ABB BALDOR RELIANCE

Customer information packet

VEM31116

1HP, 1770RPM, 3PH, 60HZ, 56C, 3520M, OPEN, F1, N
Class - None
Division - Not Applicable

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9/7/2026 11:15:59 AM

Specifications

Enclosure	OPEN
Frame	56C
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	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	1.630 A @ 460.0 V
	3.200 A @ 208.0 V
	3.260 A @ 230.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F

Part Detail

Revision	M
Type	AC
Mech. spec.	35E4017
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYE4017
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18,0# Y
Proprietary	False
Created date	01-10-2022

Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.22 IN
Power Factor	67
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1760 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

Nameplate

NP3155LUA											
CAT.NO.	VEM31116										
SPEC.	35E4017G004G1										
HP	1										
VOLTS	230/460										
AMPS	3.26/1.63										
RPM	1760										
FRAME	56C		**HZ**	60			**PH**	3			
SF	1.15	**CODE**	N	**DES**	B	**CLASS**	F				
F.L. AVG. EFF.	85.5	**PF**	67								
RATING	40C AMB-CONT										
CC											
DE	6205		**ODE**	6203							
ENCL	OPEN	**SN**									
USABLE AT	50HZ 1HP 190/380V 3.6/1.8A										SF1.0

AC Induction Motor Performance Data
Record # 86927
Typical performance - not guaranteed values

Winding: 35WGG004-R007	**Type:** 3520M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.97 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.26/1.63	**Breakdown Torque**	13.68 LB-FT
R.P.M.			1760	**Pull-up Torque**	7.85 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	9.01 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	14.13 A
Service Factor (S.F.)			1.15	**No-load Current**	1.08 A
NEMA Nom. Eff.	85.5	**Power Factor**	67	**Line-line Res. @ 25ºC**	16.9 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	24°C
S.F. Amps			3.52/1.76	**Temp. Rise @ S.F. Load**	27°C
				Locked-rotor Power Factor	61.5
				Rotor inertia	0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	30	47	60	69	76	79	73
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7	85.6
Speed	1791	1784	1776	1768	1759	1750	1763
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09	1.73

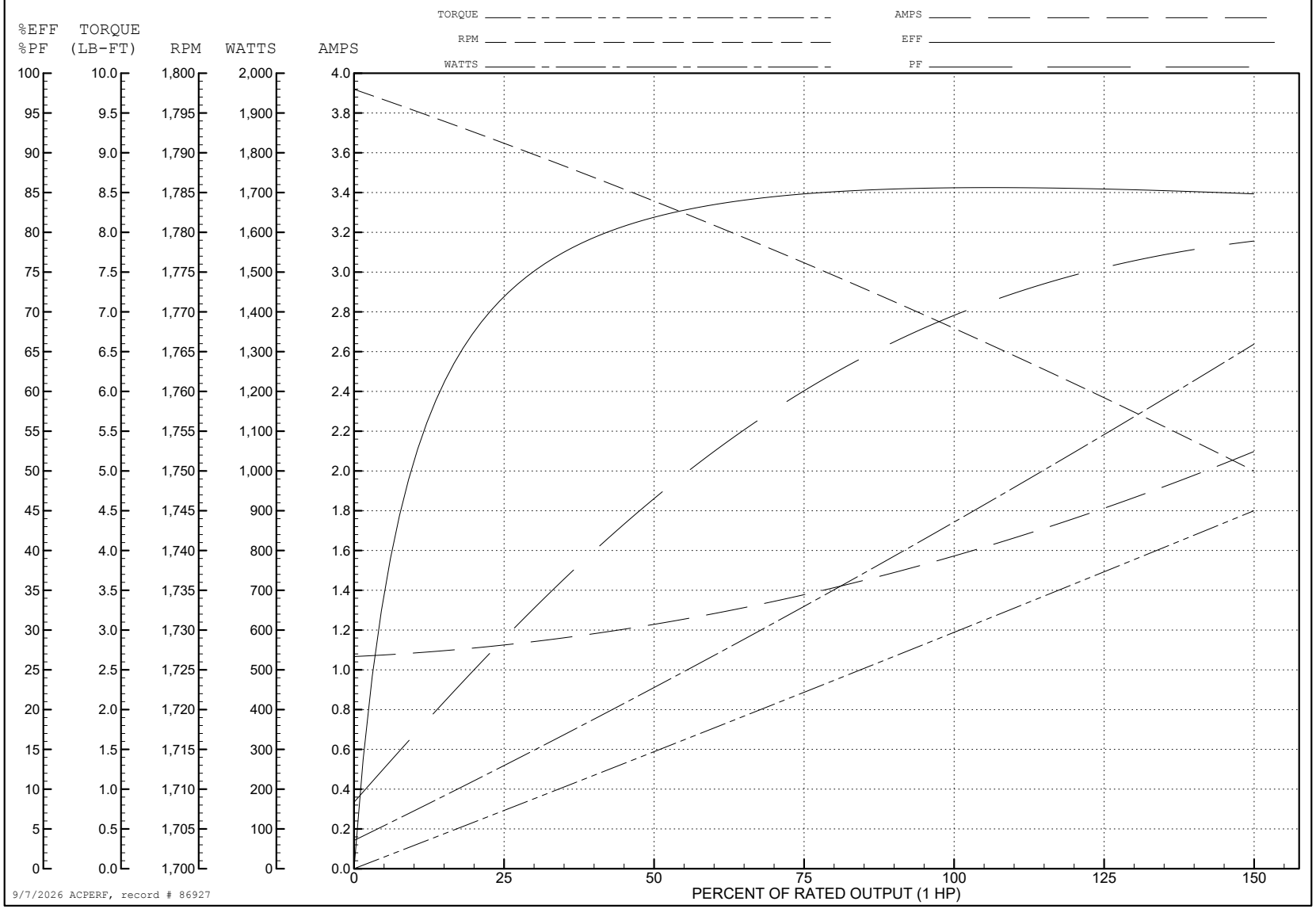
ABB Motors and Mechanical Inc.

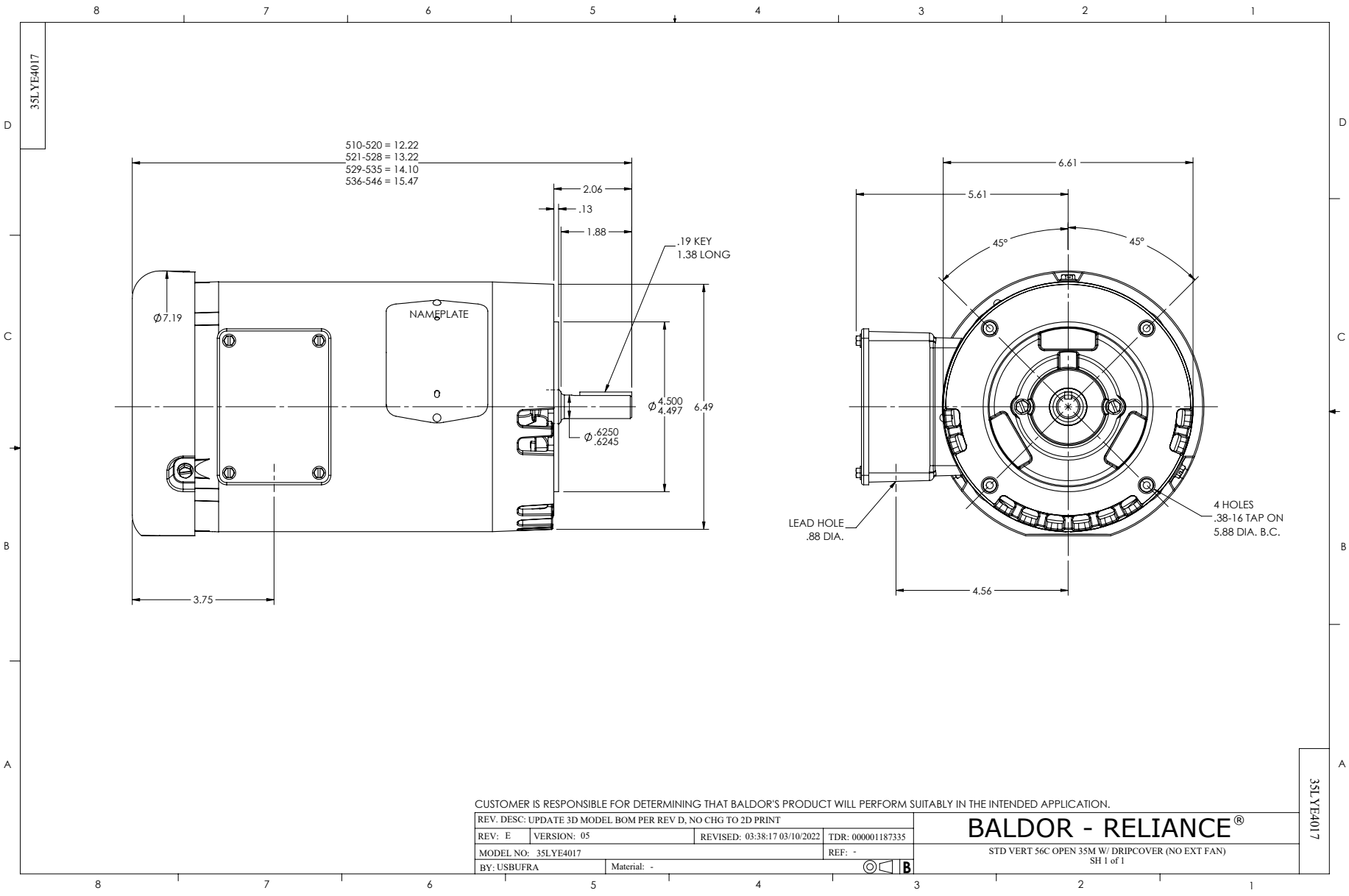
WINDING # 35WGG004

1 HP 3 PH 60 HZ 1760 RPM 460 V 3520M

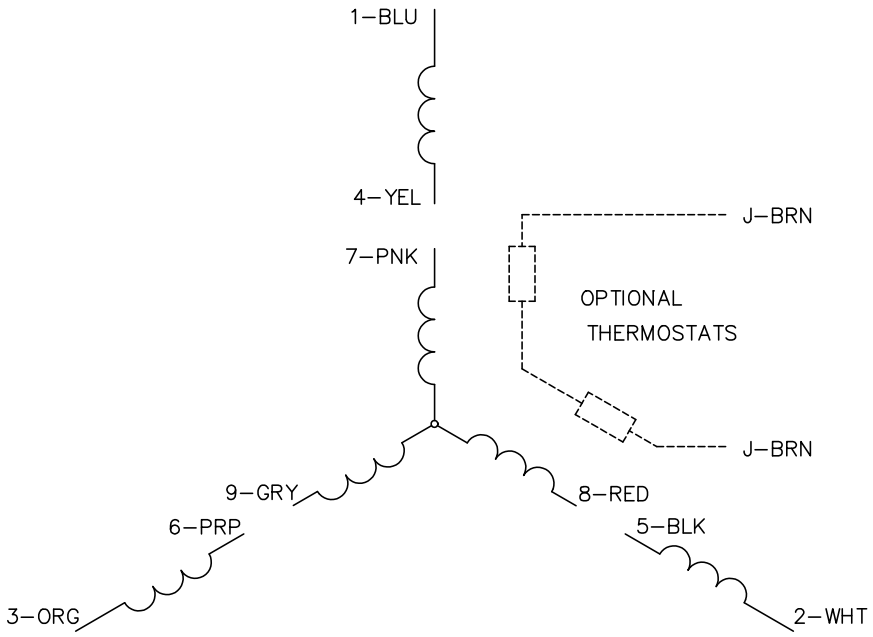
Typical performance - not guaranteed values.

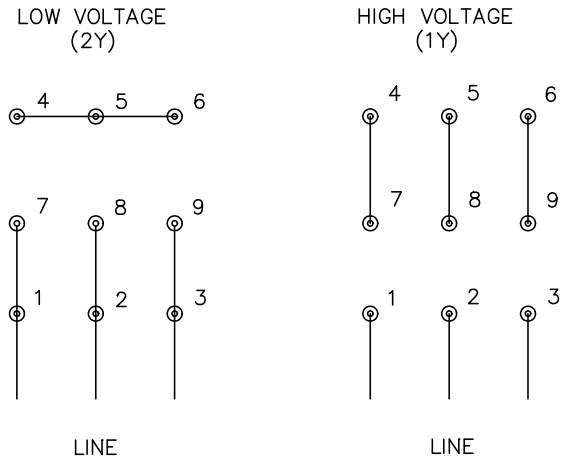
TORQUES(LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13




35LYE4017
510-520 = 12.22
521-528 = 13.22
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
Ø7.19
NAMEPLATE
Ø 4.500
4.497
6.49
Ø .6250
.6245
3.75
6.61
5.61
45°
45°
LEAD HOLE
.88 DIA.
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
4.56
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: UPDATE 3D MODEL BOM PER REV D, NO CHG TO 2D PRINT
REV: E
VERSION: 05
REVISED: 03:38:17 03/10/2022
TDR: 000001187335
MODEL NO: 35LYE4017
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD VERT 56C OPEN 35M W/ DRIPCOVER (NO EXT FAN)
SH 1 of 1
35LYE4017

CD0005





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			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS