ABB BALDOR RELIANCE

Customer information packet

VENM3546T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3522M, TENV, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TENV
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	CURUSEEV
	NEMA PREMIUM
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	1.670 A @ 460.0 V
	3.300 A @ 208.0 V
	3.340 A @ 230.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a

Part Detail

Revision	E
Type	AC
Mech. spec.	35E016
Base	
Status	PRD/A
Elec. spec.	35WGZ818
Layout	35LYE016
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
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	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.12 IN
Power Factor	66
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

NP3441LUA										
CAT.NO.	VENM3546T									
SPEC	35E016Z818G1									
HP	1									
VOLTS	230/460									
AMPS	3.34/1.67									
RPM	1770									
FRAME	143TC	**HZ**	60			**PH**	3			
SF	1.15	**CODE**	M	**DES**	B	**CLASS**	F			
NEMA NOM. EFF	85.5	**PF**	66							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TENV	**SER**								
DE	6205	**ODE**	6203							
VPWM INVERTER READY	SFA 3.5/1.75									
CT6-60H(10:1)VT3-60H(20:1										
	1HP 50HZ 190/380V 3.7/1.85A									SF1.0

AC Induction Motor Performance Data
Record # 89784
Typical performance - not guaranteed values

Winding: 35WGZ818-R002	**Type:** 3522M	**Enclosure:** TENV

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.99 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.34/1.67	**Breakdown Torque**	16.6 LB-FT
R.P.M.			1770	**Pull-up Torque**	7.42 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	10.32 LB-FT
NEMA Design Code	B	**KVA Code**	M	**Starting Current**	16.1 A
Service Factor (S.F.)			1.15	**No-load Current**	1.23 A
NEMA Nom. Eff.	85.5	**Power Factor**	66	**Line-line Res. @ 25ºC**	14.4 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	63°C
S.F. Amps			3.5/1.75	**Temp. Rise @ S.F. Load**	71°C
				Locked-rotor Power Factor	60.4724
				Rotor inertia	0.159 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	27	43	56	66	73	78	72
Efficiency	70.8	81.2	84.5	85.9	85.8	85.2	85.5
Speed	1793	1786	1781	1773	1766	1758	1768
Line amperes	1.25	1.34	1.49	1.67	1.87	2.12	1.75

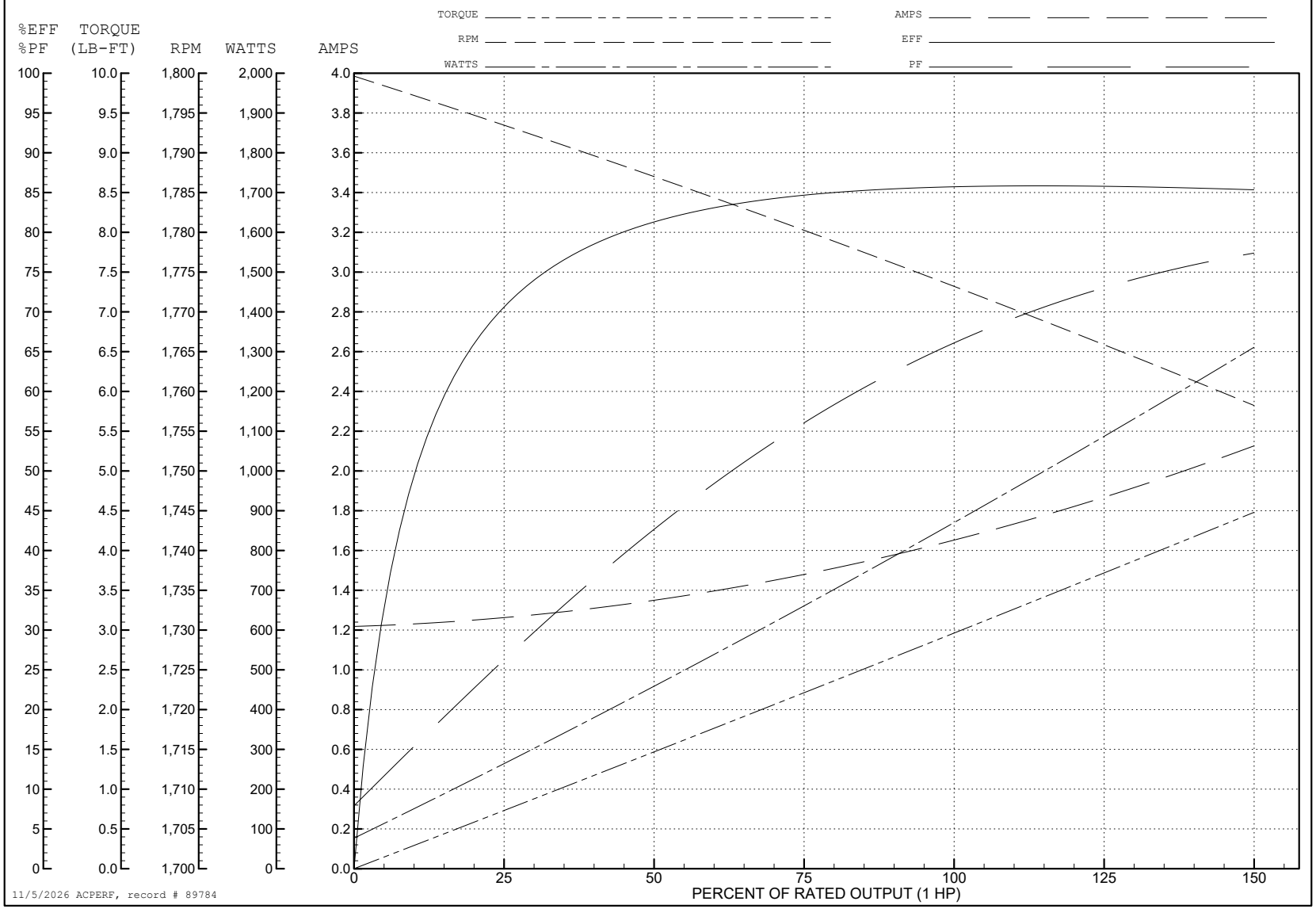
ABB Motors and Mechanical Inc.

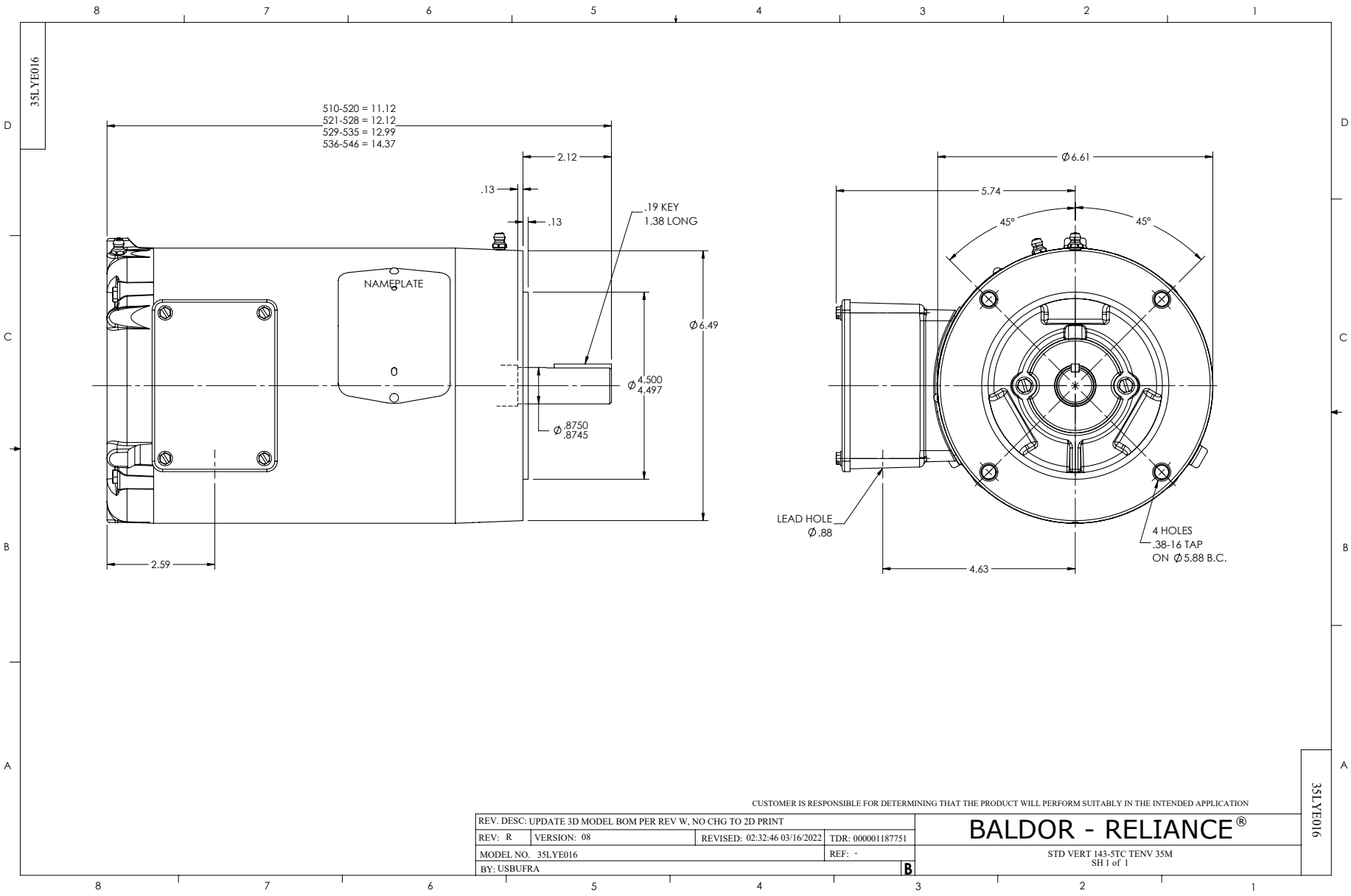
WINDING # 35WGZ818

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

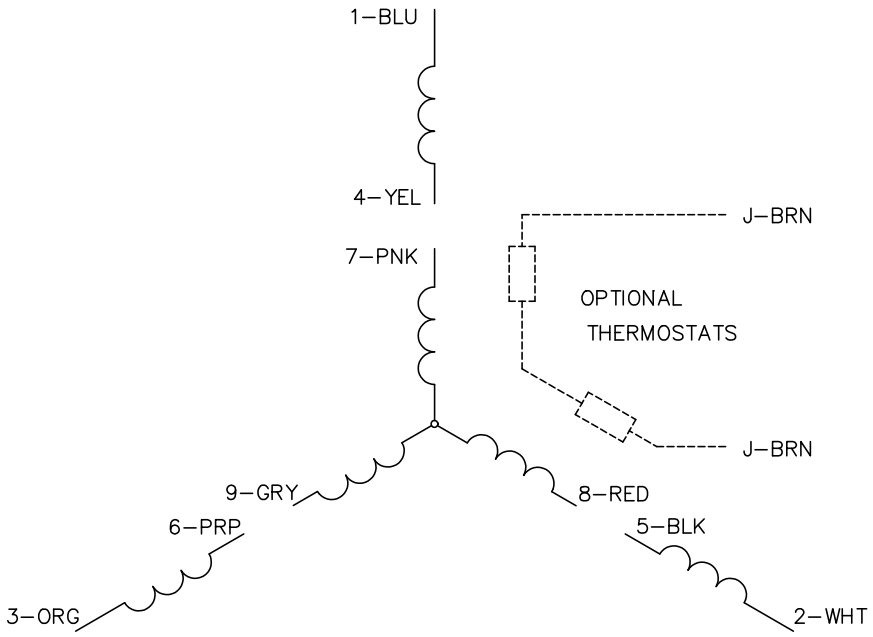
Typical performance - not guaranteed values.

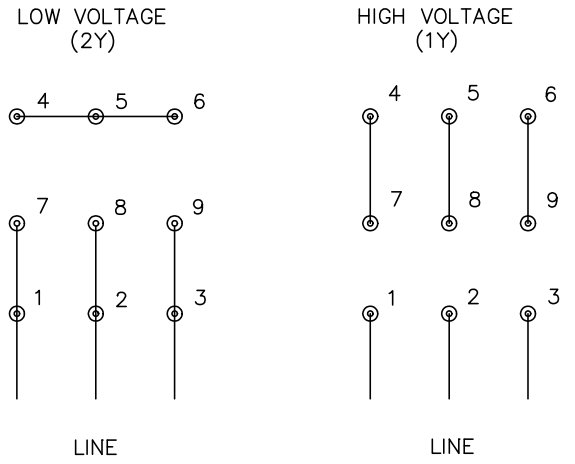
TORQUES(LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1




35LYE016
510-520 = 11.12
521-528 = 12.12
529-535 = 12.99
536-546 = 14.37
2.12
.13
.13
.19 KEY
1.38 LONG
NAMEPLATE
Ø6.49
Ø4.500
4.497
Ø.8750
.8745
2.59
Ø6.61
5.74
45°
45°
LEAD HOLE
Ø.88
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
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 W, NO CHG TO 2D PRINT
REV: R
VERSION: 08
REVISED: 02:32:46 03/16/2022
TDR: 000001187751
MODEL NO. 35LYE016
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD VERT 143-5TC TENV 35M
SH 1 of 1
35LYE016

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