

BALDOR • RELIANCE

Customer information packet

VEM3116T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3520M, OPEN, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	143TC
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	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.200 A @ 230.0 V 3.200 A @ 208.0 V 1.600 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part detail

Revision	G
Type	AC
Mech. spec.	35Z413
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYZ413
Eff. date	09-19-2024
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	01-10-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F
Inverter Code	Inverter Ready
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	12.25 IN
Power Factor	69
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	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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

NP3553LUA

CAT.NO.	VEM3116T						
SPEC.	35Z413G004G1						
HP	1						
VOLTS	230/460						
AMPS	3.2/1.6						
RPM	1770						
FRAME	143TC	HZ	60	PH	3		
SF	1.15	CODE	N	DES	B	CLASS	F
NEMA NOM. EFF	85.5	PF	69				
RATING	40C AMB-CONT						
CC	010A						
ENCL	OPEN	SN					
DE	6205	ODE	6203				
VPWM INVERTER READY	SFA 3.4/1.7						
CT30-60(2:1) VT3-60(20:1)							
USABLE AT	50HZ 1HP 190/380V 3.6/1.8A						SF1.0

AC Induction Motor Performance Data

Record # 91625

Typical performance - not guaranteed values

Winding: 35WGG004-R001		Type: 3520M	Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1	Full Load Torque	2.982 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	3.2/1.6	Breakdown Torque	14.6 LB-FT	
R.P.M.	1770	Pull-up Torque	7.57 LB-FT	
Hz	60 Phase	Locked-rotor Torque	9.17 LB-FT	
NEMA Design Code	B KVA Code	Starting Current	14.6 A	
Service Factor (S.F.)	1.15	No-load Current	1.2 A	
NEMA Nom. Eff.	85.5 Power Factor	Line-line Res. @ 25°C	16.049 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	36°C	
S.F. Amps	3.4/1.7	Temp. Rise @ S.F. Load	41°C	
		Locked-rotor Power Factor	61.549	
		Rotor inertia	0.144 lb-ft ²	

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	45	58	67	73	78	71
Efficiency	71.1	81.2	84.7	85.8	86	85.6	85.9
Speed	1794	1787.3	1781.1	1774.3	1767.4	1759.4	1770
Line amperes	1.22	1.31	1.46	1.64	1.86	2.11	1.77

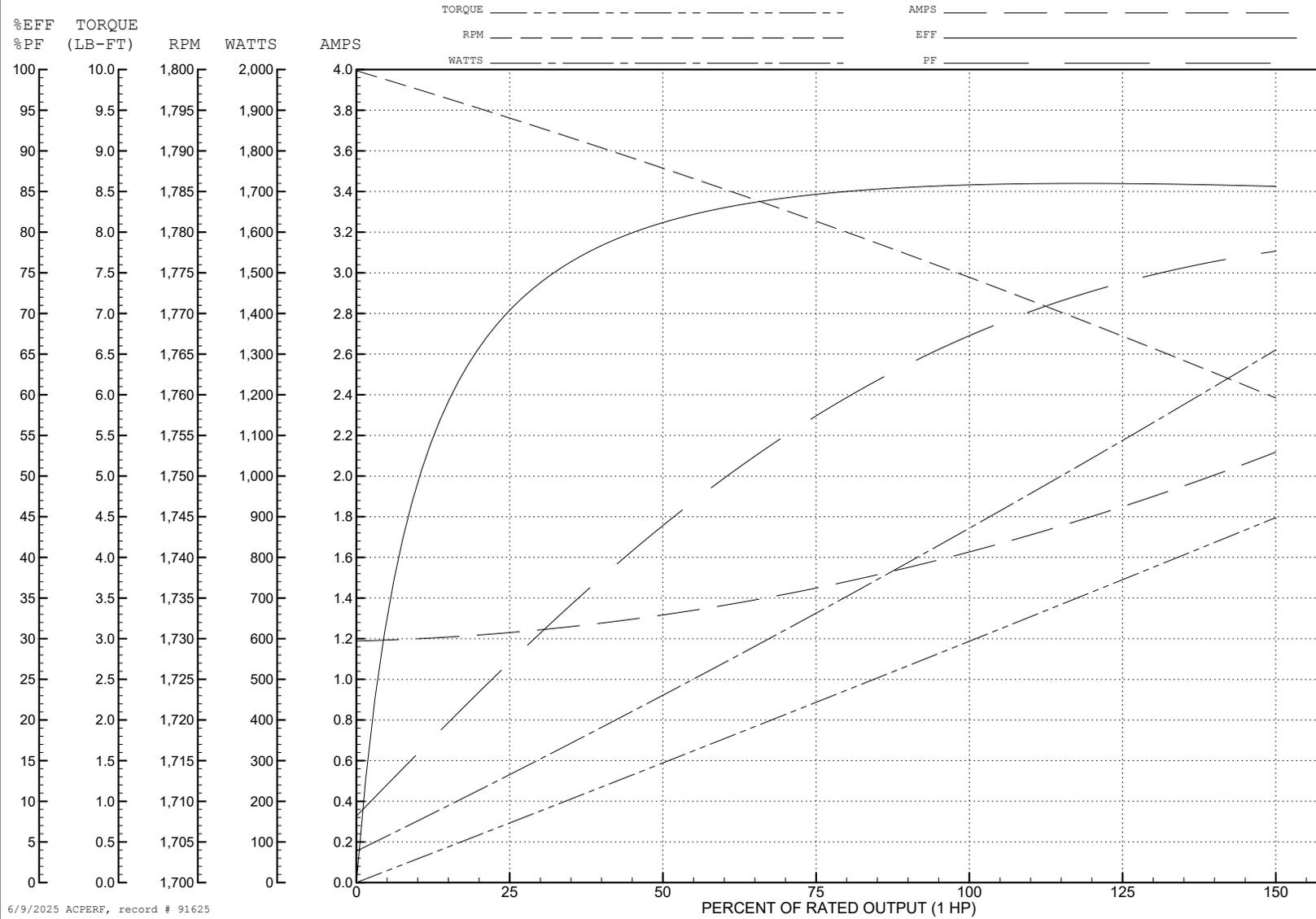
ABB Motors and Mechanical Inc.

WINDING # 35WGG004

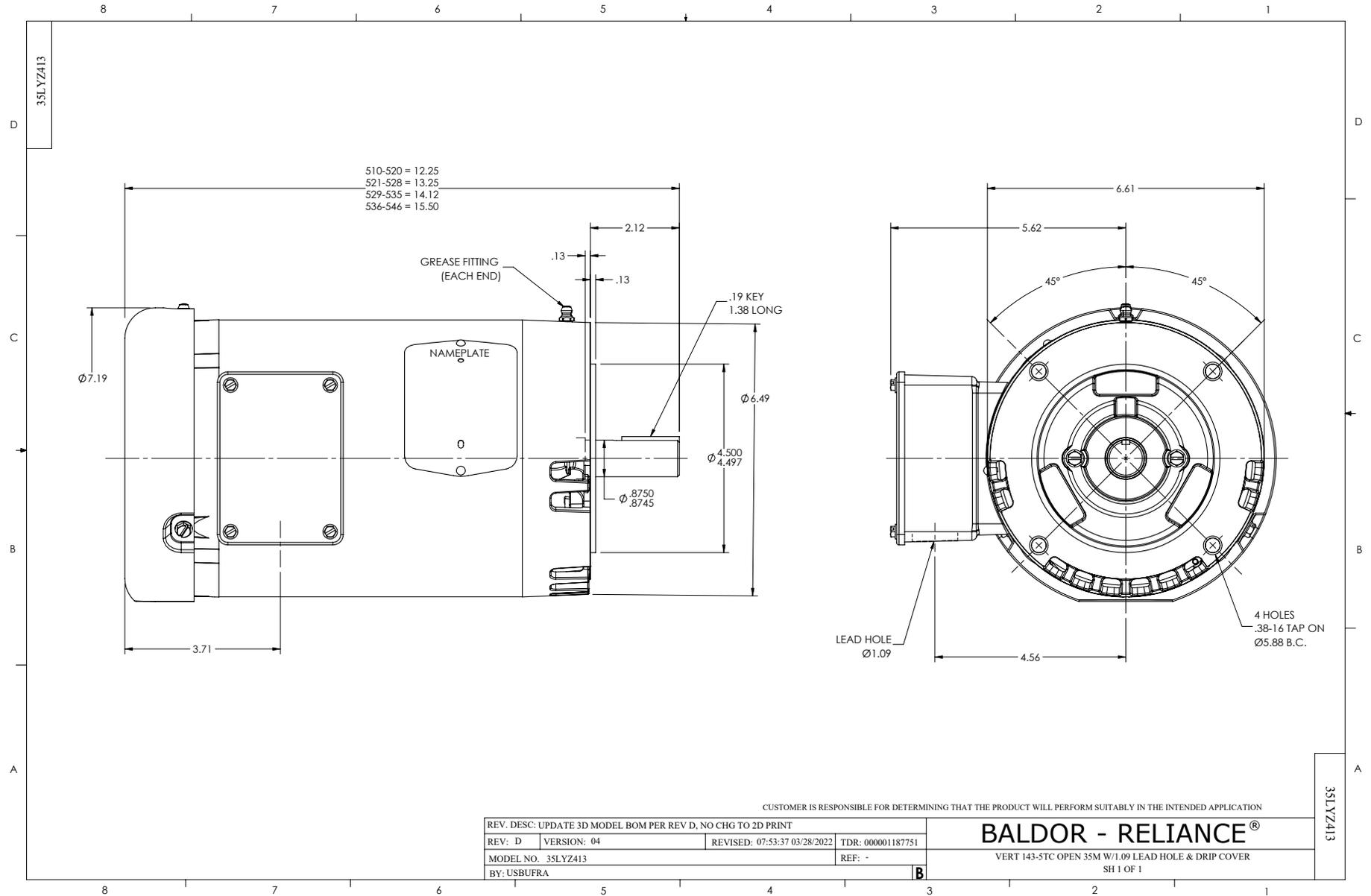
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3520M

TORQUES (LB-FT): PO=14.6 PU=7.57 LR=9.17 LRA=14.6



6/9/2025 ACPERF, record # 91625



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