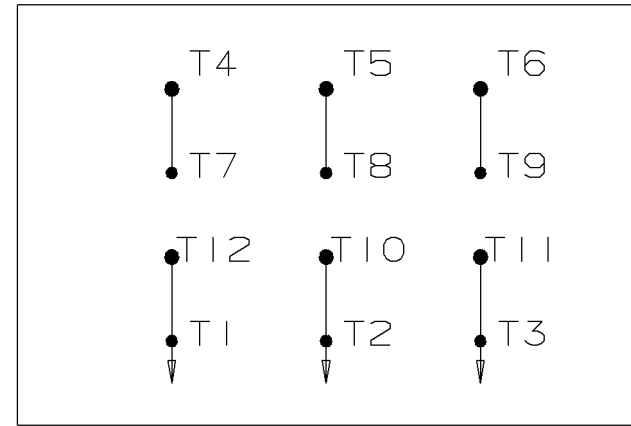
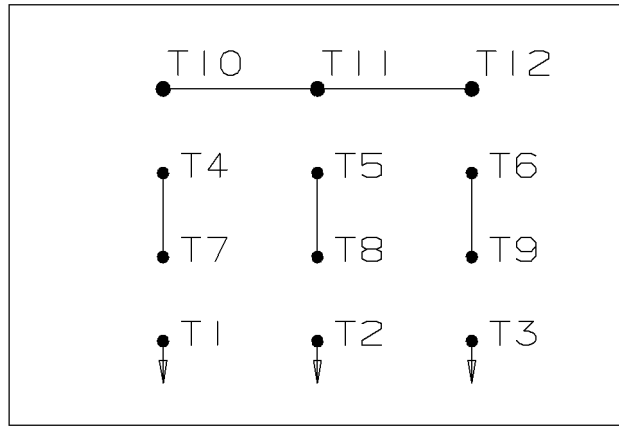
STACK:

/RS  
-dictionary-  
/Pscript\_WinNT\_Compat  
-dictionary-

WYE START

HIGH VOLTAGE

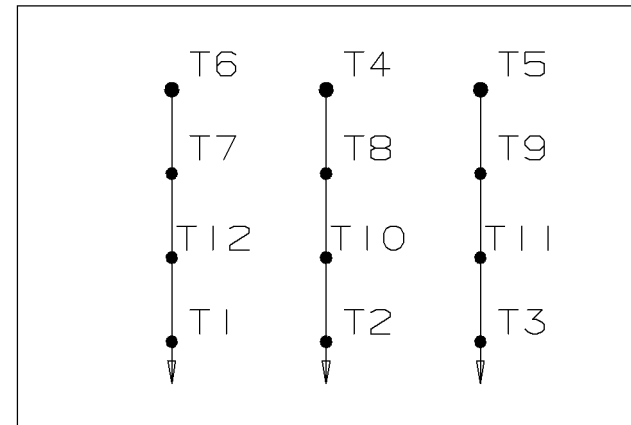
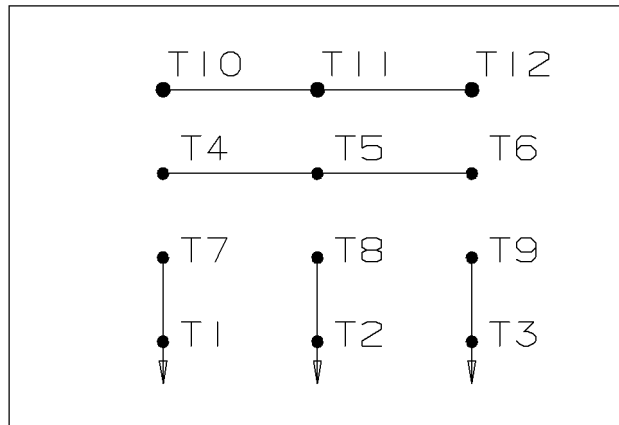
DELTA RUN



WYE START

LOW VOLTAGE

DELTA RUN



4/2 CKTY Δ

					<input checked="" type="checkbox"/> UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± .02    XXX± .005    XXXX± .0005    ANGLES± 7'30"		
						MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED	DRAWN BY DRS
					FINISH	CHKD BY ML	12-07-1999
					MATERIAL	APPD BY TB	12-07-1999
REV	DATE	CHANGE	NAME	PART NAME CONNECTION DIAGRAM			DRWG NO A- EE7358-LN

PURCHASED	CADD FILE NO.	EE7358-LN
-----------	---------------	-----------



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

**CERTIFICATION DATA SHEET**

**CONN. DIAGRAM:** A-EE7358-LN  
**OUTLINE:** A-SS86503LN-1545  
**WINDING #:** K2154280 R5 13

CATALOG : LM28880

**MOUNTING:** F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20&25	14.9&18.7	1800	1760&1760	256T	DP	F	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/60	230/460&230/460	52/26&64/32	WYE START DELTA RUN	120/80 STARTS/HOUR	F3	1.0/1.0	40

FULL LOAD EFF:	91&90.2	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	90.2	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	79.3&81.5	3/4 LOAD PF:	74	1/2 LOAD PF:	63	89.5		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
59.5 LB-FT	320 / 160	145 LB-FT 244 %	175 LB-FT 294 %	0

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
70 dBA	80 dBA	1.7 LB-FT^2	- LB-FT^2	- SEC.	-	185 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
309	208						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

\*  
N  
O  
T  
E  
S

<b>INVERTER TORQUE:</b> NONE
<b>INV. HP SPEED RANGE:</b> NONE
<b>ENCODER:</b> NONE
NONE NONE
NONE NONE PPR
<b>BRAKE:</b> NONE NONE
NONE P/N NONE
NONE NONE
FT-LB V NONE Hz

Data Sheet

Date: 1/31/2018

LM28880



Data @ 460 V

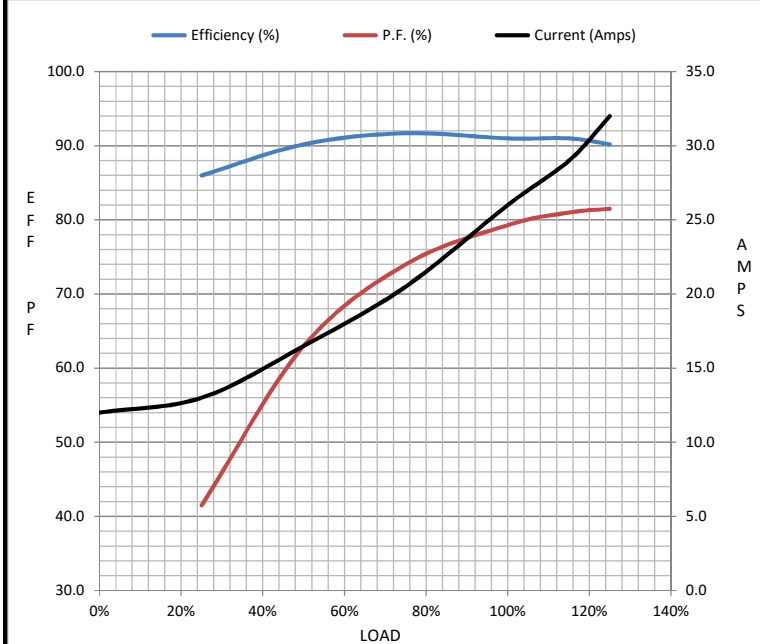
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	12.0	13.0	16.5	20.5	26.0	29.0	32.0	160
Torque (ft-lb)	0.00	15.0	29.5	44.5	59.5	68.5	75.0	145
RPM	1800	1790	1785	1770	1760	1755	1750	0
Efficiency (%)		86.0	90.2	91.7	91.0	91.0	90.2	
P.F. (%)	5.5	41.5	63.0	74.0	79.3	81.0	81.5	43.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1760	1800
Current (Amps)	160	135	100	26.0	12.0
Torque (ft-lb)	145	140	175	59.5	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	DP			
Construction	TDX			
Voltage	230/460#230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	0 °C			
Duty	60 MIN			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	1.70 Lb-Ft <sup>2</sup>			
Ref Wdg	K2154280 R5			
Sound Pressure @ 1M	70 dBA			
VFD Rating	NONE			
Outline Dwg	A-SS86503LN-1545			
Conn. Diag	A-EE7358-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.9410	0.8260	3.2500	4.7710	67.3080



Speed - Torque Curve

