ABB BALDOR RELIANCE

Customer information packet

CEM3311T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3734M, OPSB
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	213TC
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	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
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	19.600 A @ 230.0 V
	20.600 A @ 208.0 V
	9.800 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.8 a

Part Detail

Revision	F
Type	AC
Mech. spec.	37B102
Base	
Status	PRD/A
Elec. spec.	37WGL863
Layout	37LYB102
Eff. date	06-24-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-29-2021

Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
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	3734M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	17.07 IN
Power Factor	79
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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.	CEM3311T								
SPEC.	37B102L863G1								
HP	7.5								
VOLTS	230/460								
AMPS	19.6/9.8								
RPM	1770								
FRAME	213TC	**HZ**	60			**PH**	3		
SF	1.15	**CODE**	J	**DES**	A	**CLASS**	F		
NEMA NOM. EFF	91	**PF**	79						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPSB	**SN**							
DE	6307	**ODE**	6206						
VPWM INVERTER READY	SFA 22.18/11.09								
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 7.5HP 190/380V 23.2/11.6A								SF1.0

AC Induction Motor Performance Data
Record # 85452
Preliminary Data Sheet

Winding: 37WGL863-R001	**Type:** 3734M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			7.5	**Full Load Torque**	22.2 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			19.6/9.8	**Breakdown Torque**	74.8 LB-FT
R.P.M.			1770	**Pull-up Torque**	37.1 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	45.4 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	72 A
Service Factor (S.F.)			1.15	**No-load Current**	4.87 A
NEMA Nom. Eff.	91	**Power Factor**	79	**Line-line Res. @ 25ºC**	1.67 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	35°C
S.F. Amps			22.0/11.0	**Temp. Rise @ S.F. Load**	47°C
				Locked-rotor Power Factor	45.8
				Rotor inertia	0.836 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	39	60	73	79	82	83	81
Efficiency	85	90.1	91.1	90.9	90.1	89	90.3
Speed	1793	1786	1779	1772	1764	1755	1766
Line amperes	5.34	6.47	7.99	9.87	11.9	14.2	11.1

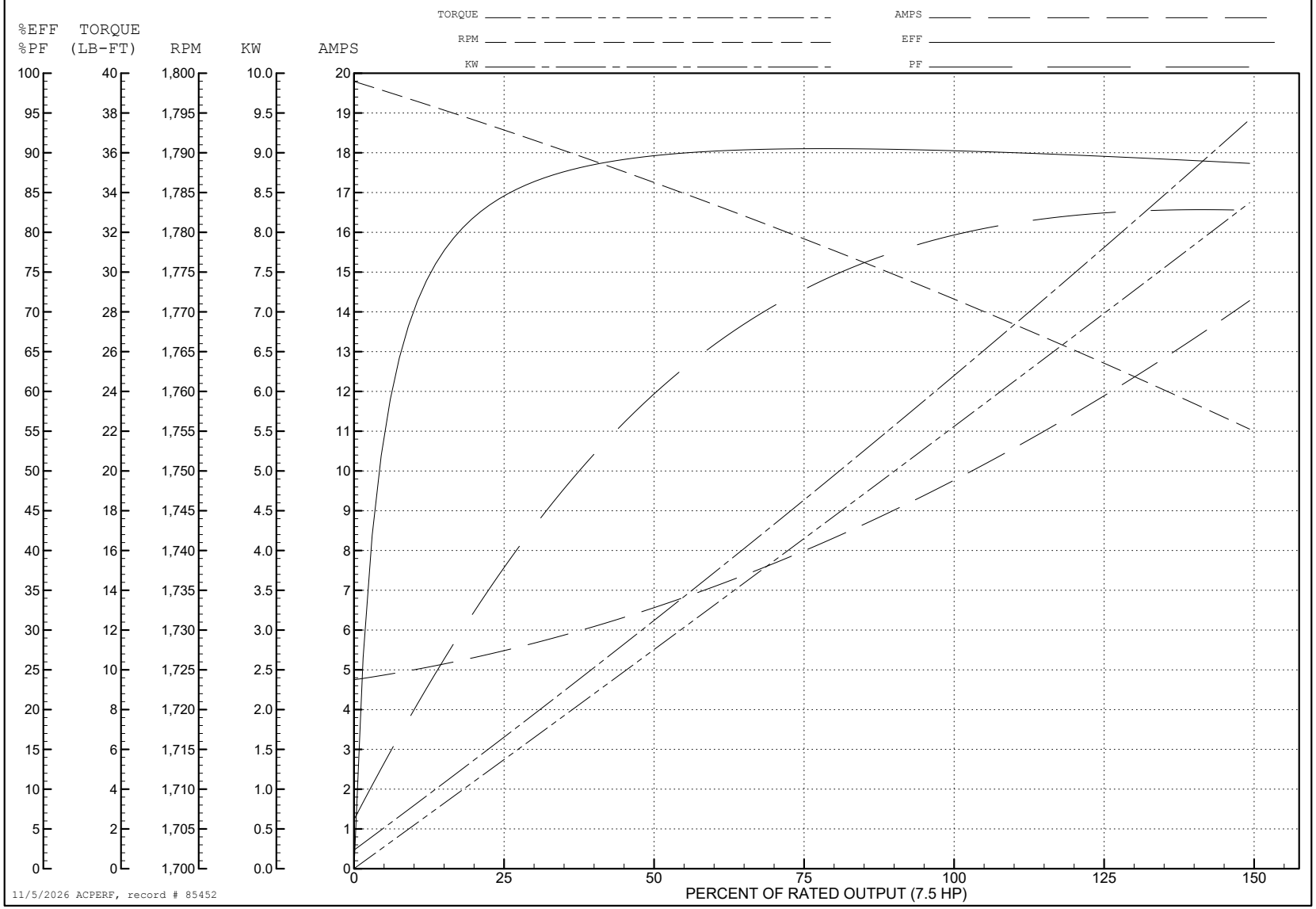
ABB Motors and Mechanical Inc.

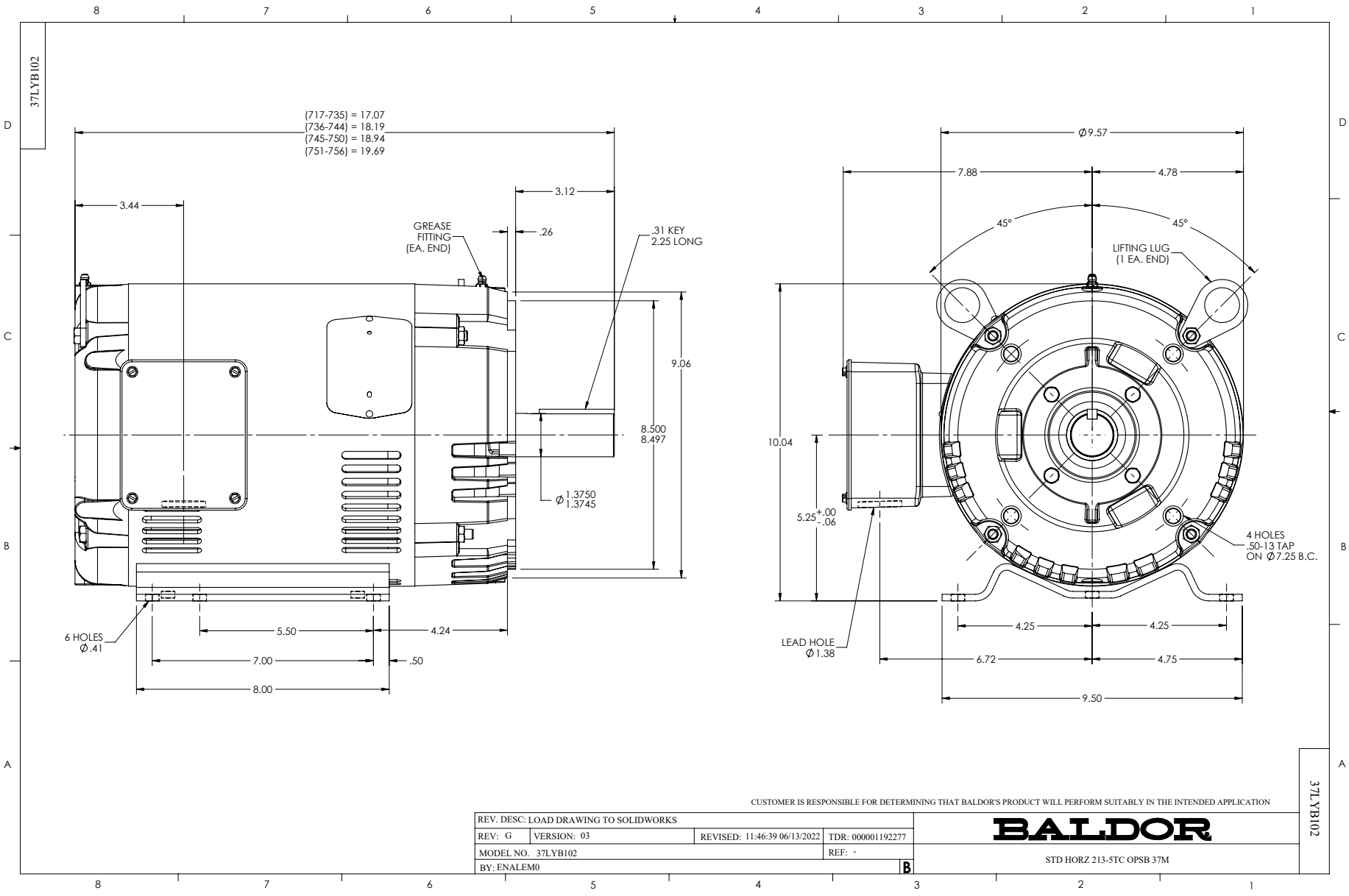
WINDING # 37WGL863

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3734M

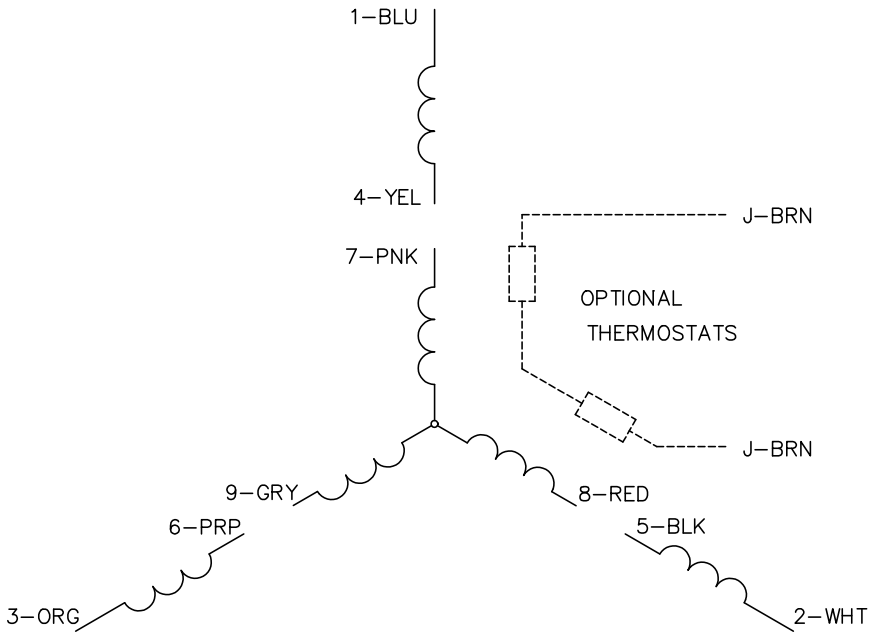
Typical performance - not guaranteed values.

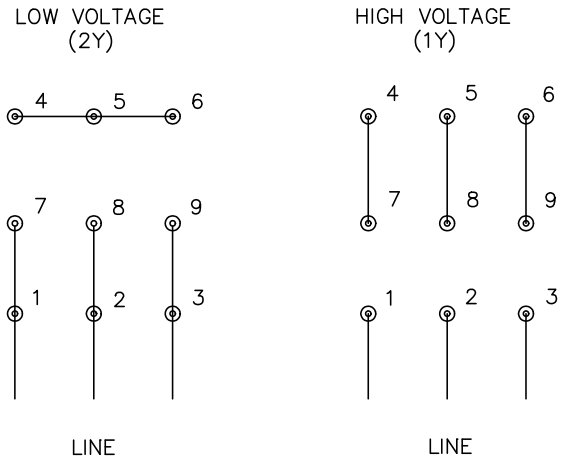
TORQUES(LB-FT): PO=74.8 PU=37.1 LR=45.4 LRA=72




37LYB102
(717-735) = 17.07
(736-744) = 18.19
(745-750) = 18.94
(751-756) = 19.69
3.44
3.12
.26
GREASE FITTING (EA. END)
.31 KEY 2.25 LONG
9.06
8.500
8.497
Ø1.3750
Ø1.3745
6 HOLES Ø.41
5.50
4.24
7.00
.50
8.00
Ø9.57
7.88
4.78
45°
45°
LIFTING LUG (1 EA. END)
10.04
5.25 +.00 -.06
4 HOLES .50-13 TAP ON Ø7.25 B.C.
LEAD HOLE Ø1.38
4.25
4.25
6.72
4.75
9.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: G
VERSION: 03
REVISED: 11:46:39 06/13/2022
TDR: 000001192277
MODEL NO. 37LYB102
REF: -
BY: ENALEM0
B
BALDOR
STD HORZ 213-5TC OPSB 37M
37LYB102

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