ABB BALDOR RELIANCE

Customer information packet

VDRX050744

.75//.5HP, 1765//1470RPM, 3PH, 60//50HZ, 56C
Class - CLI GP C,D
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 C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	.500 HP @ 50 HZ
	.750 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ
	230.0 V @ 60 HZ
	190.0 V @ 50 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	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	2.420 A @ 208.0 V
	2.400 A @ 230.0 V
	2.200 A @ 190.0 V
	1.200 A @ 460.0 V
	1.100 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	-
Type	AC
Mech. spec.	35X748
Base	
Status	PRD/A
Elec. spec.	35WGG069
Layout	35LYX748
Eff. date	06-04-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	06-04-2025

Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	1.1 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	X3514M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.31 IN
Power Factor	74
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1470 rpm
	1765 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

NP1401XPSL											
NO.				**CC**							
S/N				**TEMP CODE**	T3C						
SPEC.	35X748G069G3			**INV.TYPE**	PWM						
CAT.NO.	VDRX050744			**C HP FR**	60	**C HP TO**	90				
HP	.75//.5			**CT HZ FROM**	6			**CT HZ TO**	60		
VOLTS	230/460//190/380			**VT HZ FROM**	6			**VT HZ TO**	60		
AMPS	2.4/1.2//2.2/1.1		**MAG CUR**	1.7/.85							
RPM	1765//1470		**MX RPM**	2700							
HZ	60//50	**PH**	3	**CL**	F	**NOM.EFF.**	82.5				
SER.F.	1.00	**DES**	B	**SL HZ**	1.2	**WK2**	0.101				
FRAME	56C	**RATING**	40C AMB-CONT								
	55C AMB @ 1.0 SF										
	1.15 SF SINEWAVE			NEMA MG-1 PT 5, IP55							

AC Induction Motor Performance Data
Record # 89842
Typical performance - not guaranteed values

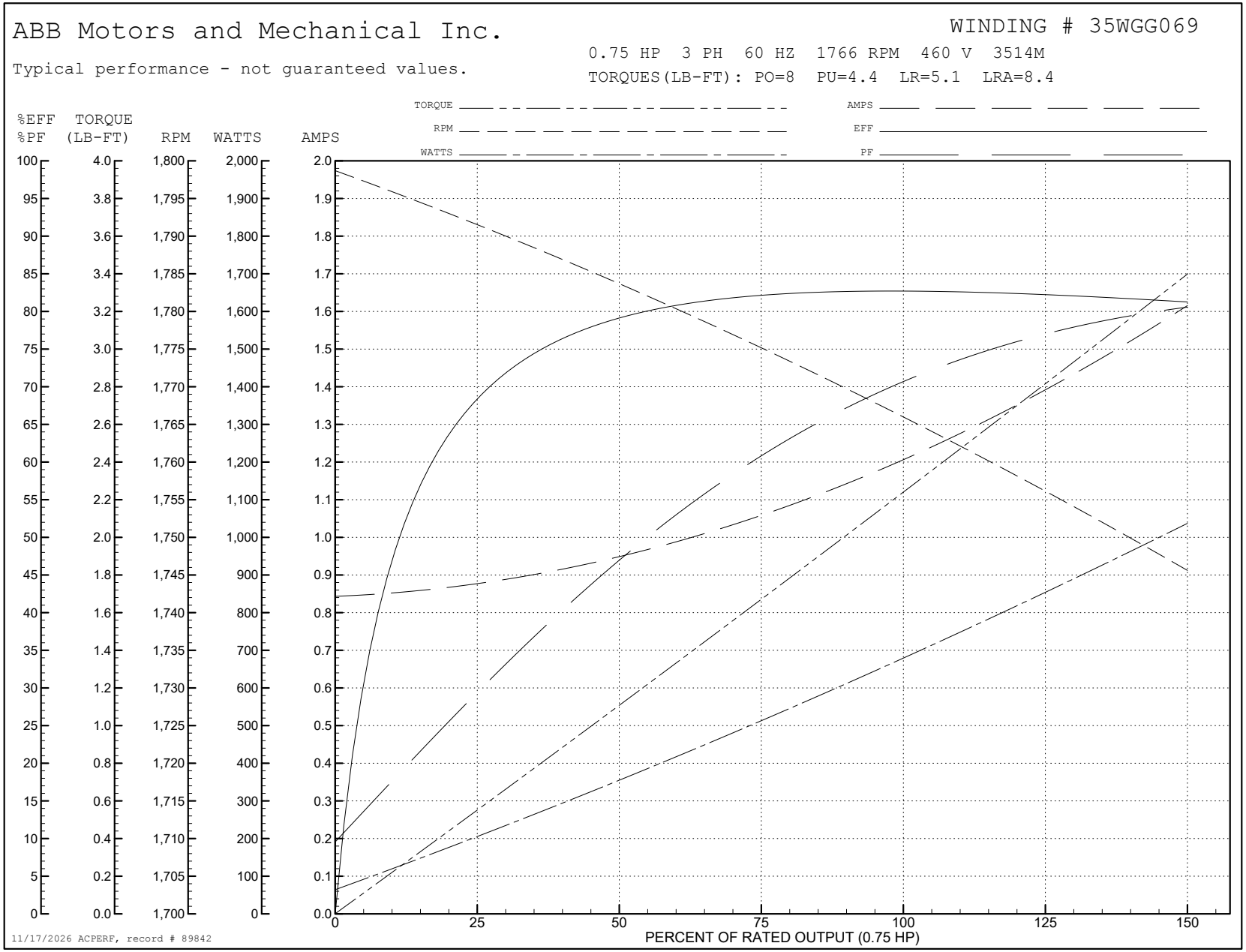
Winding: 35WGG069-R027	**Type:** 3514M	**Enclosure:** XPFC

Nameplate Data			
Rated Output (HP)			.75//.5
Volts			230/460//190/380
Full Load Amps			2.4/1.2//2.2/1.1
R.P.M.			1765//1470
Hz	60//50	**Phase**	3
NEMA Design Code	B	**KVA Code**	K
Service Factor (S.F.)			1
NEMA Nom. Eff.	82.5	**Power Factor**	74
Rating - Duty			40C AMB-CONT

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	2.24 LB-FT
Start Configuration	direct on line
Breakdown Torque	8 LB-FT
Pull-up Torque	4.4 LB-FT
Locked-rotor Torque	5.1 LB-FT
Starting Current	8.4 A
No-load Current	0.85 A
Line-line Res. @ 25ºC	30.3 Ω
Temp. Rise @ Rated Load	25°C
Locked-rotor Power Factor	66.8
Rotor inertia	0.101 lb-ft²

Load Characteristics 460 V, 60 Hz, 0.75 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	30	48	61	70	77	81
Efficiency	68.4	79.2	82.1	82.9	82.4	81.1
Speed	1791	1783	1775	1766	1757	1745
Line amperes	0.87	0.95	1.06	1.21	1.4	1.61


ABB Motors and Mechanical Inc.
WINDING # 35WGG069
Typical performance - not guaranteed values.
0.75 HP 3 PH 60 HZ 1766 RPM 460 V 3514M
TORQUES(LB-FT): PO=8 PU=4.4 LR=5.1 LRA=8.4
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.75 HP)
11/17/2026 ACPERF, record # 89842

AC Induction Motor Performance Data
Record # 89843
Typical performance - not guaranteed values

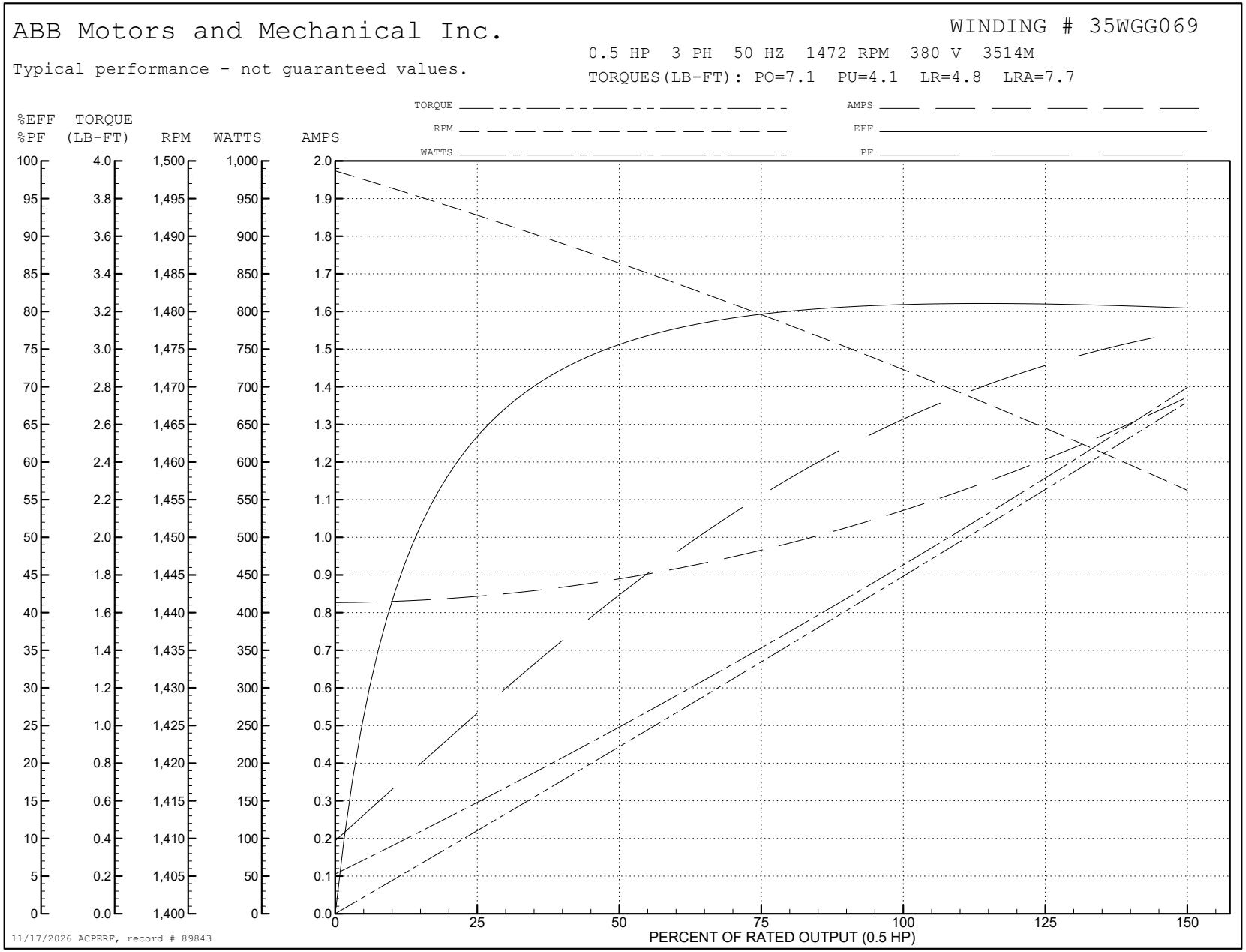
Winding: 35WGG069-R027	**Type:** 3514M	**Enclosure:** XPFC

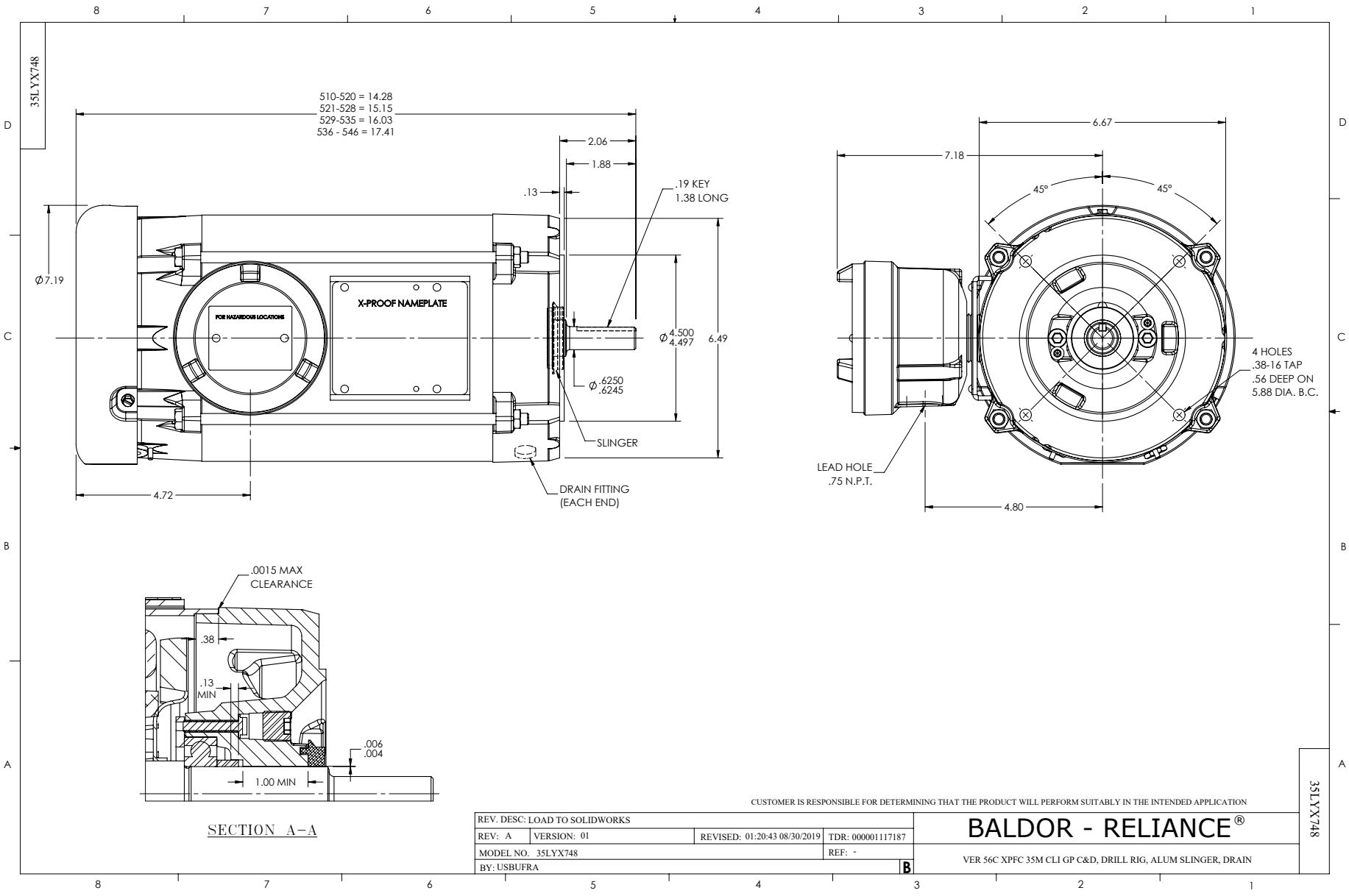
Nameplate Data			
Rated Output (HP)			.75//.5
Volts			230/460//190/380
Full Load Amps			2.4/1.2//2.2/1.1
R.P.M.			1765//1470
Hz	60//50	**Phase**	3
NEMA Design Code	B	**KVA Code**	K
Service Factor (S.F.)			1
NEMA Nom. Eff.	82.5	**Power Factor**	74
Rating - Duty			40C AMB-CONT

380 V, 50 Hz: High Voltage Connection	
Full Load Torque	1.79 LB-FT
Start Configuration	direct on line
Breakdown Torque	7.1 LB-FT
Pull-up Torque	4.1 LB-FT
Locked-rotor Torque	4.8 LB-FT
Starting Current	7.7 A
No-load Current	0.83 A
Line-line Res. @ 25ºC	30.3 Ω
Temp. Rise @ Rated Load	21°C
Locked-rotor Power Factor	72.2
Rotor inertia	0.101 lb-ft²

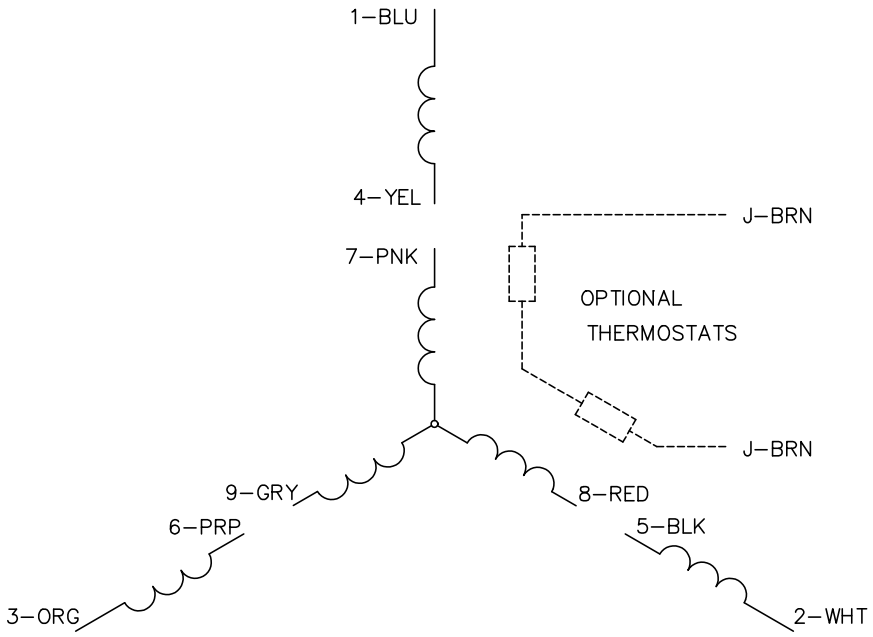
Load Characteristics 380 V, 50 Hz, 0.5 HP

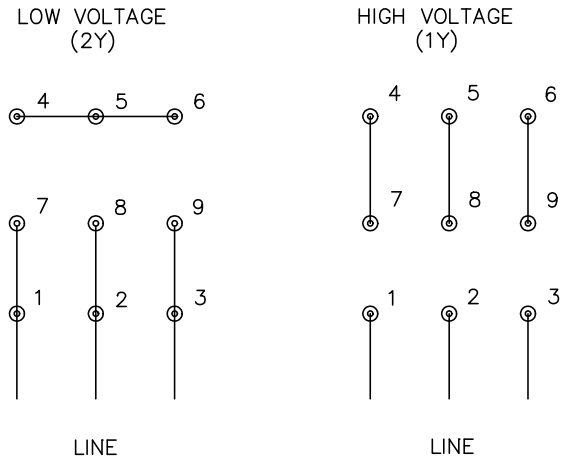
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	28	43	56	66	73	78
Efficiency	63.5	75.7	79.7	81.1	81.1	80.2
Speed	1492	1486	1480	1472	1465	1456
Line amperes	0.84	0.89	0.97	1.07	1.21	1.37


ABB Motors and Mechanical Inc.
WINDING # 35WGG069
Typical performance - not guaranteed values.
0.5 HP 3 PH 50 HZ 1472 RPM 380 V 3514M
TORQUES(LB-FT): PO=7.1 PU=4.1 LR=4.8 LRA=7.7
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.5 HP)
11/17/2026 ACPERF, record # 89843


35LYX748
510-520 = 14.28
521-528 = 15.15
529-535 = 16.03
536 - 546 = 17.41
2.06
1.88
.13
.19 KEY
1.38 LONG
Ø7.19
X-PROOF NAMEPLATE
FOR HAZARDOUS LOCATIONS
Ø 4.500
4.497
6.49
Ø .6250
.6245
SLINGER
DRAIN FITTING
(EACH END)
4.72
6.67
7.18
45°
45°
4 HOLES
.38-16 TAP
.56 DEEP ON
5.88 DIA. B.C.
LEAD HOLE
.75 N.P.T.
4.80
.0015 MAX
CLEARANCE
.38
.13
MIN
.006
.004
1.00 MIN
SECTION A–A
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD TO SOLIDWORKS
REV: A
VERSION: 01
REVISED: 01:20:43 08/30/2019
TDR: 000001117187
MODEL NO. 35LYX748
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
VER 56C XPFC 35M CLI GP C&D, DRILL RIG, ALUM SLINGER, DRAIN
35LYX748

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