ABB BALDOR RELIANCE

Customer information packet

VEM3545-57

1HP, 2850RPM, 3PH, 50HZ, 56C, 3516M, TEFC, F1, N
Class - None
Division - Not Applicable

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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	3000 RPM @ 50 HZ
Voltage @ Frequency	230.0 V @ 50 HZ
	400.0 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	1.600 A @ 400.0 V
	2.800 A @ 230.0 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	P
Type	AC
Mech. spec.	35A013
Base	
Status	PRD/A
Elec. spec.	35WGL462
Layout	35LYA013
Eff. date	09-21-2026
CD Diagram	CD0022
Poles	02
Leads	6#18
Proprietary	False
Created date	12-23-2015

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	B
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.23 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	2850 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	VEM3545-57									
SPEC.	35A013L462G1									
HP	1/.75KW					**PH**	3			
VOLTS	230/400									
AMP	2.8/1.6									
R.P.M. (1/MIN)	2850									
FRAME	56C		**HZ**	50			**I.P.**	44		
SER.F.	1.25	**CODE**	J	**DES**	B		**CL**	B		
NOM.EFF.	82.5			**% (100%)**						
PF	87									
RATING	40C AMB-S1 CONT				**CC**					
DE BRG	6205		**ODE**	6203						
ENCL	TEFC	**SN**								
BLANK	IE3-81.2(75%)77.8(50%)									
	SFA 3.3/1.9 IC411									
	16KG									

AC Induction Motor Performance Data
Record # 54628
Typical performance - not guaranteed values

Winding: 35WGL462-R001	**Type:** 3516M	**Enclosure:** TEFC

Nameplate Data				**400 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	1.9 LB-FT
Volts			230/400	**Start Configuration**	direct on line
Full Load Amps			2.8/1.6	**Breakdown Torque**	6.33 LB-FT
R.P.M.			2850	**Pull-up Torque**	5.05 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	5.67 LB-FT
NEMA Design Code	B	**KVA Code**	J	**Starting Current**	11.3 A
Service Factor (S.F.)			1.25	**No-load Current**	0.718 A
NEMA Nom. Eff.	82.5	**Power Factor**	87	**Line-line Res. @ 25ºC**	15.2 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	39°C
S.F. Amps			3.3/1.9	**Temp. Rise @ S.F. Load**	52°C
				Locked-rotor Power Factor	63.4
				Rotor inertia	0.0443 LB-FT2

Load Characteristics 400 V, 50 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	52	72	82	87	91	92	91
Efficiency	74.5	81.7	83	83	81.9	79.9	81.9
Speed	2963	2937	2906	2873	2836	2795	2836
Line amperes	0.825	1.01	1.28	1.55	1.89	2.27	1.89

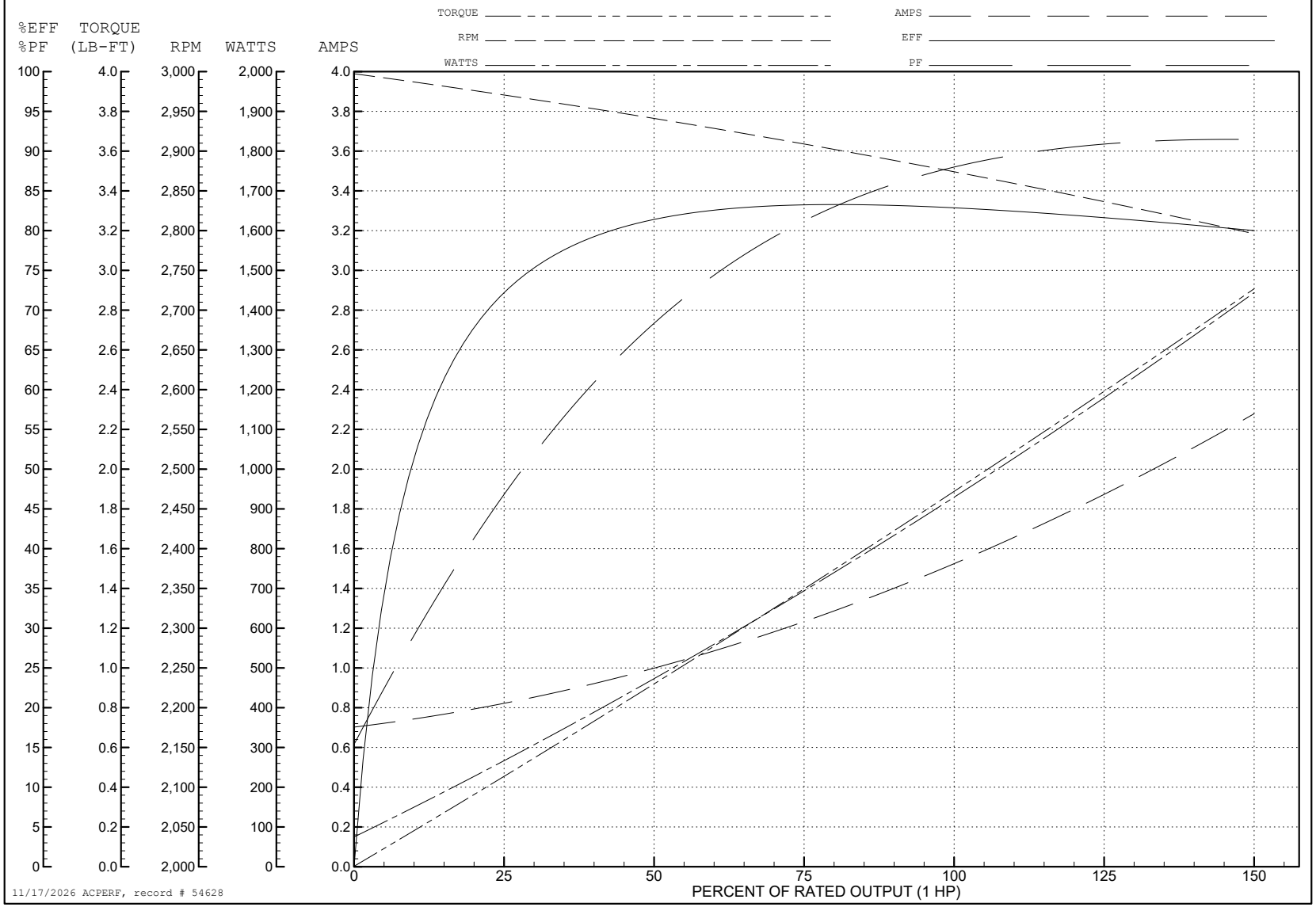
ABB Motors and Mechanical Inc.

WINDING # 35WGL462

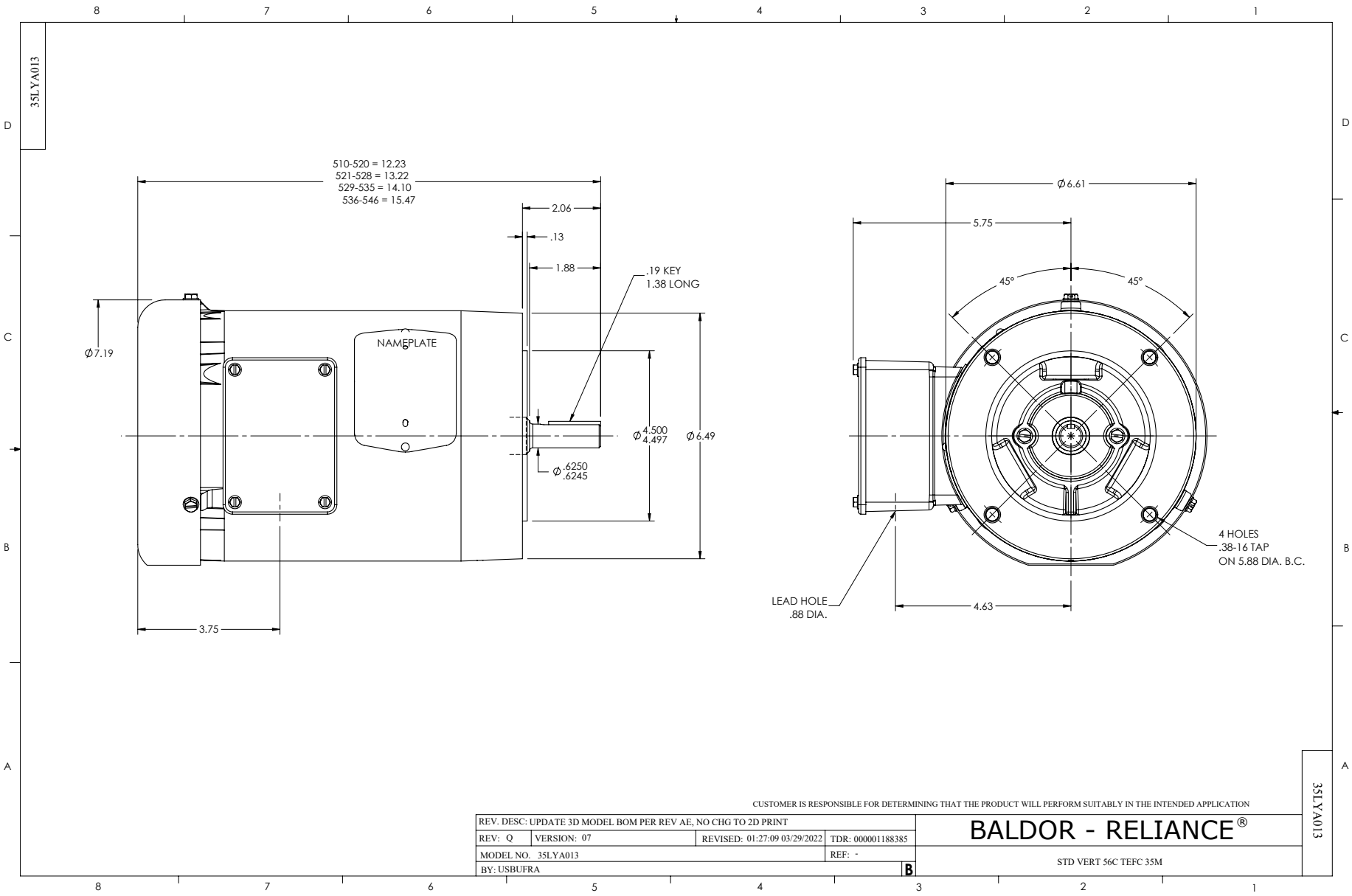
1 HP 3 PH 50 HZ 2850 RPM 400 V 3516M

TORQUES(LB-FT): PO=6.33 PU=5.05 LR=5.67 LRA=11.3

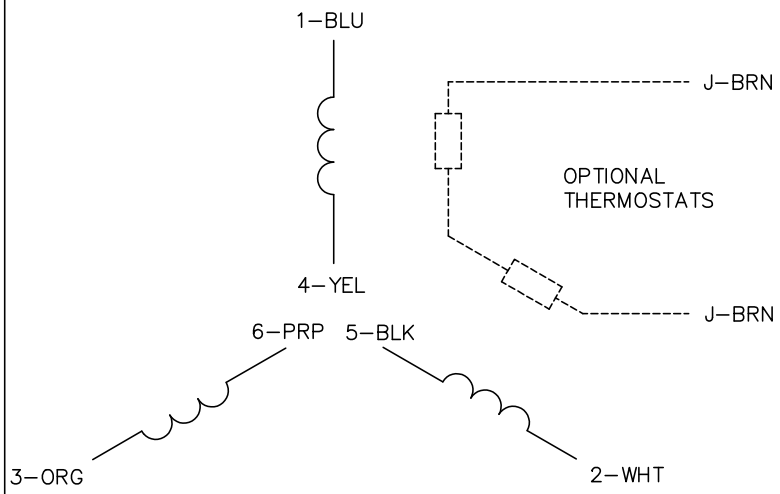
Typical performance - not guaranteed values.

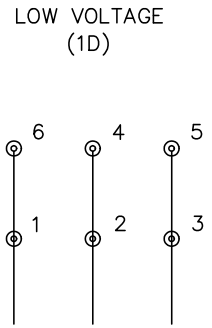


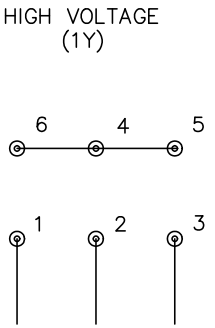
11/17/2026 ACPERF, record # 54628


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