

**BALDOR • RELIANCE**

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# Customer information packet

## VEM3770T-5

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Class - None

Division - Not Applicable

## 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	CSA EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary 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

## 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

High Voltage Full Load Amps	7.5 a
Insulation Class	F
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**

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**Nameplate**

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

**AC Induction Motor Performance Data**

Record # 26661

Typical performance - not guaranteed values

<b>Winding: 07WGX817-R001</b>		<b>Type: 0738M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>575 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	7.5	<b>Full Load Torque</b>	22.1 LB-FT		
<b>Volts</b>	575	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	7.5	<b>Breakdown Torque</b>	73 LB-FT		
<b>R.P.M.</b>	1770	<b>Pull-up Torque</b>	33.7 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	44.4 LB-FT	
<b>NEMA Design Code</b>	A <b>KVA Code</b>	J	<b>Starting Current</b>	58.7 A	
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	3.66 A		
<b>NEMA Nom. Eff.</b>	91.7 <b>Power Factor</b>	81	<b>Line-line Res. @ 25°C</b>	2.23 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	42°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	51°C	
			<b>Locked-rotor Power Factor</b>	37.9	
			<b>Rotor inertia</b>	0.934 LB-FT <sup>2</sup>	

**Load Characteristics 575 V, 60 Hz, 7.5 HP**

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

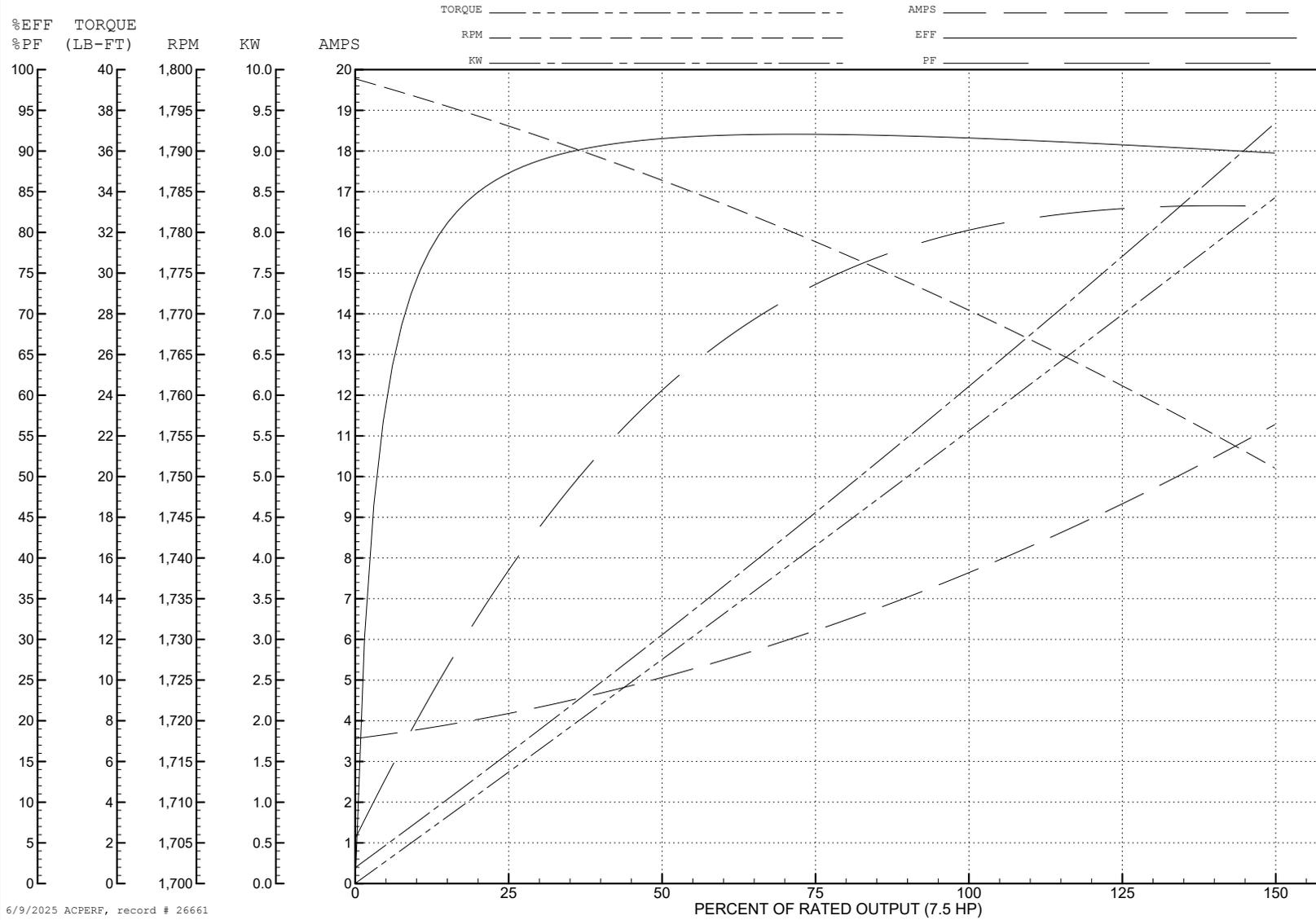
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WINDING # 07WGX817

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



6/9/2025 ACPERF, record # 26661

**AC Induction Motor Performance Data**

Record # 44991

Typical performance - not guaranteed values

Winding: 07WGX817-R001		Type: 0738M		Enclosure: TEFC	
<b>Nameplate Data</b>			<b>550 V, 50 Hz: Single Voltage Motor</b>		
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. @ 25°C	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-FT <sup>2</sup>	

**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

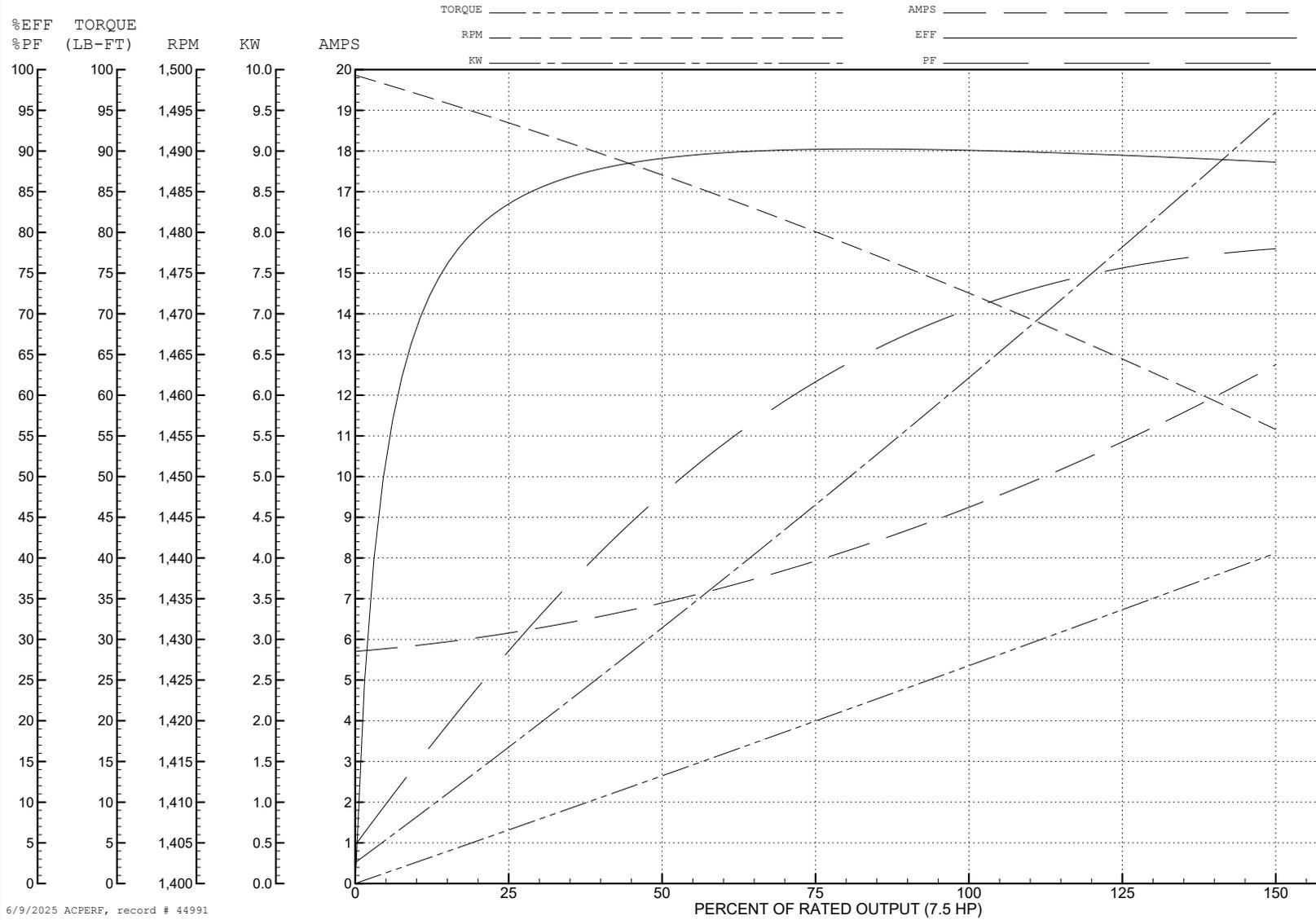
ABB Motors and Mechanical Inc.

WINDING # 07WGX817

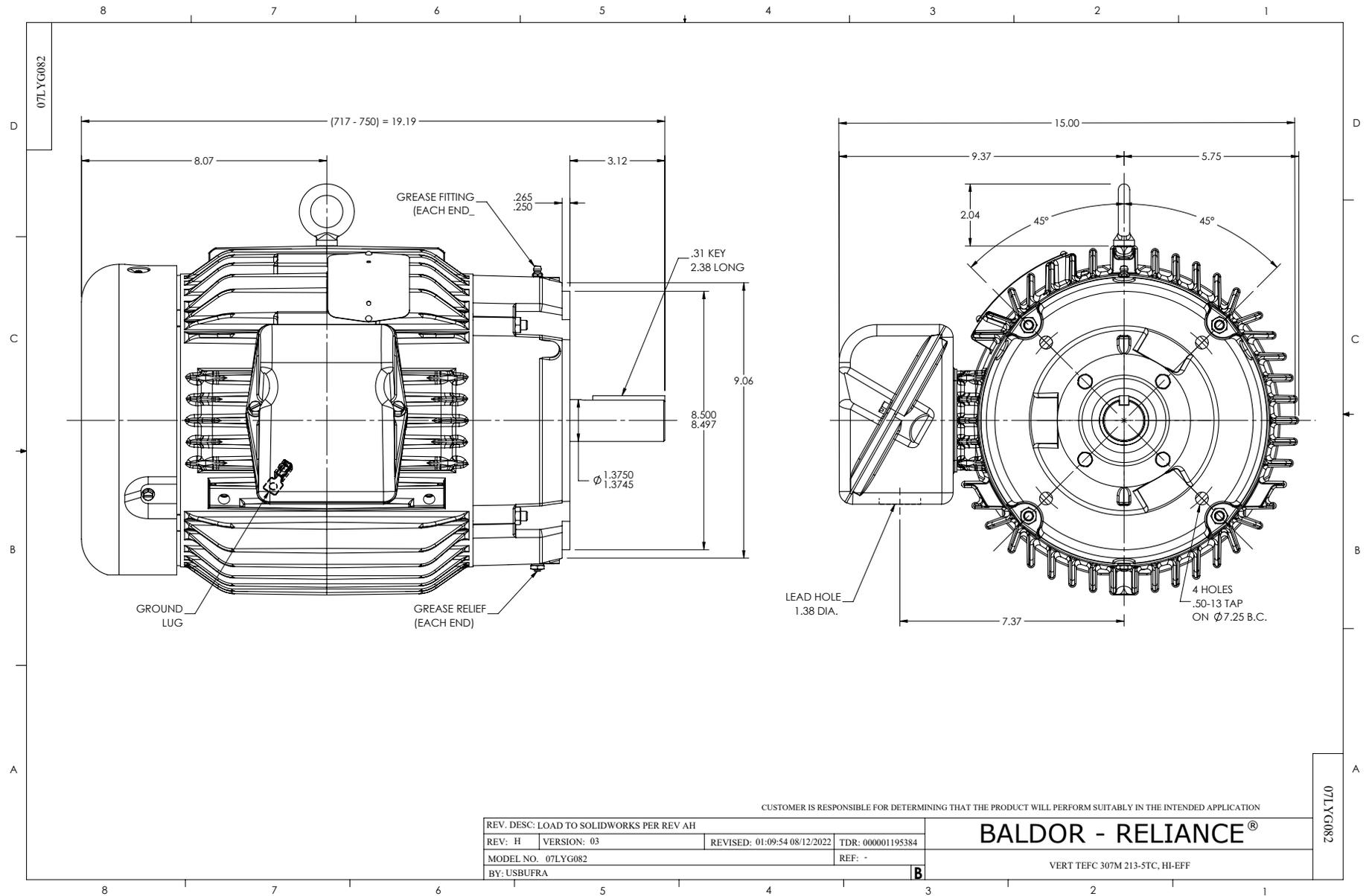
Typical performance - not guaranteed values.

7.5 HP 3 PH 50 HZ 1450 RPM 550 V 0738M

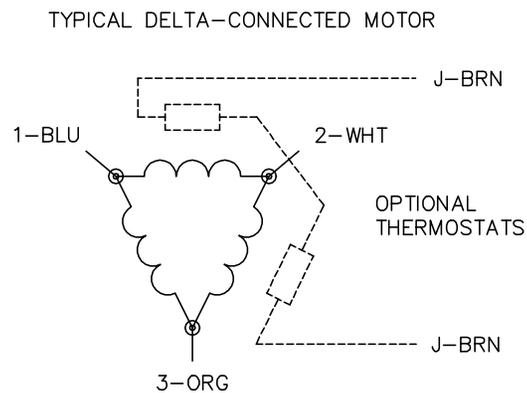
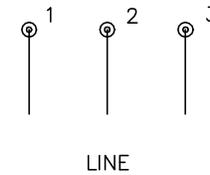
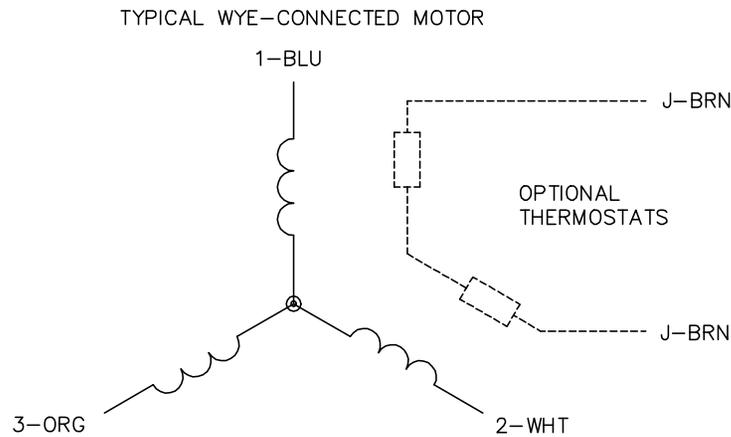
TORQUES (LB-FT): PO=95.8 PU=50.5 LR=66.5 LRA=69.3



6/9/2025 ACPERF, record # 44991



CD0006



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: ENBRIRO
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**BALDOR - RELIANCE®**

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

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