

**BALDOR® • RELIANCE™**

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# Customer information packet

## EM31115-G

1HP, 3500RPM, 3PH, 60HZ, 56, 3512M, OPEN, F1, N

Class - None

Division - Not Applicable

## Specifications

Enclosure	OPEN
Frame	56
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UR CSA
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	1.450 A @ 460.0 V 2.900 A @ 230.0 V 3.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	80.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

## Part detail

Revision	L
Type	AC
Mech. spec.	35E2520
Base	
Status	PRD/A
Elec. spec.	35WGP987
Layout	35LYE2520
Eff. date	06-11-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	08-16-2016

High Voltage Full Load Amps	1.5 a
Insulation Class	H
Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3512M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.07 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3500 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

**Winding Thermal 2**

**None**

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**Nameplate**

**NP3553LUA**

<b>CAT.NO.</b>	EM31115-G						
<b>SPEC.</b>	35E2520P987G1						
<b>HP</b>	1						
<b>VOLTS</b>	230/460						
<b>AMPS</b>	2.9/1.45						
<b>RPM</b>	3500						
<b>FRAME</b>	56		<b>HZ</b>	60		<b>PH</b>	3
<b>SF</b>	1.25	<b>CODE</b>	K	<b>DES</b>	B	<b>CLASS</b>	H
<b>NEMA NOM. EFF</b>	80	<b>PF</b>	80				
<b>RATING</b>	40C AMB-CONT						
<b>CC</b>							
<b>ENCL</b>	OPEN	<b>SN</b>					
<b>DE</b>	6205	<b>ODE</b>	6203				
<b>VPWM INVERTER READY</b>	SFA 3.4/1.7						
<b>CT30-60(2:1) VT3-60(20:1)</b>							
<b>USABLE AT</b>	50HZ 1HP 190/380V 3.4/1.9A						SF1.0

## Parts list

Part number	Description	Quantity
SA329027	SA 35E2520P987G1	1.000 ea
RA316957	RA 35E2520P987G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3209G00	MASTER ODE,203 BRG	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3210C00	MASTER DE,205 BRG,1.000SH,LCK BRG	1.000 ea
51XN1032A18	10-32 X 1 1/8 HX WS SL SR (ESKAY)	2.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1459	AEGIS SGR LABEL "AEGISLBL-100"	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN 5 GALLON	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 ea
NP3553LUA	ALUM SUPER-E VPWM INV READY UL CC NEMA P	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
LB1350	BAR CODE LABEL FOR YORK	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

**AC Induction Motor Performance Data**

Record # 58816

Typical performance - not guaranteed values

<b>Winding: 35WGP987-R007</b>		<b>Type: 3512M</b>		<b>Enclosure: OPEN</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	1	<b>Full Load Torque</b>	1.47 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	2.9/1.45	<b>Breakdown Torque</b>	5.93 LB-FT		
<b>R.P.M.</b>	3500	<b>Pull-up Torque</b>	2.27 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	3.82 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	K	<b>Starting Current</b>	10.5 A	
<b>Service Factor (S.F.)</b>		1.25	<b>No-load Current</b>	0.924 A	
<b>NEMA Nom. Eff.</b>	80 <b>Power Factor</b>	80	<b>Line-line Res. @ 25°C</b>	19.3 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	32°C	
<b>S.F. Amps</b>	3.4/1.7		<b>Temp. Rise @ S.F. Load</b>	39°C	
			<b>Locked-rotor Power Factor</b>	66	
			<b>Rotor inertia</b>	0.0332 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 1 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	38	57	71	79	84	88	86
<b>Efficiency</b>	61.6	73.9	77.9	78.6	78.8	77.6	79.6
<b>Speed</b>	3573	3548	3522	3492	3456	3418	3464
<b>Line amperes</b>	0.969	1.07	1.25	1.47	1.75	2.06	1.72

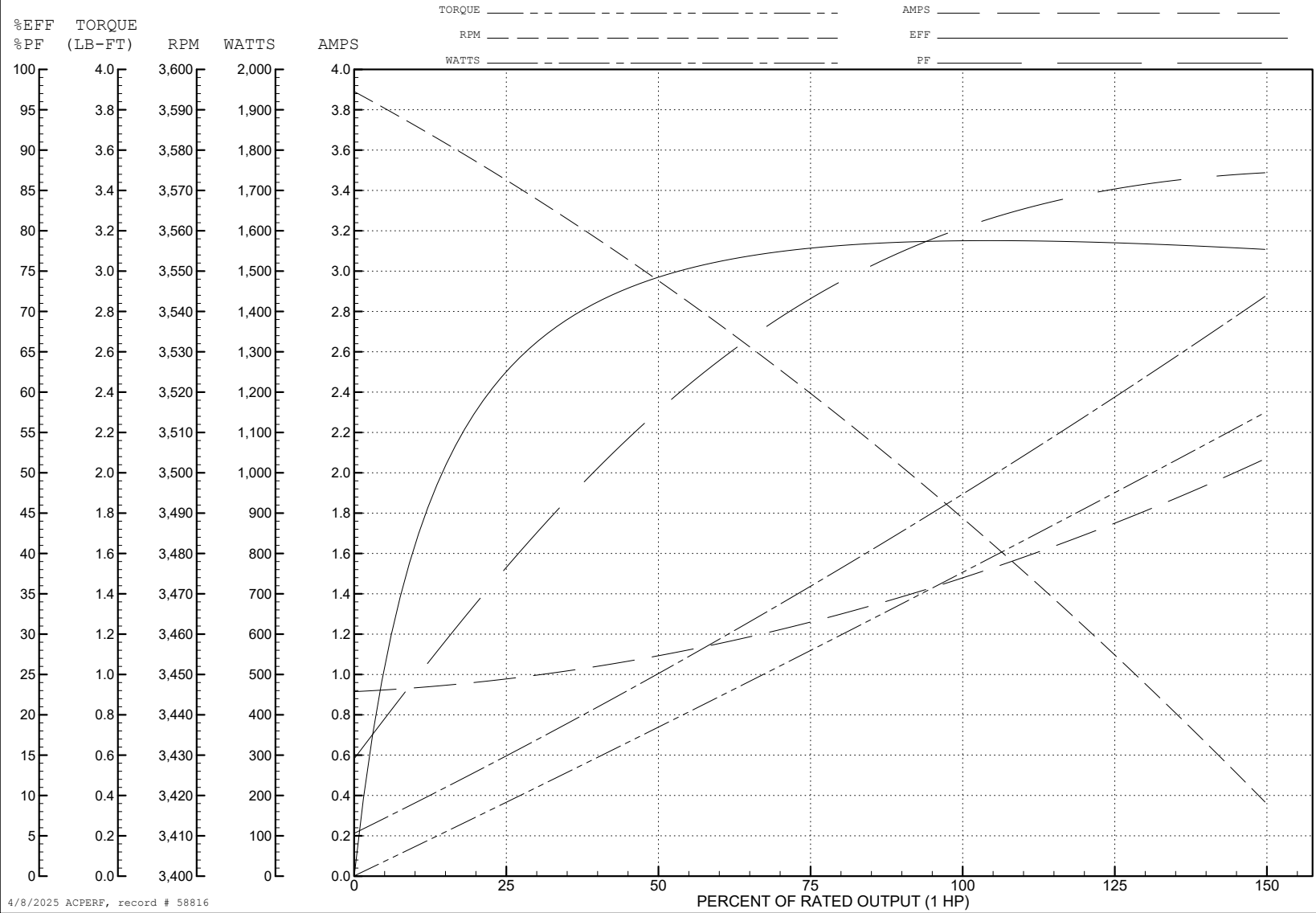
ABB Motors and Mechanical Inc.

WINDING # 35WGP987

Typical performance - not guaranteed values.

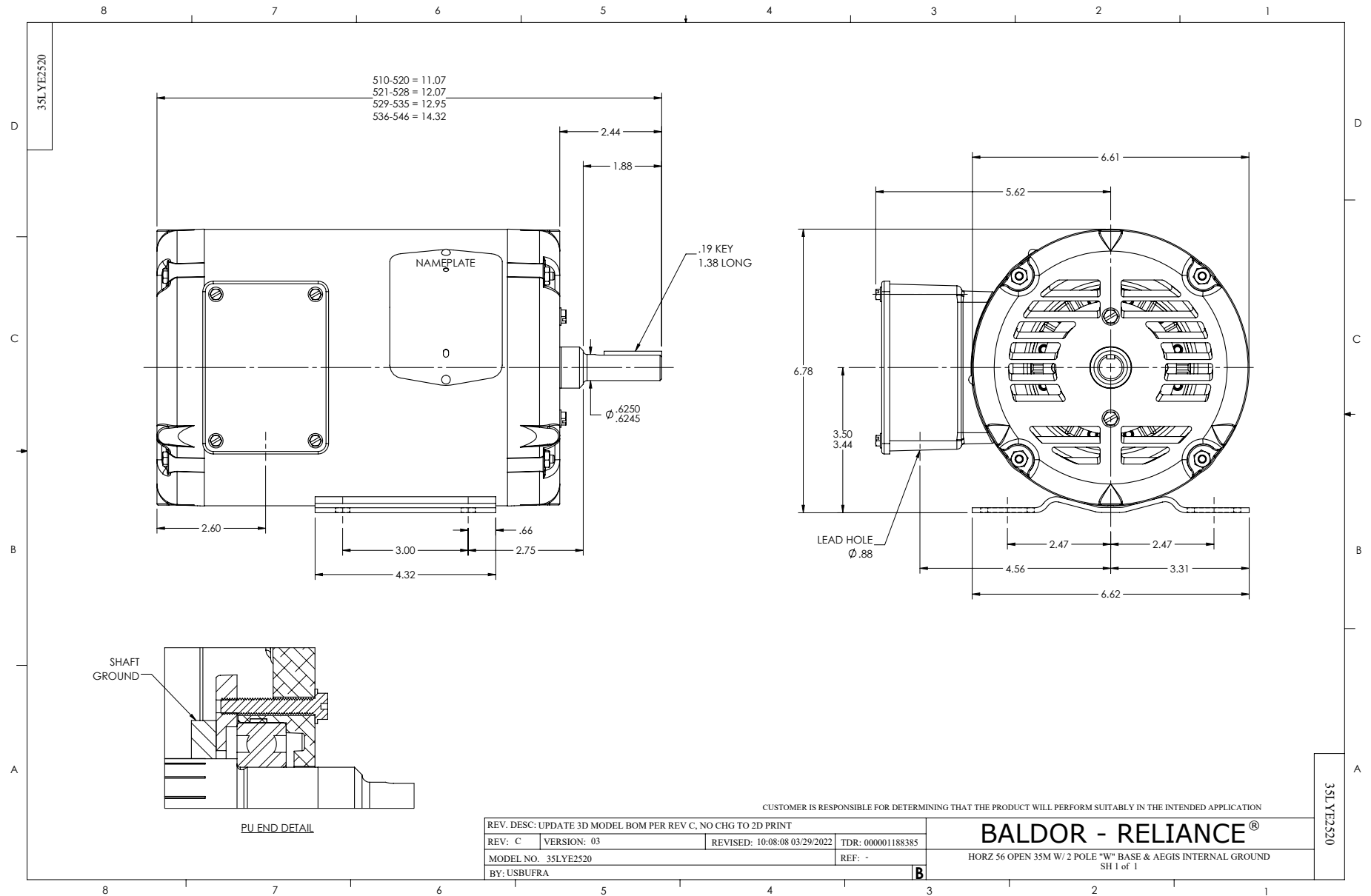
1 HP 3 PH 60 HZ 3500 RPM 460 V 3512M

TORQUES (LB-FT): PO=5.93 PU=2.27 LR=3.82 LRA=10.5



4/8/2025 ACPERF, record # 58816





CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS