ABB BALDOR RELIANCE

Customer information packet

EM3309T-G

5HP, 1160RPM, 3PH, 60HZ, 215T, 3744M, OPSB, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	215T
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	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	UR
	CSA
	CSA EEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	7.400 A @ 460.0 V
	14.800 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	V
Type	AC
Mech. spec.	37J839
Base	
Status	PRD/A
Elec. spec.	37WGS521
Layout	37LYJ839
Eff. date	05-11-2026
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	11-29-2011

High Voltage Full Load Amps	7.4 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3744M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	17.45 IN
Power Factor	71
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1160 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.	EM3309T-G									
SPEC.	37J839S521G1									
HP	5									
VOLTS	230/460									
AMPS	14.8/7.4									
RPM	1160									
FRAME	215T	**HZ**	60			**PH**	3			
SF	1.15	**CODE**	K	**DES**	A	**CLASS**	H			
NEMA NOM. EFF	89.5	**PF**	71							
RATING	40C AMB-CONT									
CC	010A									
ENCL	OPSB	**SN**								
DE	6307	**ODE**	6206							
VPWM INVERTER READY										
CT30-60(2:1) VT3-60(20:1)										
USABLE AT	50Hz 5HP 190/380V 17.2/8.6A									SF1.0

AC Induction Motor Performance Data
Record # 62644
Typical performance - not guaranteed values

Winding: 37WGS521-R002	**Type:** 3744M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			5	**Full Load Torque**	22.5 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			14.8/7.4	**Breakdown Torque**	77.9 LB-FT
R.P.M.			1160	**Pull-up Torque**	47.4 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	54.8 LB-FT
NEMA Design Code	A	**KVA Code**	K	**Starting Current**	53 A
Service Factor (S.F.)			1.15	**No-load Current**	3.84 A
NEMA Nom. Eff.	89.5	**Power Factor**	71	**Line-line Res. @ 25ºC**	1.74 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	33°C
S.F. Amps				**Temp. Rise @ S.F. Load**	40°C
				Locked-rotor Power Factor	22.7
				Rotor inertia	1.09 LB-FT2

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	33	53	65	71	75	76	73
Efficiency	84.7	89.4	89.7	89.7	88.5	86.5	89
Speed	1192	1184	1174	1165	1154	1139	1158
Line amperes	4.14	4.95	6.08	7.36	8.92	10.7	8.3

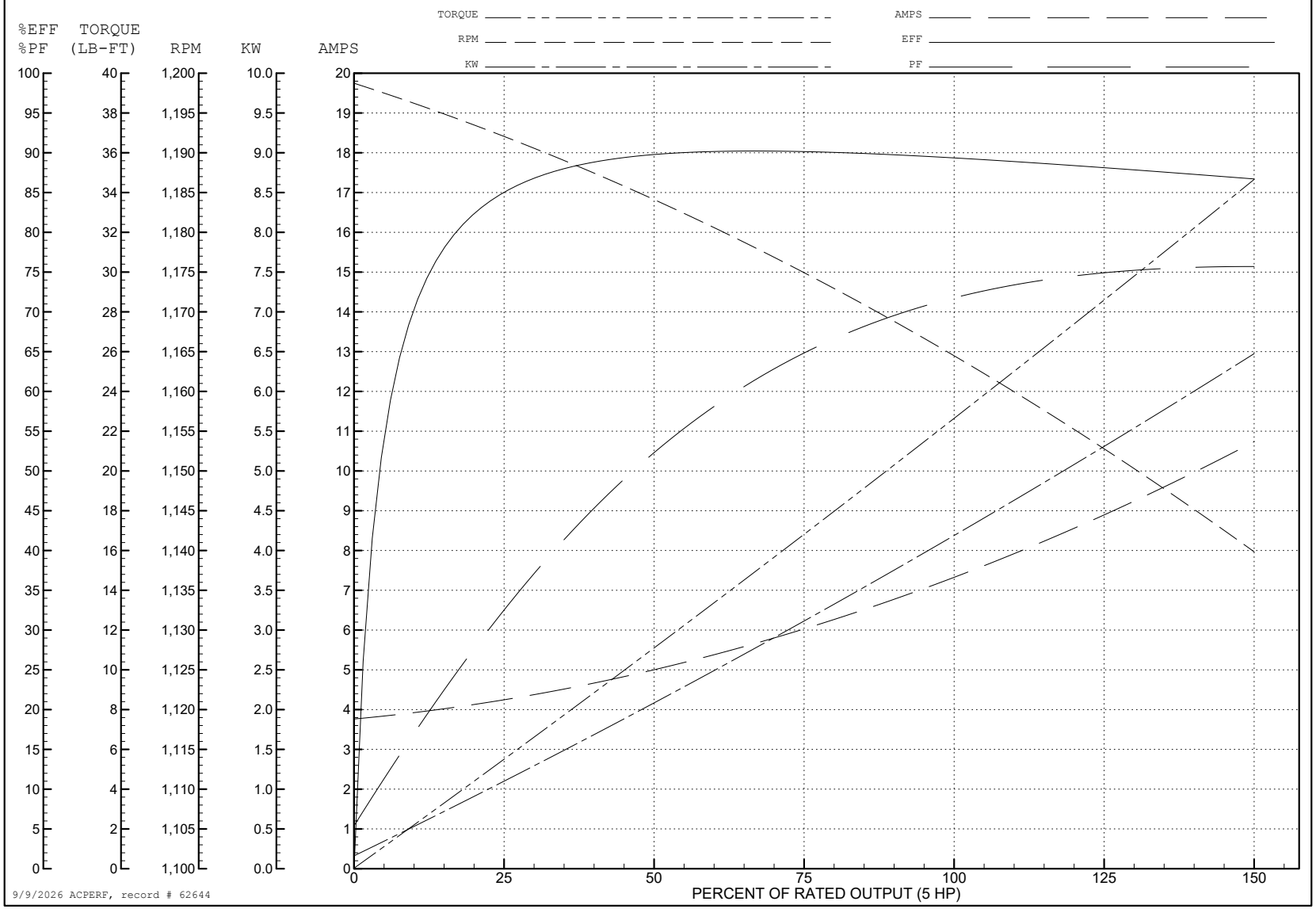
ABB Motors and Mechanical Inc.

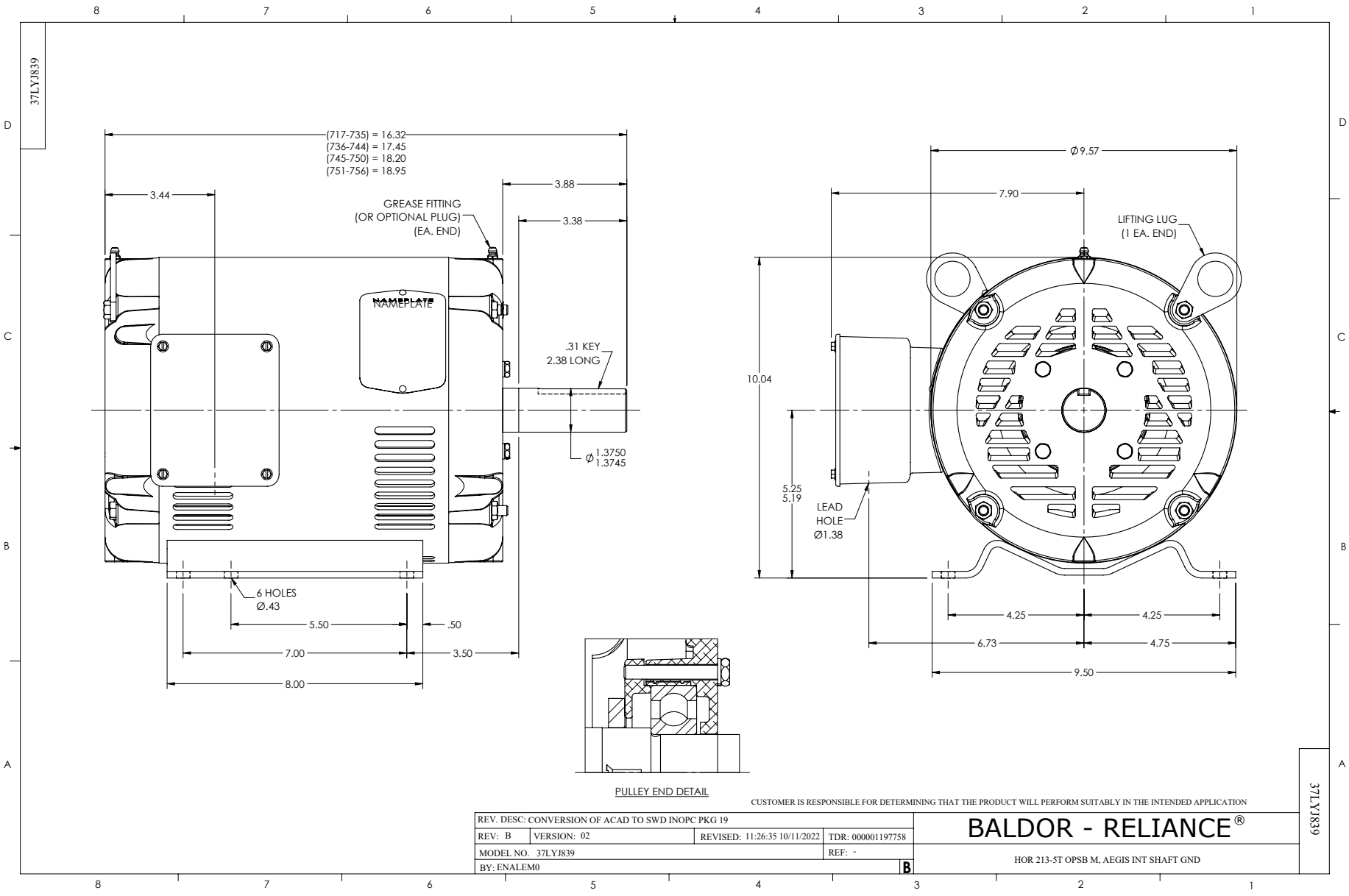
WINDING # 37WGS521

5 HP 3 PH 60 HZ 1160 RPM 460 V 3744M

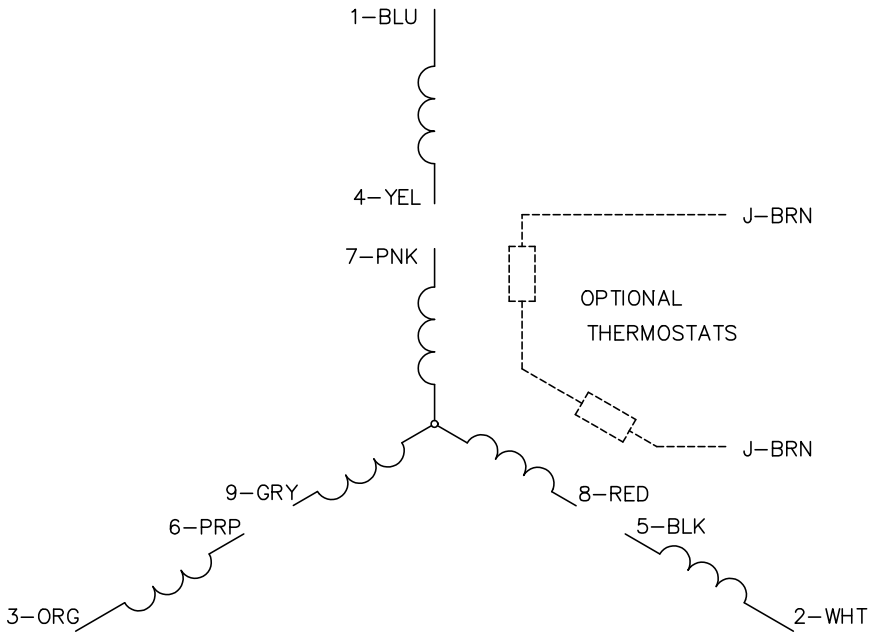
Typical performance - not guaranteed values.

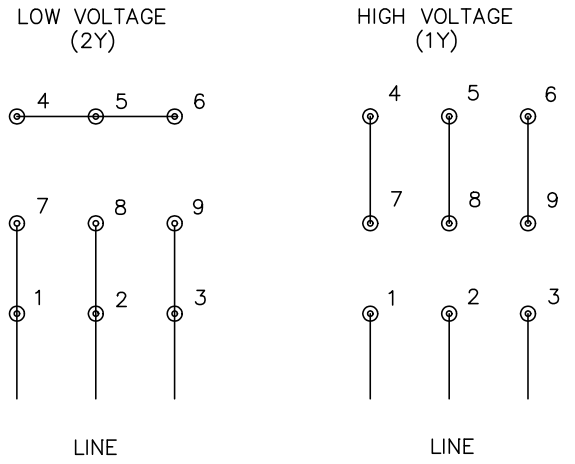
TORQUES(LB-FT): PO=77.9 PU=47.4 LR=54.8 LRA=53




37LYJ839
(717-735) = 16.32
(736-744) = 17.45
(745-750) = 18.20
(751-756) = 18.95
3.44
3.88
3.38
GREASE FITTING
(OR OPTIONAL PLUG)
(EA. END)
NAMEPLATE
.31 KEY
2.38 LONG
Ø 1.3750
1.3745
6 HOLES
Ø.43
5.50
.50
7.00
3.50
8.00
Ø9.57
7.90
LIFTING LUG
(1 EA. END)
10.04
5.25
5.19
LEAD
HOLE
Ø1.38
4.25
4.25
6.73
4.75
9.50
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERSION OF ACAD TO SWD INOPC PKG 19
REV: B
VERSION: 02
REVISED: 11:26:35 10/11/2022
TDR: 000001197758
MODEL NO. 37LYJ839
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HOR 213-5T OPSB M, AEGIS INT SHAFT GND
37LYJ839

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