ABB BALDOR RELIANCE

Customer information packet

EM3709T-G

7.5HP, 3520RPM, 3PH, 60HZ, 213T, 3728M, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	213T
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	CSA EEV
	NEMA PREMIUM
	UR
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	9.000 A @ 460.0 V
	19.000 A @ 208.0 V
	18.000 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 Shaft Indicator	None

Part Detail

Revision	E
Type	AC
Mech. spec.	37J838
Base	
Status	PRD/A
Elec. spec.	37WGL869
Layout	37LYJ838
Eff. date	09-23-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	01-28-2021

Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3728M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	17.89 IN
Power Factor	84
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 Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3520 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.	EM3709T-G								
SPEC	37J838L869G1								
HP	7.5								
VOLTS	230/460								
AMPS	18/9								
RPM	3520								
FRAME	213T	**HZ**	60			**PH**	3		
SF	1.15	**CODE**	J	**DES**	A	**CLASS**	H		
NEMA NOM. EFF	89.5	**PF**	84						
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	**SER**							
DE	6307	**ODE**	6206						
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 7.5HP 190/380V 22/11A								SF1.0

AC Induction Motor Performance Data
Record # 86824
Preliminary Data Sheet

Winding: 37WGL869-R006	**Type:** 3728M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			7.5	**Full Load Torque**	11.2 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			18/9	**Breakdown Torque**	40.3 LB-FT
R.P.M.			3520	**Pull-up Torque**	19.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	21.8 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	68.4 A
Service Factor (S.F.)			1.15	**No-load Current**	3.52 A
NEMA Nom. Eff.	89.5	**Power Factor**	84	**Line-line Res. @ 25ºC**	1.19 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	50°C
S.F. Amps			20/10	**Temp. Rise @ S.F. Load**	63°C
				Locked-rotor Power Factor	38.1
				Rotor inertia	0.255 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	49	71	81	86	88	89	87
Efficiency	83.9	89.7	91	90.9	90.2	89.2	90.3
Speed	3580	3560	3540	3518	3494	3468	3500
Line amperes	4.1	5.4	7.06	8.96	11	13.2	10.2

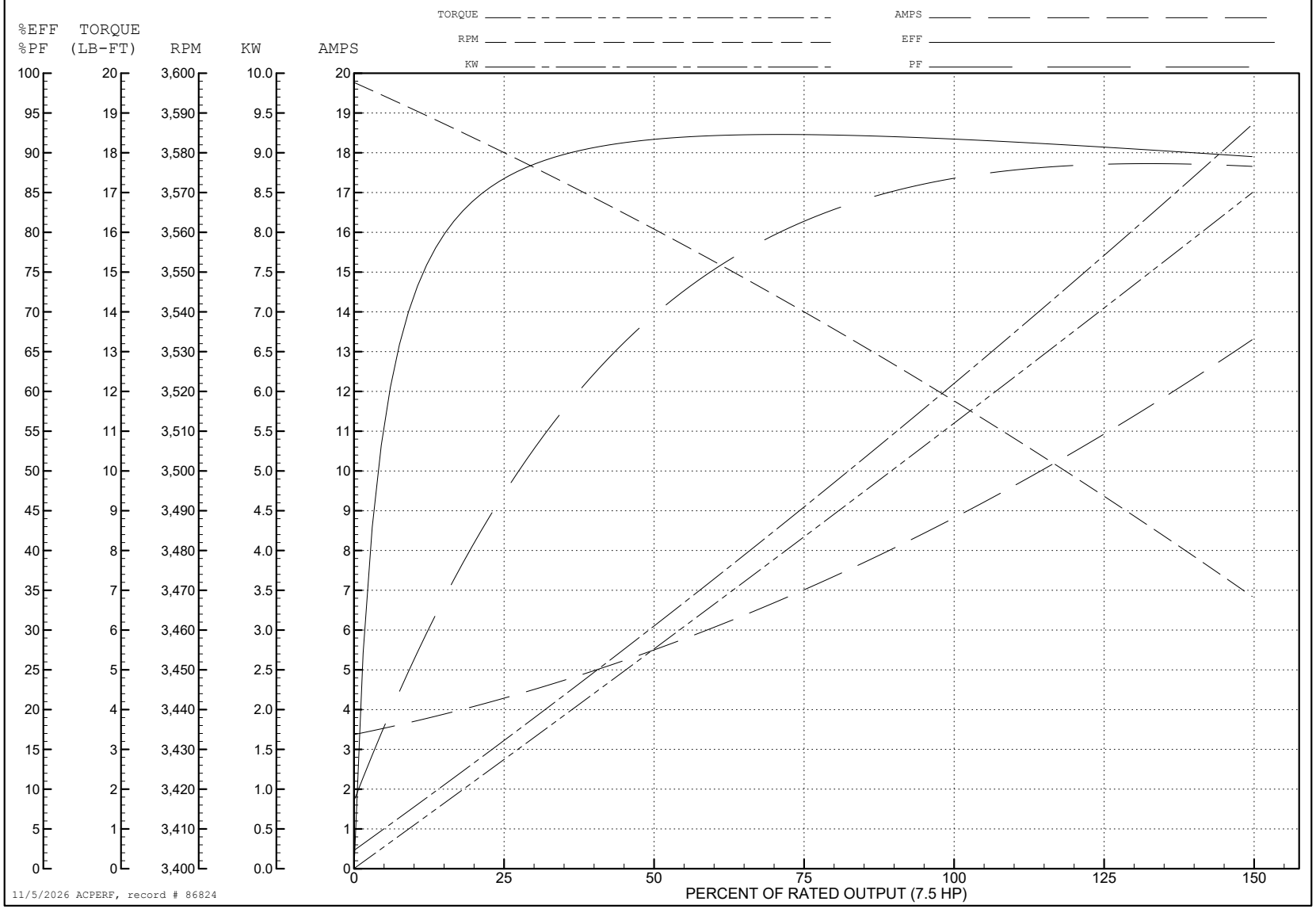
ABB Motors and Mechanical Inc.

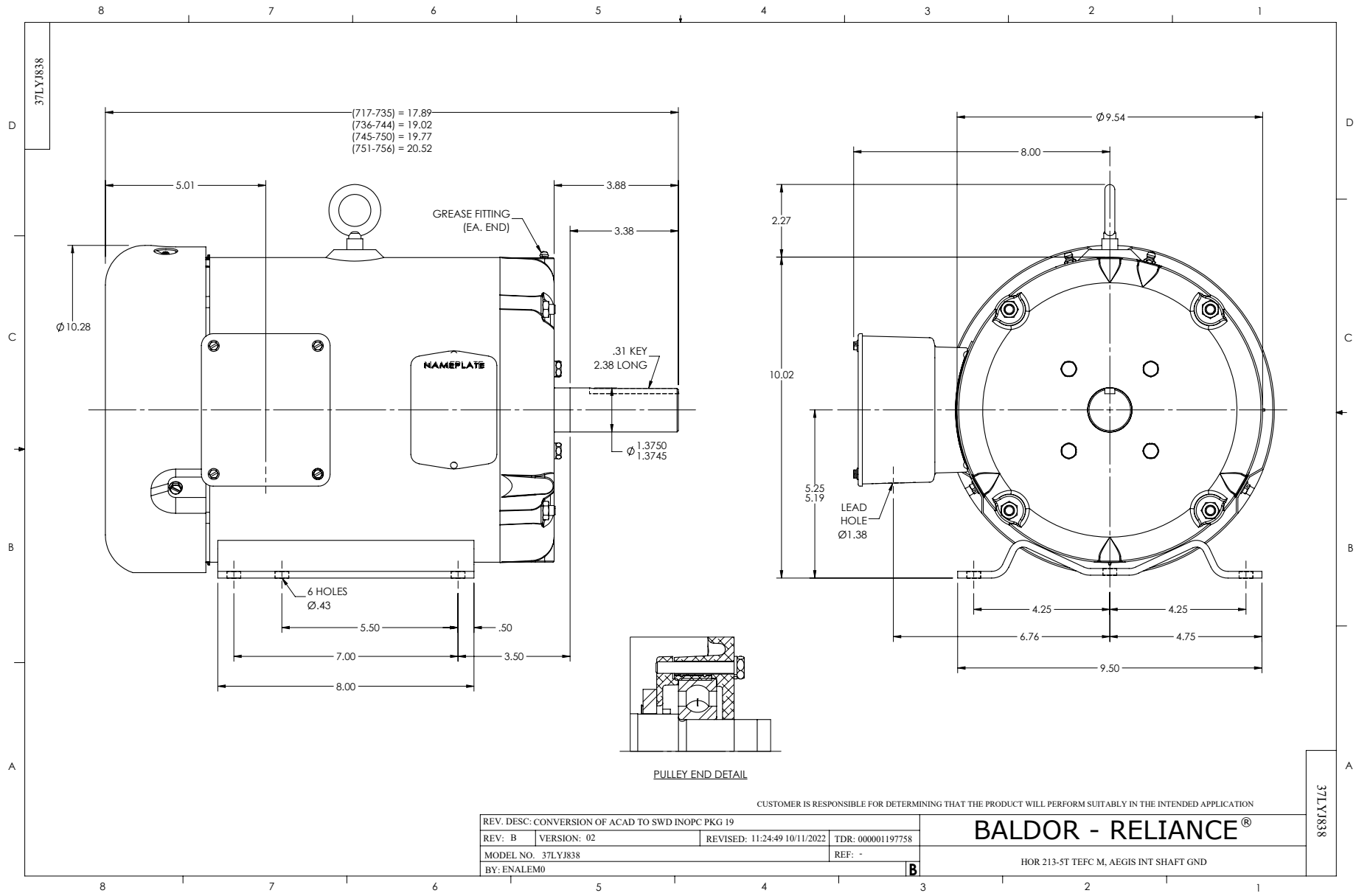
WINDING # 37WGL869

7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

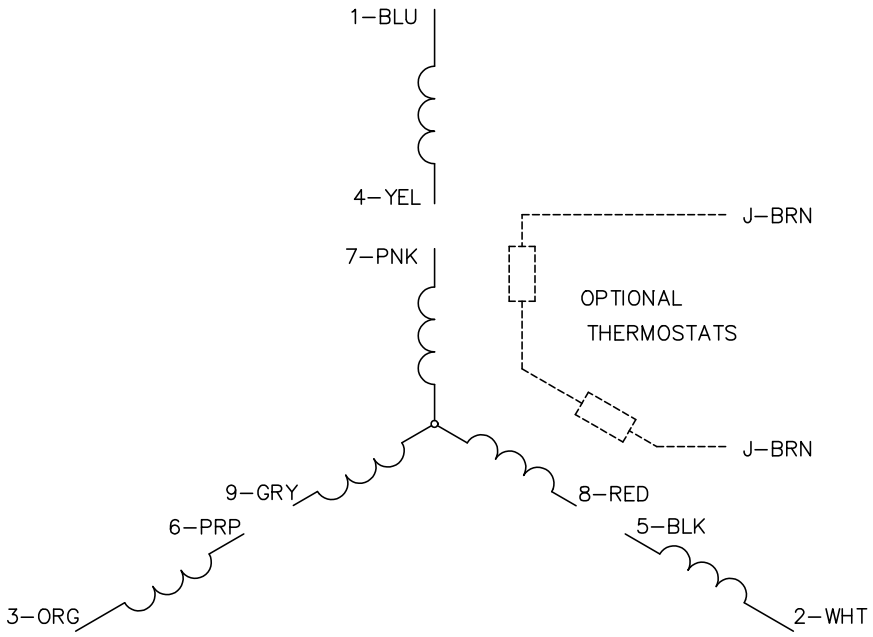
Typical performance - not guaranteed values.

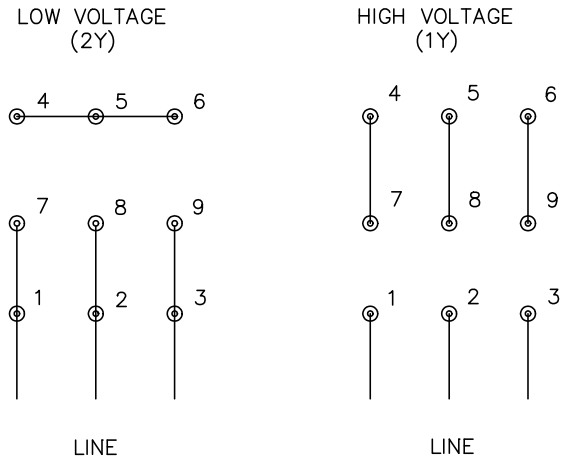
TORQUES(LB-FT): PO=40.3 PU=19.7 LR=21.8 LRA=68.4




37LYJ838
(717-735) = 17.89
(736-744) = 19.02
(745-750) = 19.77
(751-756) = 20.52
5.01
3.88
3.38
GREASE FITTING
(EA. END)
Ø10.28
NAMEPLATE
.31 KEY
2.38 LONG
Ø1.3750
1.3745
6 HOLES
Ø.43
5.50
.50
7.00
3.50
8.00
Ø9.54
8.00
2.27
10.02
5.25
5.19
LEAD
HOLE
Ø1.38
4.25
4.25
6.76
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: 11:24:49 10/11/2022
TDR: 000001197758
MODEL NO. 37LYJ838
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HOR 213-5T TEFC M, AEGIS INT SHAFT GND
37LYJ838

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