ABB BALDOR RELIANCE

Customer information packet

VEM3546-57

1/.75KWHP, 1470RPM, 3PH, 50HZ, 56C, 3520M, TEF
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
9/7/2026 10:20:29 AM

Specifications

Enclosure	TEFC
Frame	56C
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	400.0 V @ 50 HZ
	230.0 V @ 50 HZ
Agency Approvals	C UR US
	CE
	CURUS
	IE3
	UKCA
	WEEE
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	3.450 A @ 230.0 V
	2.000 A @ 400.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part Detail

Revision	C
Type	AC
Mech. spec.	35A013
Base	
Status	PRD/A
Elec. spec.	35WGZ921
Layout	35LYA013
Eff. date	05-07-2024
CD Diagram	CD0022
Poles	04
Leads	6#18
Proprietary	False
Created date	03-11-2022

Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	6 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.23 IN
Power Factor	65
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	1470 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

NP2716L												
CAT NO	VEM3546-57											
SPEC.	35A013Z921G1											
HP	1/.75KW						**PH**	3				
VOLTS	230/400											
AMP	3.45/2											
R.P.M. (1/MIN)	1470											
FRAME	56C		**HZ**	50				**I.P.**	44			
SER.F.	1.15	**CODE**	N	**DES**	B			**CL**	F			
NOM.EFF.	82.5			**% (100%)**								
PF	65											
RATING	40C AMB-S1 CONT					**CC**						
DE BRG	6205			**ODE**	6203							
ENCL	TEFC	**SN**										
BLANK	SFA 3.7/2.15											
	IC411 15KG											

AC Induction Motor Performance Data
Record # 88662
Typical performance - not guaranteed values

Winding: 35WGZ921-R001	**Type:** 3520M	**Enclosure:** TEFC

Nameplate Data				**400 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	3.56 LB-FT
Volts			230/400	**Start Configuration**	direct on line
Full Load Amps			3.45/2	**Breakdown Torque**	17.3 LB-FT
R.P.M.			1470	**Pull-up Torque**	11 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	12.7 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	18.2 A
Service Factor (S.F.)			1.15	**No-load Current**	1.65 A
NEMA Nom. Eff.	82.5	**Power Factor**	65	**Line-line Res. @ 25ºC**	13.5 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	32°C
S.F. Amps			3.7/2.15	**Temp. Rise @ S.F. Load**	36°C
				Locked-rotor Power Factor	68
				Rotor inertia	0.144 lb-ft²

Load Characteristics 400 V, 50 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	26	40	53	62	70	75	67
Efficiency	62.7	75.6	80.6	82.5	83.1	82.9	82.6
Speed	1494	1488	1483	1477	1470	1463	1473
Line amperes	1.67	1.77	1.9	2.09	2.32	2.59	2.23

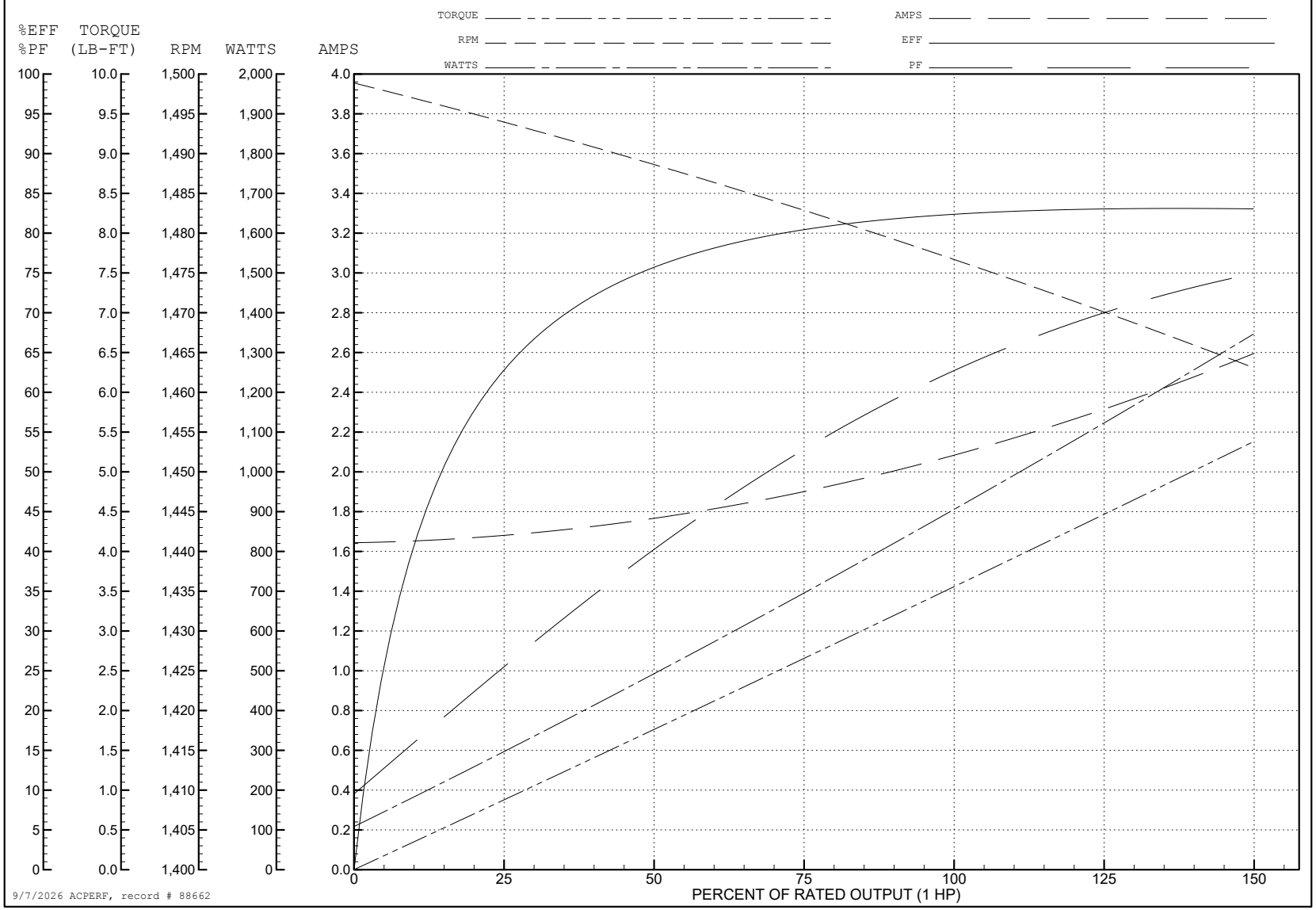
ABB Motors and Mechanical Inc.

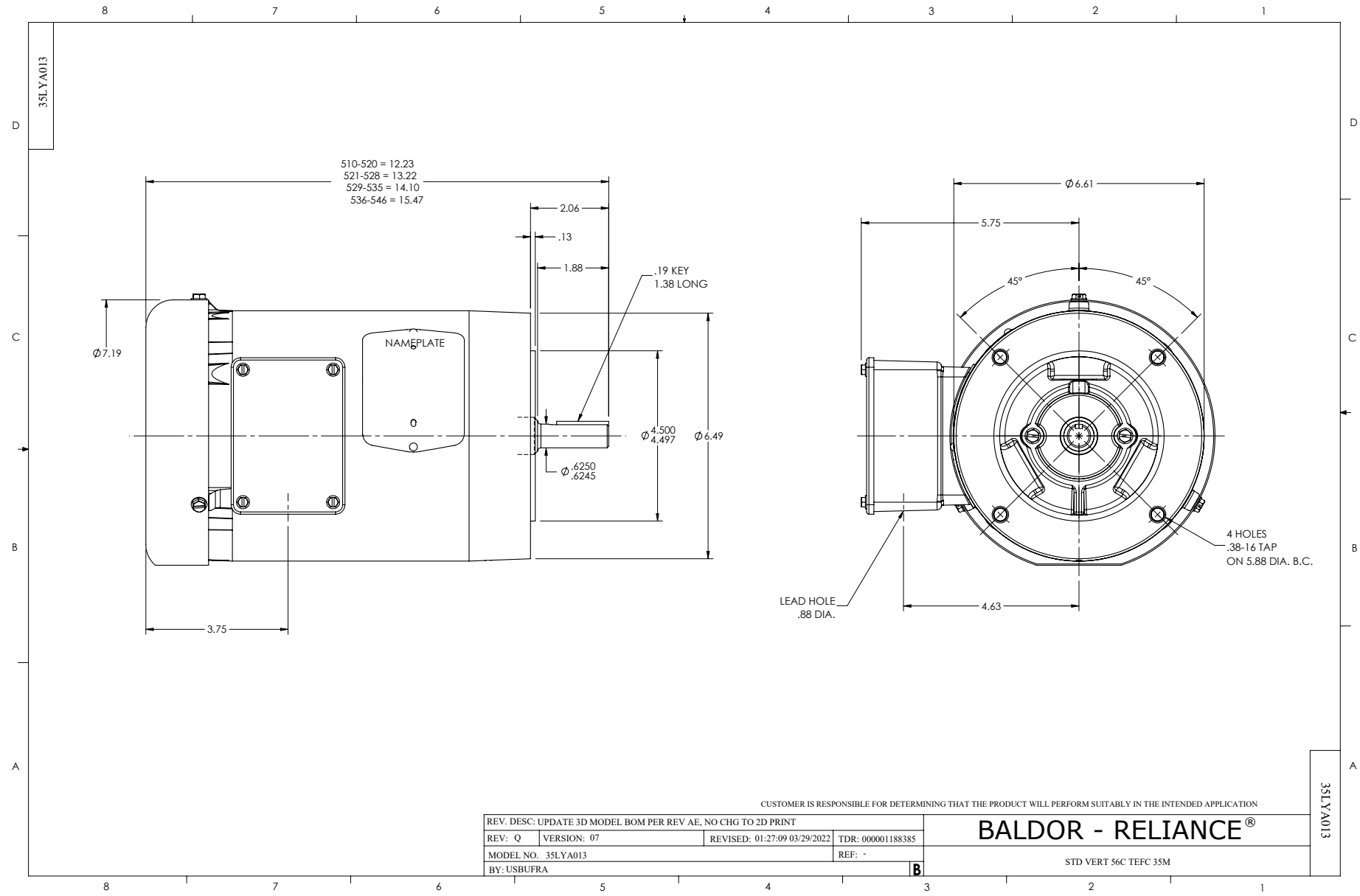
WINDING # 35WGZ921

1 HP 3 PH 50 HZ 1470 RPM 400 V 3520M

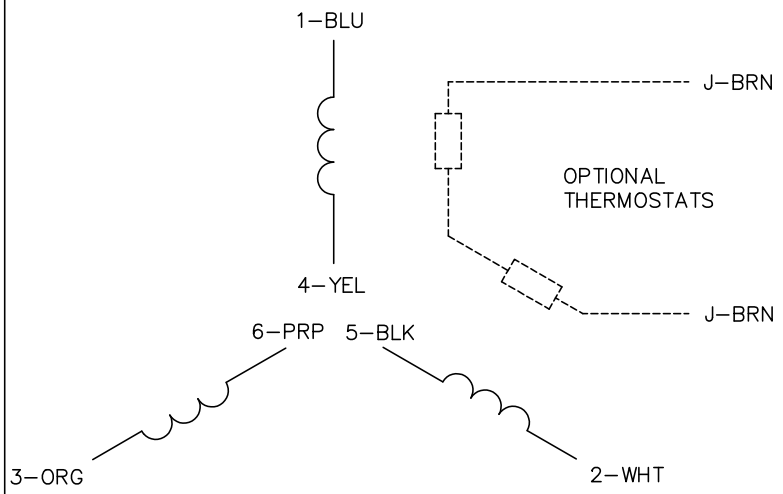
Typical performance - not guaranteed values.

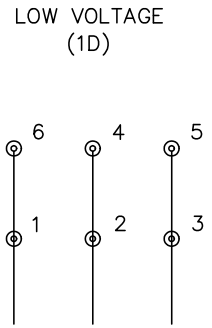
TORQUES(LB-FT): PO=17.3 PU=11 LR=12.7 LRA=18.2

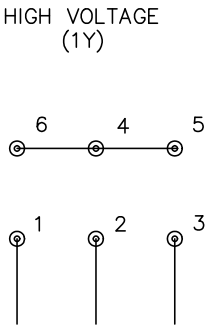



35LYA013
510-520 = 12.23
521-528 = 13.22
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
NAMEPLATE
Ø7.19
Ø4.500
4.497
Ø6.49
Ø.6250
.6245
3.75
Ø6.61
5.75
45°
45°
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
.88 DIA.
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV AE, NO CHG TO 2D PRINT
REV: Q
VERSION: 07
REVISED: 01:27:09 03/29/2022
TDR: 000001188385
MODEL NO. 35LYA013
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35M
35LYA013

CD0022







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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: F	BY: JLP	REVISED: 01/21/99 3:54	TDR: 0171435
CD0022		FILE: AAA00005144	MDL: –
		MTL: –	3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022