ABB BALDOR RELIANCE

Customer information packet

VEM3770T-5

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

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/5/2026 9:50:44 AM

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	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM CURUSEEV NEMA PREMIUM (OLD LOGO)
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	7.500 A @ 575.0 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 Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	7.5 a
Insulation Class	F

Part Detail

Revision	Y
Type	AC
Mech. spec.	07G082
Base	
Status	PRD/A
Elec. spec.	07WGX817
Layout	07LYG082
Eff. date	05-28-2025
CD Diagram	CD0006
Poles	04
Leads	3#14
Proprietary	False
Created date	03-20-2009

Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 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
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
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

NP3441L									
CAT.NO.	VEM3770T-5								
SPEC.	07G082X817								
HP	7.5								
VOLTS	575								
AMP	7.5								
RPM	1770								
FRAME	213TC	**HZ**	60			**PH**	3		
SER.F.	1.15	**CODE**	J	**DES**	A	**CL**	F		
NEMA-NOM-EFF	91.7	**PF**	81						
RATING	40C AMB-CONT								
CC	010A								
DE	6307	**ODE**	6206						
ENCL	TEFC	**SN**							
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
	SFA 8.7								

AC Induction Motor Performance Data
Record # 26661
Typical performance - not guaranteed values

Winding: 07WGX817-R001	**Type:** 0738M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	22.1 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			7.5	**Breakdown Torque**	73 LB-FT
R.P.M.			1770	**Pull-up Torque**	33.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	44.4 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	58.7 A
Service Factor (S.F.)			1.15	**No-load Current**	3.66 A
NEMA Nom. Eff.	91.7	**Power Factor**	81	**Line-line Res. @ 25ºC**	2.23 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	42°C
S.F. Amps				**Temp. Rise @ S.F. Load**	51°C
				Locked-rotor Power Factor	37.9
				Rotor inertia	0.934 LB-FT2

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	40	62	73	79	82	84	82
Efficiency	86.9	91.4	92.2	91.7	90.9	89.7	90.9
Speed	1793	1786	1779	1771	1761	1751	1764
Line amperes	4.07	4.98	6.23	7.7	9.4	11.2	8.58

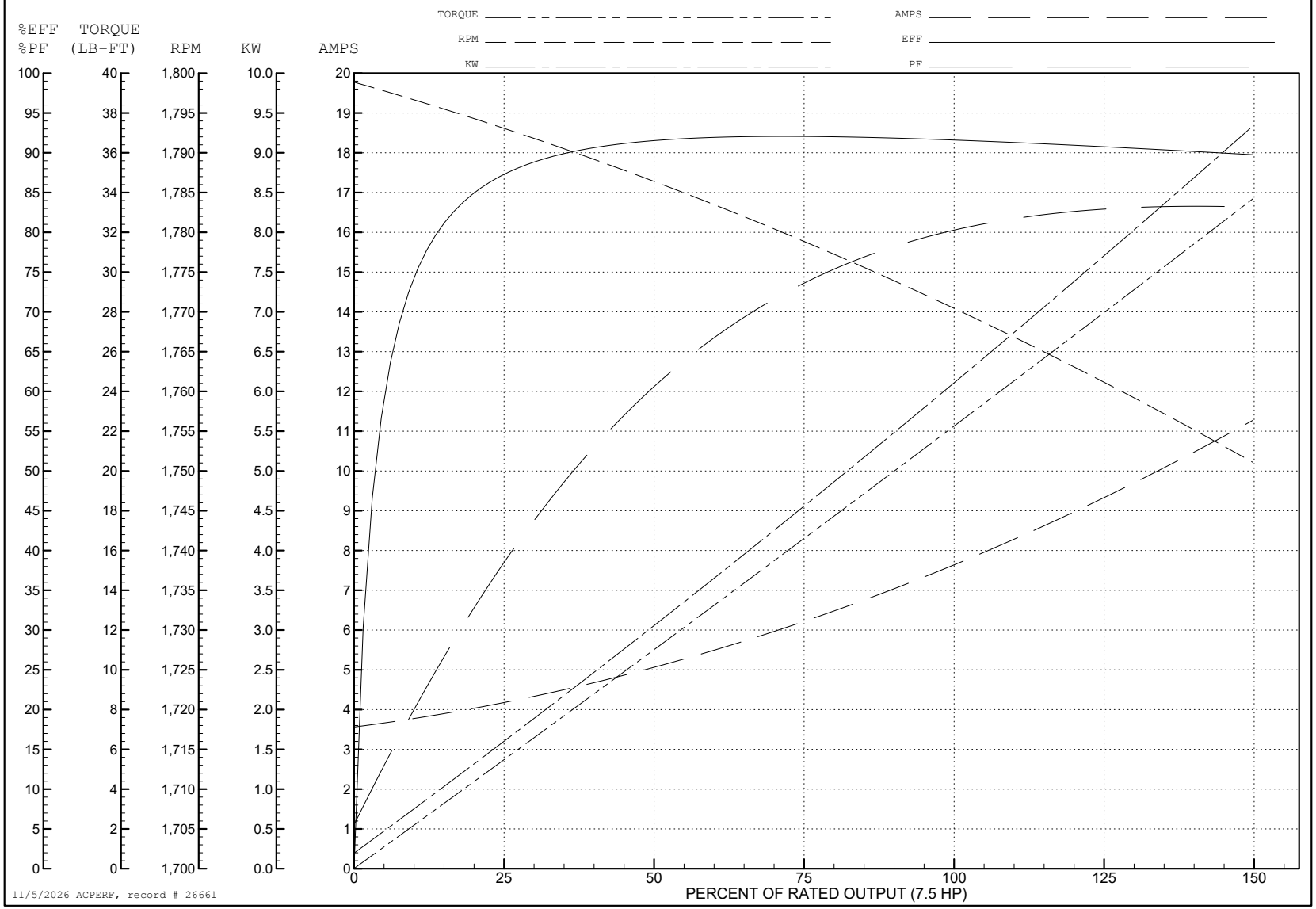
ABB Motors and Mechanical Inc.

WINDING # 07WGX817

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 575 V 0738M

TORQUES(LB-FT): PO=73 PU=33.7 LR=44.4 LRA=58.7



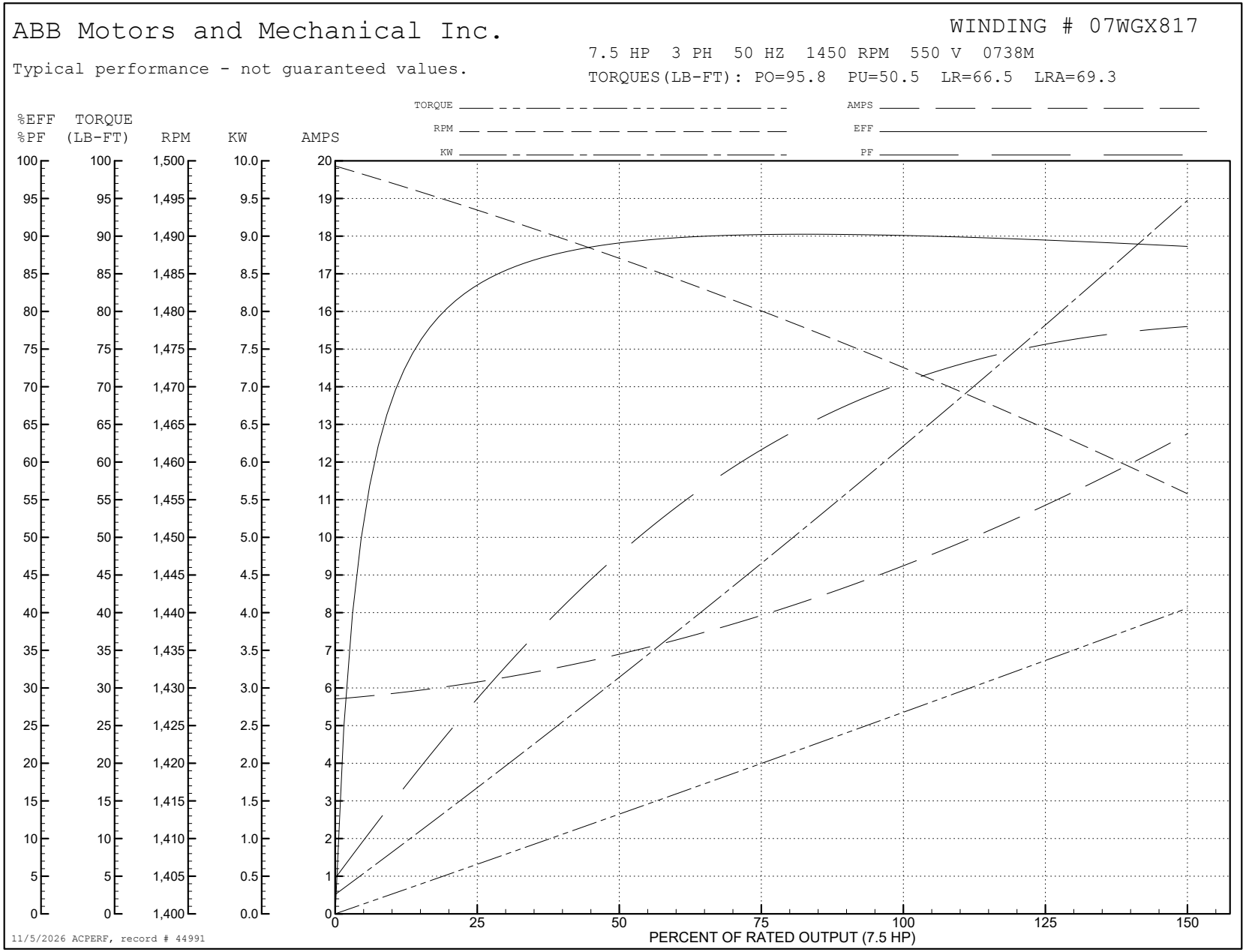
AC Induction Motor Performance Data
Record # 44991
Typical performance - not guaranteed values

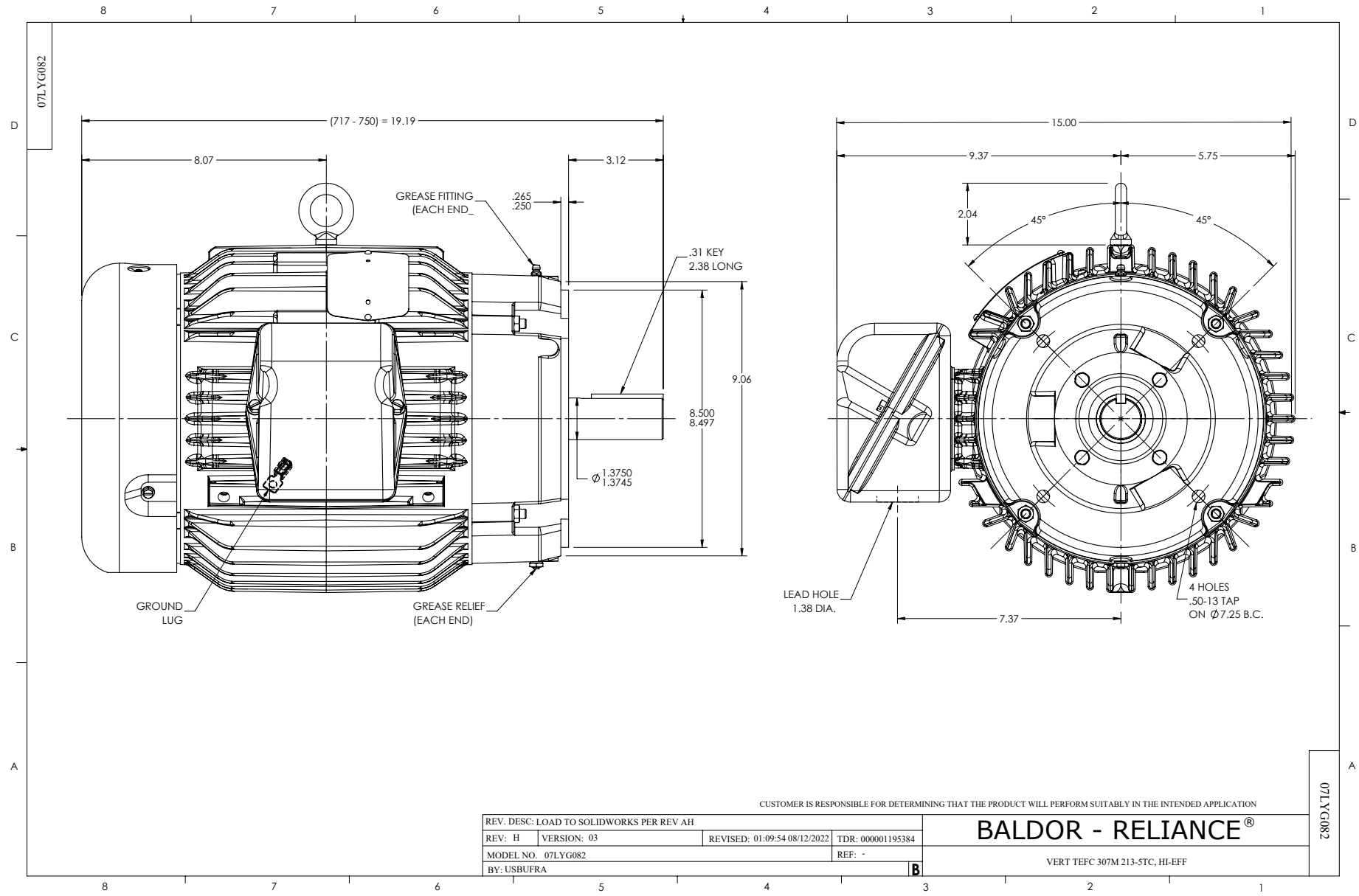
Winding: 07WGX817-R001	**Type:** 0738M	**Enclosure:** TEFC

Nameplate Data				**550 V, 50 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	26.6 LB-FT
Volts			550	**Start Configuration**	direct on line
Full Load Amps			9.1	**Breakdown Torque**	95.8 LB-FT
R.P.M.			1450	**Pull-up Torque**	50.5 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	66.5 LB-FT
NEMA Design Code	A	**KVA Code**	K	**Starting Current**	69.3 A
Service Factor (S.F.)			1.15	**No-load Current**	5.77 A
NEMA Nom. Eff.	89.5	**Power Factor**	71	**Line-line Res. @ 25ºC**	2.23 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	56°C
S.F. Amps				**Temp. Rise @ S.F. Load**	67°C
				Locked-rotor Power Factor	44.1
				Rotor inertia	0.934 LB-FT2

Load Characteristics 550 V, 50 Hz, 7.5 HP

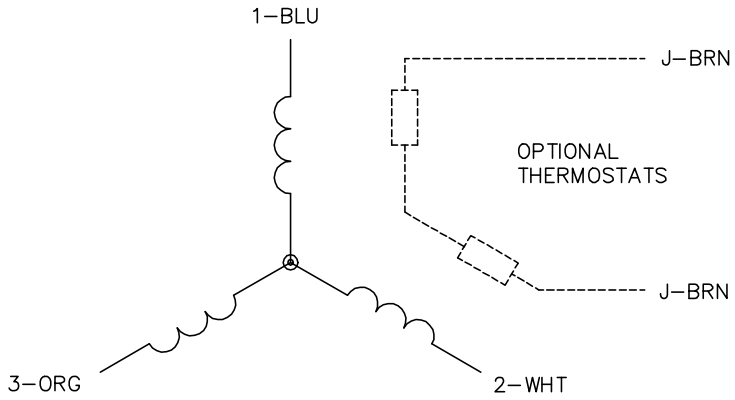
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	29	48	61	70	75	78	74
Efficiency	83.2	89.2	90.1	90.2	89.6	88.6	89.4
Speed	1494	1487	1480	1473	1464	1456	1466
Line amperes	6.09	6.83	7.9	9.29	10.9	12.7	10.1

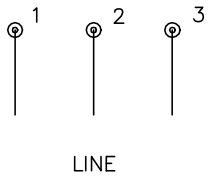

ABB Motors and Mechanical Inc.
WINDING # 07WGX817
7.5 HP 3 PH 50 HZ 1450 RPM 550 V 0738M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=95.8 PU=50.5 LR=66.5 LRA=69.3
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (7.5 HP)
11/5/2026 ACPERF, record # 44991


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

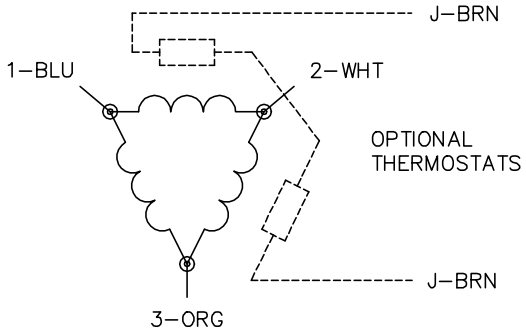
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1