ABB BALDOR RELIANCE

Customer information packet

VEM3559

3HP, 3450RPM, 3PH, 60HZ, 56C, 3532M, TEFC, F1, N
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
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	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	208.0 V @ 60 HZ
	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM
	CURUSEEV
	NEMA PREMIUM (OLD LOGO)
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	3.600 A @ 460.0 V
	7.200 A @ 230.0 V
	7.900 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	Y
Type	AC
Mech. spec.	35A013
Base	
Status	PRD/A
Elec. spec.	35WGQ060
Layout	35LYA013
Eff. date	09-21-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	01-30-2011

Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	3.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3532M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.10 IN
Power Factor	92
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	1.15
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	3450 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.	VEM3559								
SPEC	35A013Q060G1								
HP	3								
VOLTS	208-230/460								
AMPS	7.9-7.2/3.6								
RPM	3450								
FRAME	56C	**HZ**	60	**PH**	3				
SF	1.15	**CODE**	L	**DES**	B	**CLASS**	F		
NEMA NOM. EFF	86.5	**PF**	92						
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	**SER**							
DE	6205	**ODE**	6203						
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
	50Hz 3HP 190/380V 8.8/4.4A								SF1.0

AC Induction Motor Performance Data
Record # 37570
Typical performance - not guaranteed values

Winding: 35WGQ060-R001	**Type:** 3532M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			3	**Full Load Torque**	4.61 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			7.9-7.2/3.6	**Breakdown Torque**	19.9 LB-FT
R.P.M.			3450	**Pull-up Torque**	11.9 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	18.8 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	33.1 A
Service Factor (S.F.)			1.15	**No-load Current**	1.17 A
NEMA Nom. Eff.	86.5	**Power Factor**	92	**Line-line Res. @ 25ºC**	4.7916 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	57°C
S.F. Amps				**Temp. Rise @ S.F. Load**	72°C
				Locked-rotor Power Factor	47
				Rotor inertia	0.0885 LB-FT2

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	62	81	88	92	93	94	93
Efficiency	83.7	87.9	88.2	87.2	85.6	83.5	86.2
Speed	3562.2	3530.9	3497.8	3462.5	3420.8	3375.4	3437
Line amperes	1.5	2.08	2.79	3.57	4.46	5.44	4.1

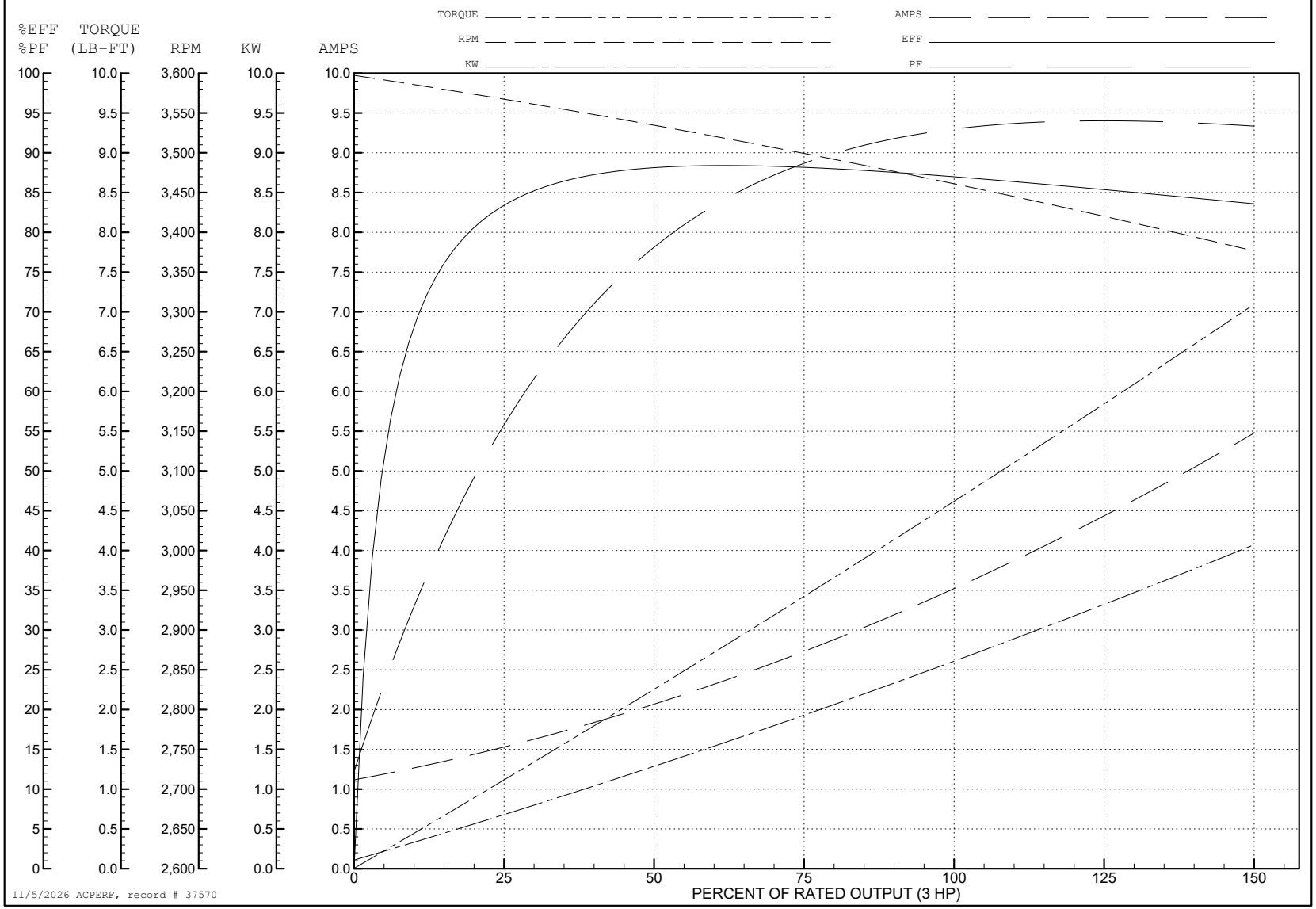
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WINDING # 35WGQ060

3 HP 3 PH 60 HZ 3450 RPM 460 V 3532M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=19.9 PU=11.9 LR=18.8 LRA=33.1



AC Induction Motor Performance Data
Record # 117003
Typical performance - not guaranteed values

Winding: 35WGQ060-R001	**Type:** 3532M	**Enclosure:** TEFC

Nameplate Data				**208 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			3	**Full Load Torque**	4.65 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			7.9-7.2/3.6	**Breakdown Torque**	16 LB-FT
R.P.M.			3450	**Pull-up Torque**	9.4 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	14.9 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	59 A
Service Factor (S.F.)			1.15	**No-load Current**	1.99 A
NEMA Nom. Eff.	86.5	**Power Factor**	92	**Line-line Res. @ 25ºC**	1.17 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	60°C
S.F. Amps				**Temp. Rise @ S.F. Load**	75°C
				Locked-rotor Power Factor	47.1
				Rotor inertia	0.0885 lb-ft²

Load Characteristics 208 V, 60 Hz, 3 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	71	87	92	94	94	94	94
Efficiency	86.1	89	88.3	86.6	84.3	81.4	85.2
Speed	3556	3518	3478	3433	3381	3320	3402
Line amperes	2.82	4.23	5.91	7.77	9.89	12.3	9.04

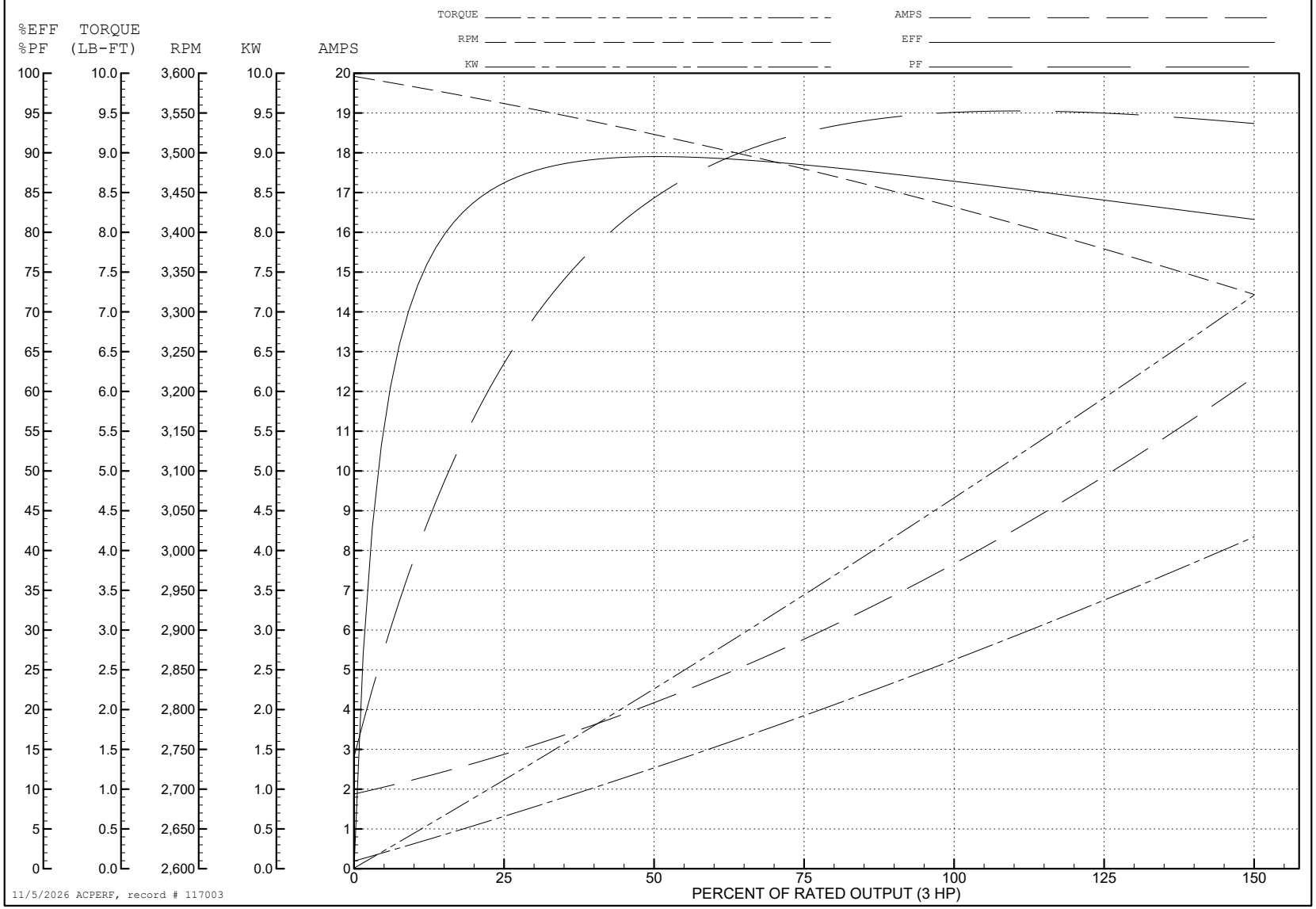
ABB Motors and Mechanical Inc.

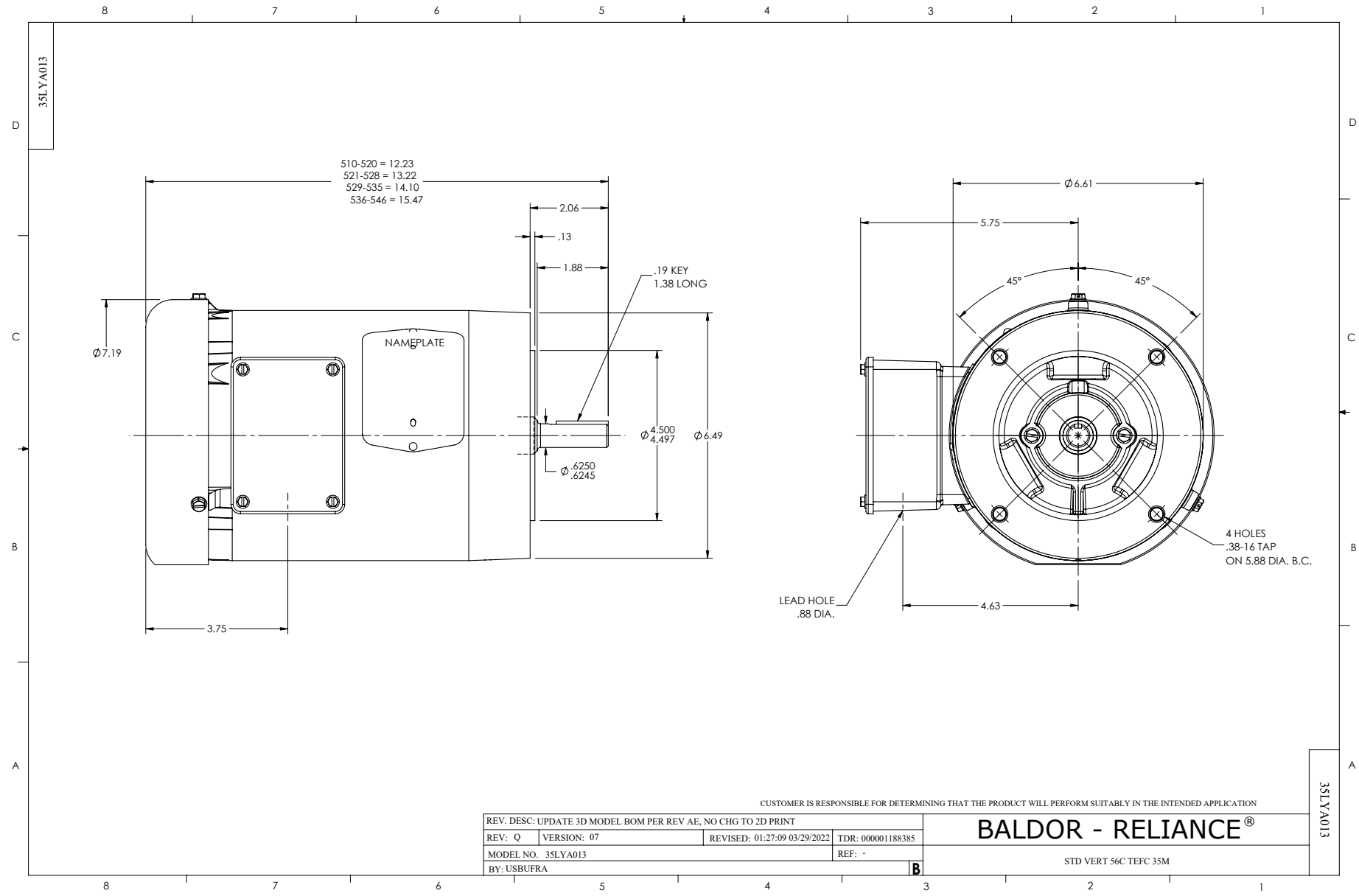
WINDING # 35WGQ060

3 HP 3 PH 60 HZ 3450 RPM 208 V 3532M

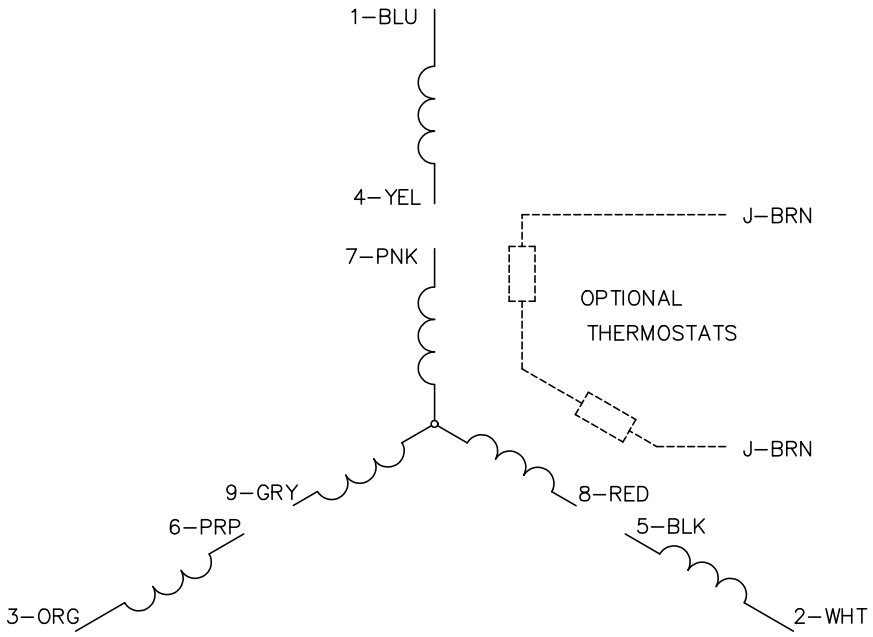
Typical performance - not guaranteed values.

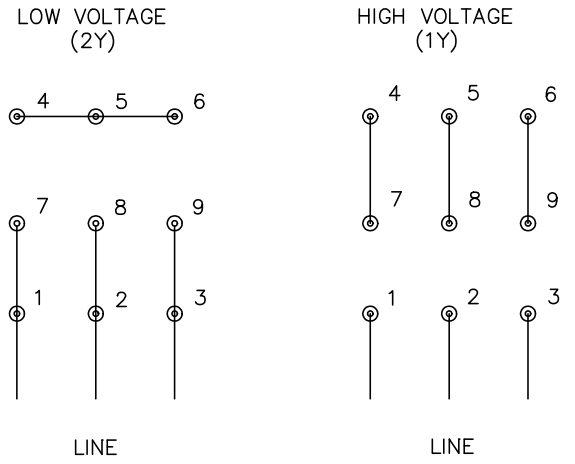
TORQUES(LB-FT): PO=16 PU=9.4 LR=14.9 LRA=59




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

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