ABB BALDOR RELIANCE

Customer information packet

VXM051542

1.5//1HP, 1770//1475RPM, 3PH, 60//50HZ, 56C
Class - CLI GP D; CLII GP F,G
Division - Division I

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Specifications

Enclosure	XPFC
Frame	56C
Frame Material	Steel
Frequency	50.00 Hz
	60.00 Hz
Haz Area Class and Group	CLI GP D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 50 HZ
	1.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	190.0 V @ 50 HZ
	460.0 V @ 60 HZ
	380.0 V @ 50 HZ
Agency Approvals	CSA EEV
	UL
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
Constant Torque Speed Range	6
Current @ Voltage	4.600 A @ 230.0 V
	4.640 A @ 208.0 V
	4.000 A @ 190.0 V
	2.300 A @ 460.0 V
	2.000 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	35WGL955
Layout	35LYQ643
Eff. date	10-25-2023
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-28-2021

Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	15.12 IN
Power Factor	72
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2	None

Nameplate

NP0887XPSLEV											
NO.				**CC**	010A						
S/N				**TEMP CODE**	T3C						
SPEC.	35-0000-1370			**INV.TYPE**	PWM						
CAT.NO.	VXM051542			**C HP FR**	60	**C HP TO**	90				
HP	1.5//1			**CT HZ FROM**	6			**CT HZ TO**	60		
VOLTS	230/460//190/380			**VT HZ FROM**	6			**VT HZ TO**	60		
AMPS	4.6/2.3//4.0/2		**MAG CUR**	2.5/1.25							
RPM	1770//1475		**MX RPM**	2700							
HZ	60//50	**PH**	3	**CL**	F	**NOM.EFF.**	86.5				
SER.F.	1.00	**DES**	B	**SL HZ**	1	**WK2**	0.174				
FRAME	56C	**RATING**	40C AMB-CONT								

AC Induction Motor Performance Data
Record # 87532
Typical performance - not guaranteed values

Winding: 35WGL955-R010	**Type:** 3522M	**Enclosure:** XPFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1.5//1	**Full Load Torque**	4.48 LB-FT
Volts			230/460//190/380	**Start Configuration**	direct on line
Full Load Amps			4.4/2.2//3.8/1.9	**Breakdown Torque**	17.1 LB-FT
R.P.M.			1760//1475	**Pull-up Torque**	9.2 LB-FT
Hz	60//50	**Phase**	3	**Locked-rotor Torque**	11.3 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	18.1 A
Service Factor (S.F.)			1	**No-load Current**	1.26 A
NEMA Nom. Eff.	86.5	**Power Factor**	73	**Line-line Res. @ 25ºC**	13.4 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	41°C
				Locked-rotor Power Factor	61.8
				Rotor inertia	0.159 lb-ft²

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	36	56	68	76	81	84
Efficiency	76.7	84.6	86.6	86.8	85.9	84.7
Speed	1792	1785	1777	1769	1760	1750
Line amperes	1.33	1.51	1.79	2.13	2.52	2.96

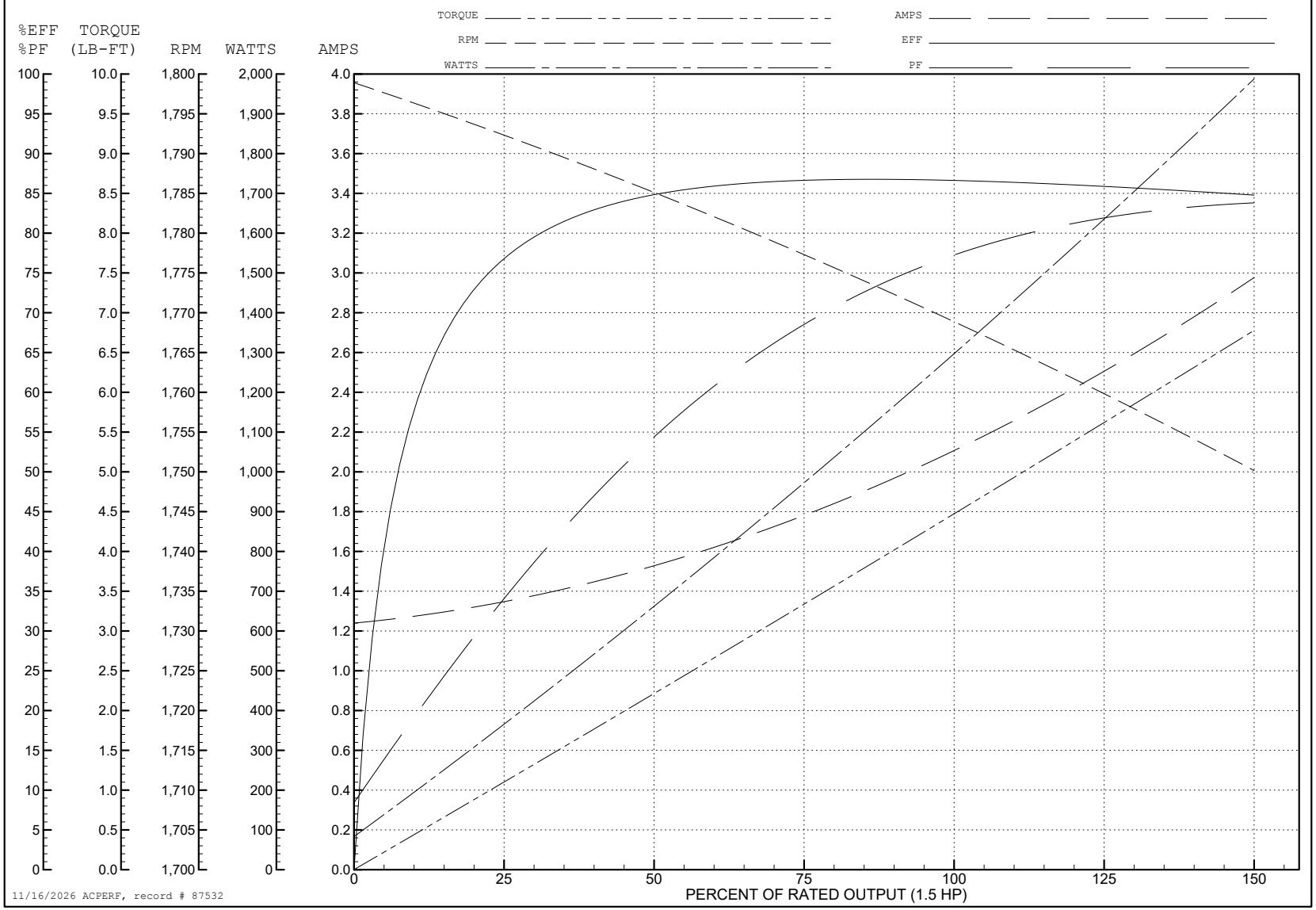
ABB Motors and Mechanical Inc.

WINDING # 35WGL955

1.5 HP 3 PH 60 HZ 1769 RPM 460 V 3522M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=17.1 PU=9.2 LR=11.3 LRA=18.1



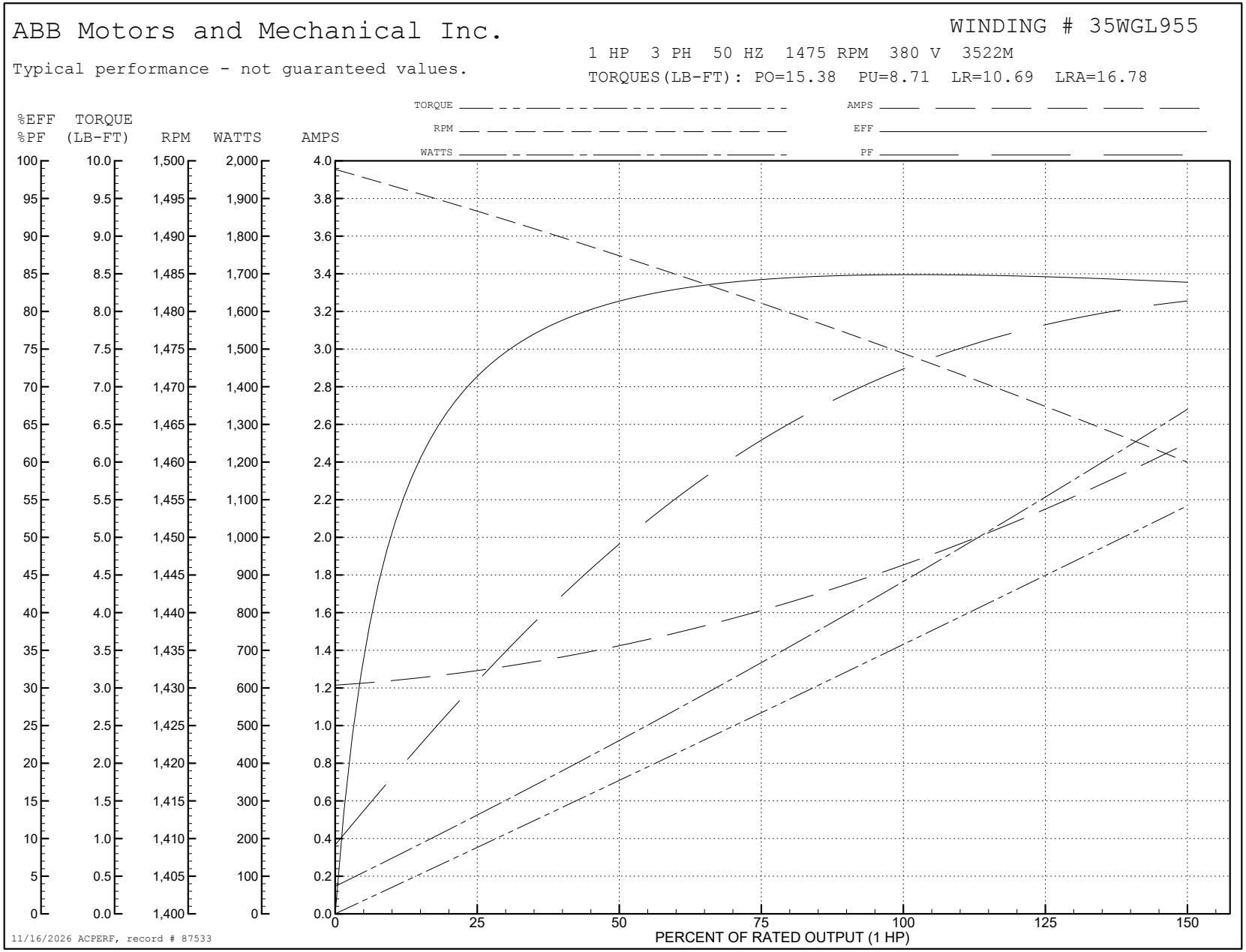
AC Induction Motor Performance Data
Record # 87533
Typical performance - not guaranteed values

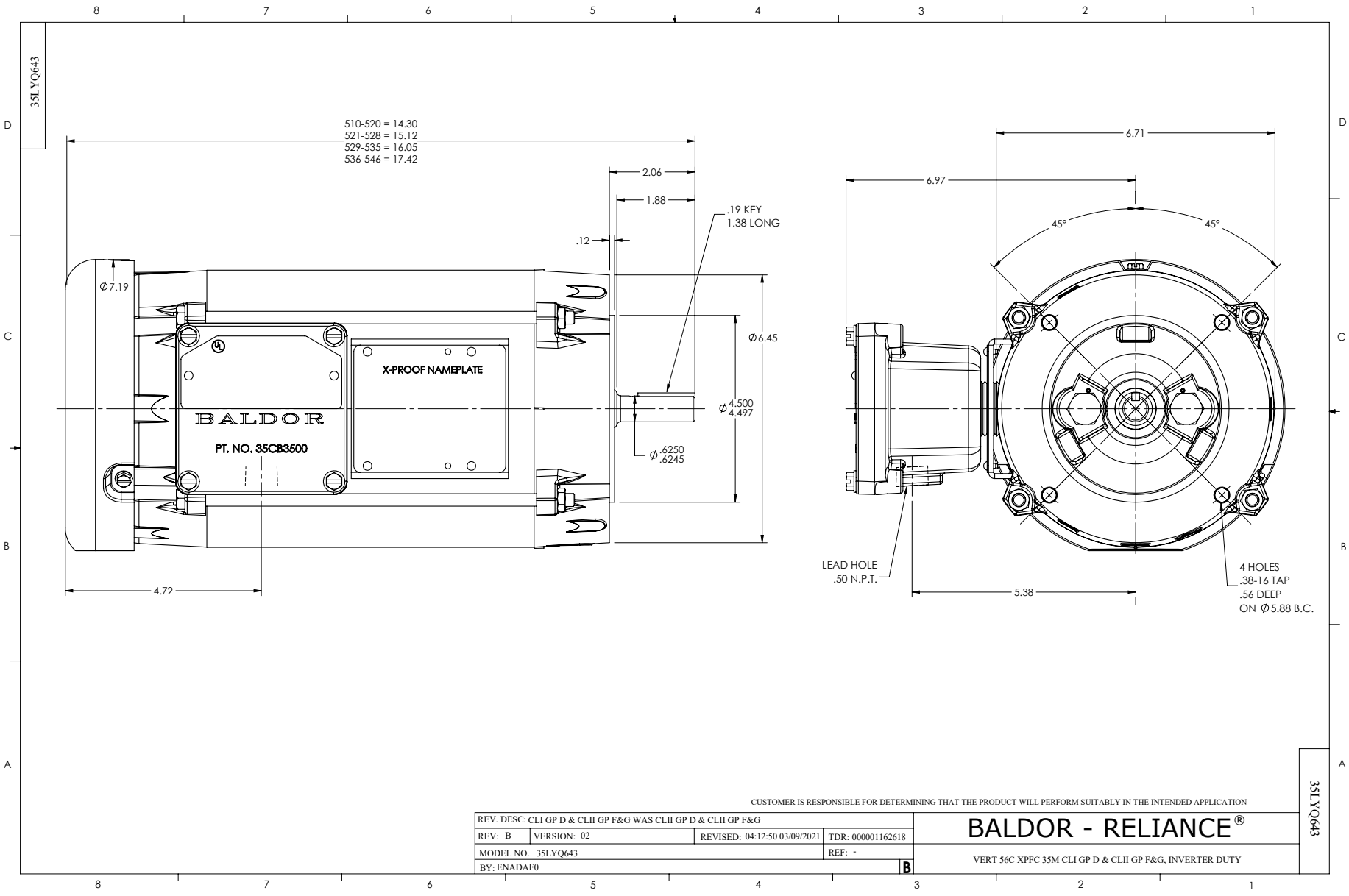
Winding: 35WGL955-R010	**Type:** 3522M	**Enclosure:** XPFC

Nameplate Data				**380 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			1.5//1	**Full Load Torque**	3.58 LB-FT
Volts			230/460//190/380	**Start Configuration**	direct on line
Full Load Amps			4.4/2.2//3.8/1.9	**Breakdown Torque**	15.38 LB-FT
R.P.M.			1760//1475	**Pull-up Torque**	8.71 LB-FT
Hz	60//50	**Phase**	3	**Locked-rotor Torque**	10.69 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	16.78 A
Service Factor (S.F.)			1	**No-load Current**	1.23 A
NEMA Nom. Eff.	86.5	**Power Factor**	73	**Line-line Res. @ 25ºC**	13.4 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	33°C
				Locked-rotor Power Factor	67.3
				Rotor inertia	0.159 lb-ft²

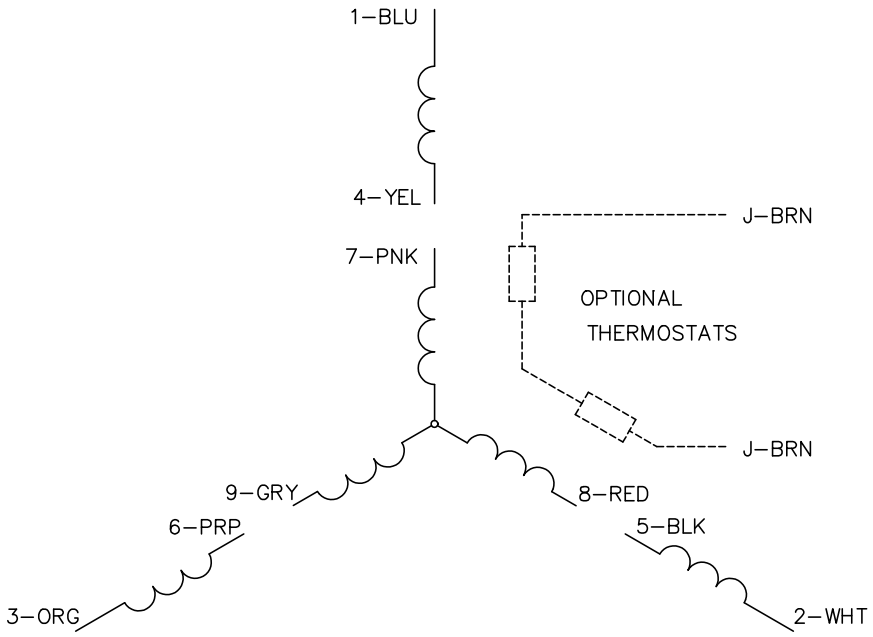
Load Characteristics 380 V, 50 Hz, 1 HP

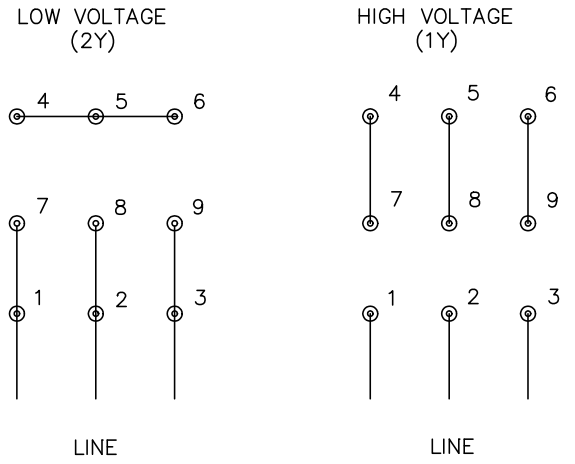
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	32	50	63	72	78	82
Efficiency	71.4	81.1	84.2	85.1	84.7	83.7
Speed	1493	1487	1481	1475	1467	1460
Line amperes	1.28	1.41	1.62	1.87	2.16	2.49


ABB Motors and Mechanical Inc.
WINDING # 35WGL955
Typical performance - not guaranteed values.
1 HP 3 PH 50 HZ 1475 RPM 380 V 3522M
TORQUES(LB-FT): PO=15.38 PU=8.71 LR=10.69 LRA=16.78
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/16/2026 ACPERF, record # 87533


35LYQ643
510-520 = 14.30
521-528 = 15.12
529-535 = 16.05
536-546 = 17.42
2.06
1.88
.19 KEY
1.38 LONG
.12
Ø7.19
Ø6.45
Ø4.500
4.497
Ø.6250
.6245
X-PROOF NAMEPLATE
BALDOR
PT. NO. 35CB3500
4.72
6.71
6.97
45°
45°
LEAD HOLE
.50 N.P.T.
5.38
4 HOLES
.38-16 TAP
.56 DEEP
ON Ø5.88 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CLI GP D & CLII GP F&G WAS CLII GP D & CLII GP F&G
REV: B
VERSION: 02
REVISED: 04:12:50 03/09/2021
TDR: 000001162618
MODEL NO. 35LYQ643
REF: -
BY: ENADAF0
B
BALDOR - RELIANCE®
VERT 56C XPFC 35M CLI GP D & CLII GP F&G, INVERTER DUTY
35LYQ643

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