ABB BALDOR RELIANCE

Customer information packet

VEM3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Iron
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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	19.000 A @ 230.0 V
	20.000 A @ 208.0 V
	9.500 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a

Part Detail

Revision	G
Type	AC
Mech. spec.	07G082
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYG082
Eff. date	05-28-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	02-08-2021

Insulation Class	F
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	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.20 IN
Power Factor	81
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

NP3441LUA										
CAT.NO.	VEM3770T									
SPEC	07G082T510									
HP	7.5									
VOLTS	230/460									
AMPS	19/9.5									
RPM	1770									
FRAME	213TC	**HZ**	60			**PH**	3			
SF	1.15	**CODE**	J	**DES**	A	**CLASS**	F			
NEMA NOM. EFF	91.7	**PF**	81							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	**SER**								
DE	6307	**ODE**	6206							
VPWM INVERTER READY	SFA 21.4/10.7									
CT6-60H(10:1)VT3-60H(20:1										
	50HZ 7.5HP 190/380V 22.4/11.2A									SF1.0

AC Induction Motor Performance Data
Record # 85534
Preliminary Data Sheet

Winding: 07WGT510-R001	**Type:** 0738M	**Enclosure:** TEFC

Nameplate Data			
Rated Output (HP)			7.5
Volts			230/460
Full Load Amps			19/9.5
R.P.M.			1770
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	J
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	91.7	**Power Factor**	81
Rating - Duty			40C AMB-CONT
S.F. Amps			21.4/10.7

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	22.3 LB-FT
Start Configuration	direct on line
Breakdown Torque	69.1 LB-FT
Pull-up Torque	28.7 LB-FT
Locked-rotor Torque	39.1 LB-FT
Starting Current	67.4 A
No-load Current	4.07 A
Line-line Res. @ 25ºC	1.55 Ω
Temp. Rise @ Rated Load	48°C
Temp. Rise @ S.F. Load	62°C
Locked-rotor Power Factor	41.2
Rotor inertia	0.934 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	44	66	76	81	84	85	83
Efficiency	88	91.7	92.2	91.7	90.7	89.3	90.9
Speed	1792	1785	1777	1769	1759	1749	1761
Line amperes	4.61	5.85	7.48	9.43	11.6	13.9	10.7

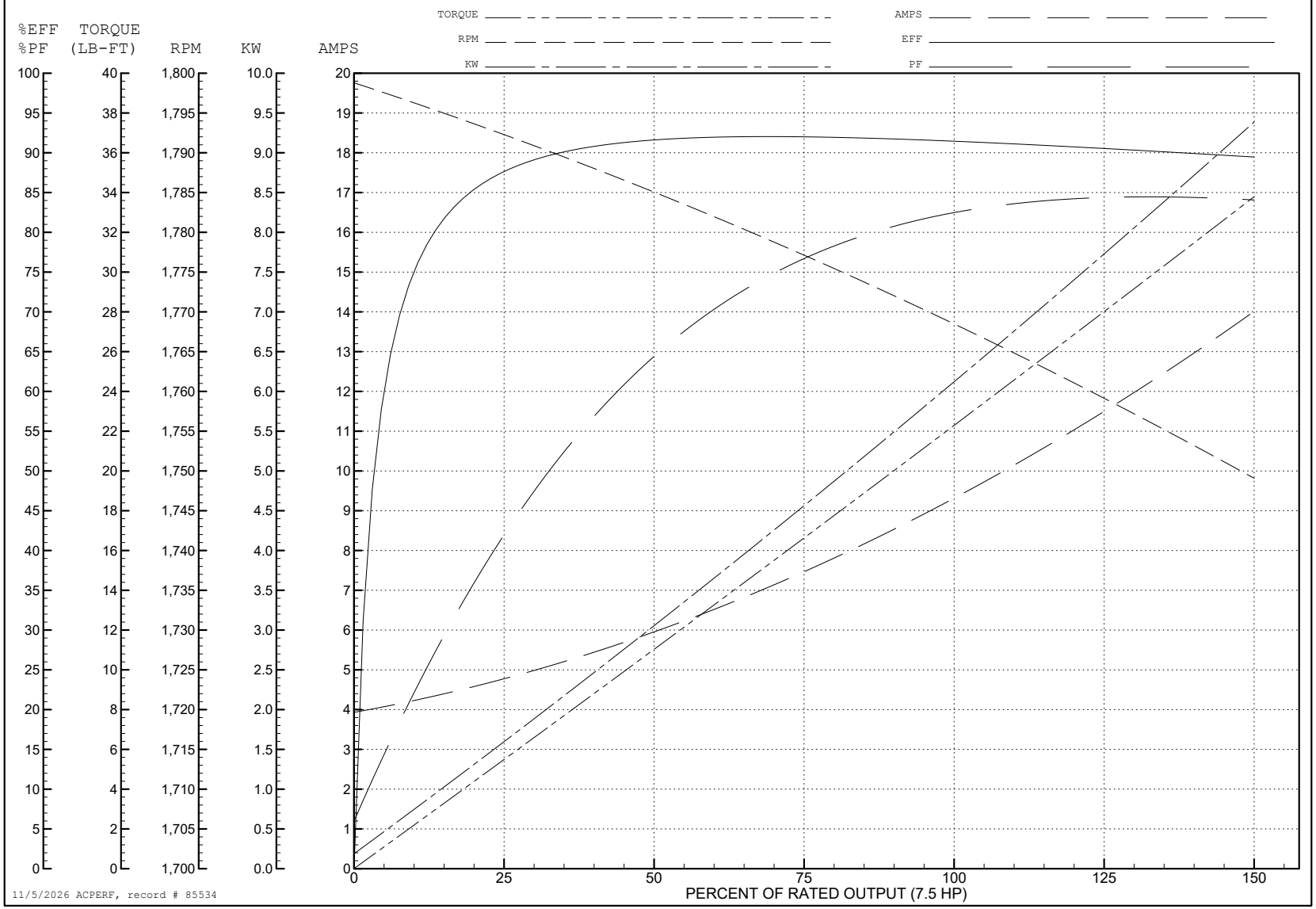
ABB Motors and Mechanical Inc.

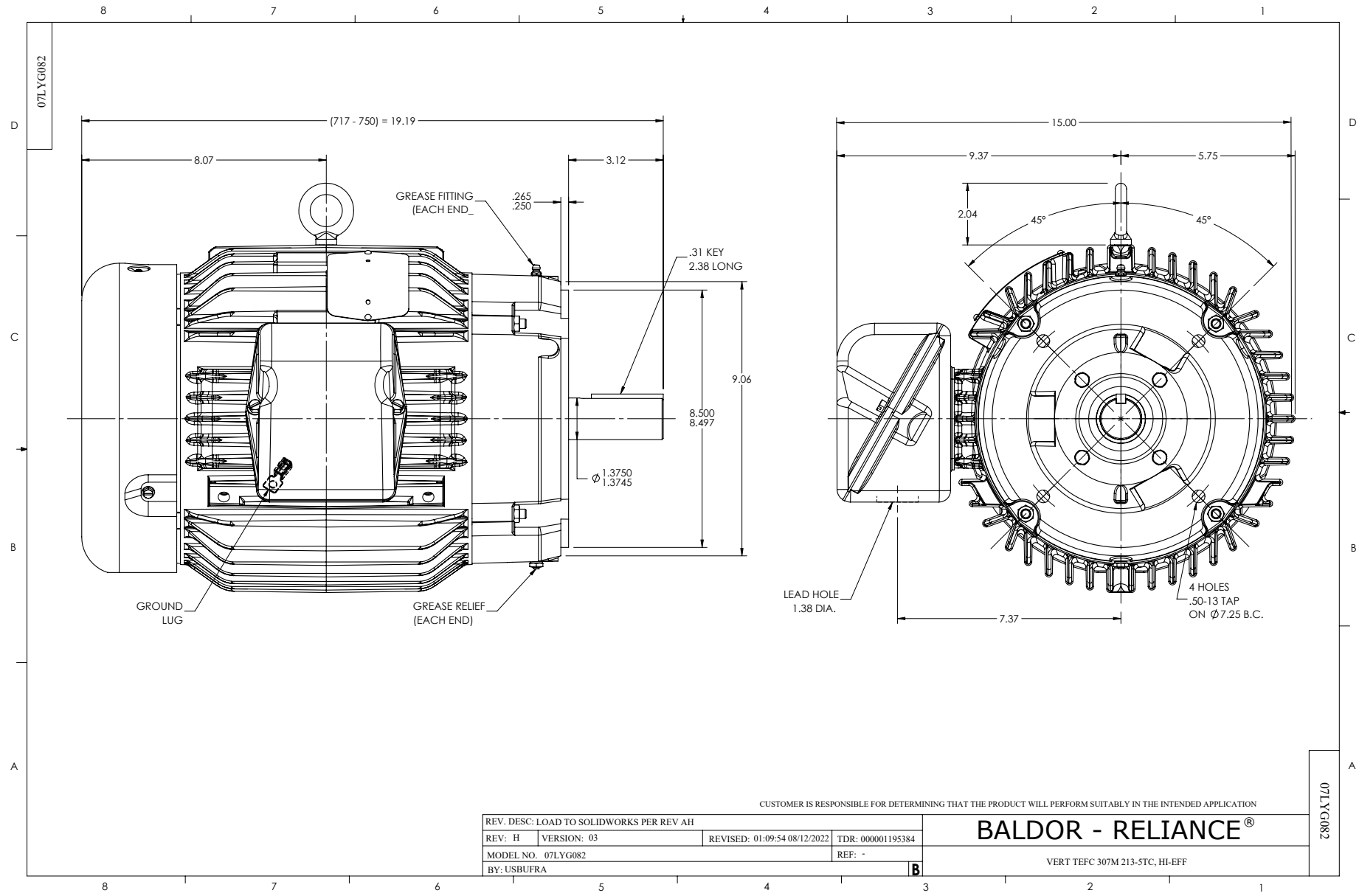
WINDING # 07WGT510

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 0738M

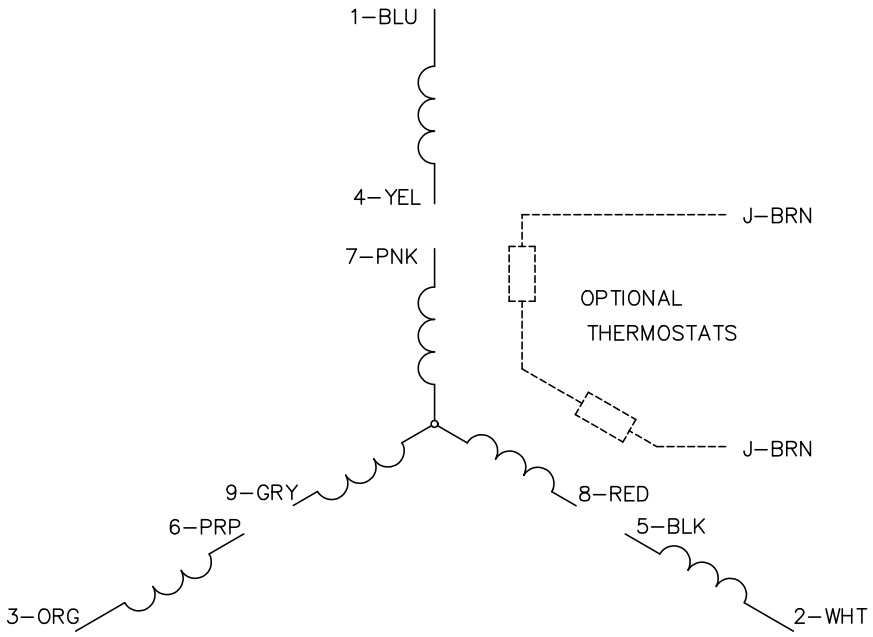
Typical performance - not guaranteed values.

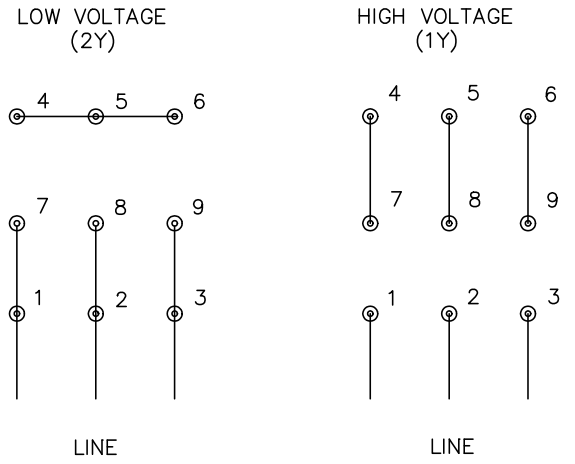
TORQUES(LB-FT): PO=69.1 PU=28.7 LR=39.1 LRA=67.4




07LYG082
(717 - 750) = 19.19
8.07
3.12
GREASE FITTING (EACH END_
.265
.250
.31 KEY
2.38 LONG
9.06
8.500
8.497
Ø 1.3750
1.3745
GROUND LUG
GREASE RELIEF (EACH END)
15.00
9.37
5.75
2.04
45°
45°
LEAD HOLE
1.38 DIA.
7.37
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD TO SOLIDWORKS PER REV AH
REV: H
VERSION: 03
REVISED: 01:09:54 08/12/2022
TDR: 000001195384
MODEL NO. 07LYG082
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
VERT TEFC 307M 213-5TC, HI-EFF
07LYG082

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