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# Customer information packet

## VEM31120

1.5HP, 3490RPM, 3PH, 60HZ, 56C, 3518M, OPEN, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	OPEN
Frame	56C
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	1.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 208.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
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	2.000 A @ 460.0 V 4.000 A @ 230.0 V 4.200 A @ 208.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	84.0 %
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	Q
Type	AC
Mech. spec.	35E4017
Base	
Status	PRD/A
Elec. spec.	35WGM761
Layout	35LYE4017
Eff. date	05-16-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	09-30-2014

High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3518M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.22 IN
Power Factor	83
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	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3490 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>NP3155LUA</b>									
<b>CAT.NO.</b>	VEM31120								
<b>SPEC.</b>	35E4017M761G1								
<b>HP</b>	1.5								
<b>VOLTS</b>	208-230/460								
<b>AMPS</b>	4.2-4/2								
<b>RPM</b>	3490								
<b>FRAME</b>	56C		<b>HZ</b>	60		<b>PH</b>	3		
<b>SF</b>	1.15	<b>CODE</b>	L	<b>DES</b>	B	<b>CLASS</b>	F		
<b>F.L. AVG. EFF.</b>	84	<b>PF</b>	83						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>									
<b>DE</b>	6205		<b>ODE</b>	6203					
<b>ENCL</b>	OPEN	<b>SN</b>							
<b>USABLE AT</b>	N/A								

**AC Induction Motor Performance Data**

Record # 61779

Typical performance - not guaranteed values

<b>Winding: 35WGM761-R013</b>		<b>Type: 3518M</b>		<b>Enclosure: OPEN</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	1.5	<b>Full Load Torque</b>	2.26 LB-FT		
<b>Volts</b>	208-230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	4.2-4/2	<b>Breakdown Torque</b>	9.32 LB-FT		
<b>R.P.M.</b>	3490	<b>Pull-up Torque</b>	4.18 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	6.79 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	L	<b>Starting Current</b>	17.2 A	
<b>Service Factor (S.F.)</b>		1.15	<b>No-load Current</b>	1.05 A	
<b>NEMA Nom. Eff.</b>	84 <b>Power Factor</b>	83	<b>Line-line Res. @ 25°C</b>	12.897 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	24°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	29°C	
			<b>Locked-rotor Power Factor</b>	64	
			<b>Rotor inertia</b>	0.0493 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 1.5 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>	43	64	76	83	87	90	85
<b>Efficiency</b>	73.6	82.2	84.7	85	84.3	83	84.6
<b>Speed</b>	3574.4	3550.4	3524.4	3496.4	3465.2	3430	3478
<b>Line amperes</b>	1.14	1.35	1.63	1.99	2.41	2.84	2.24

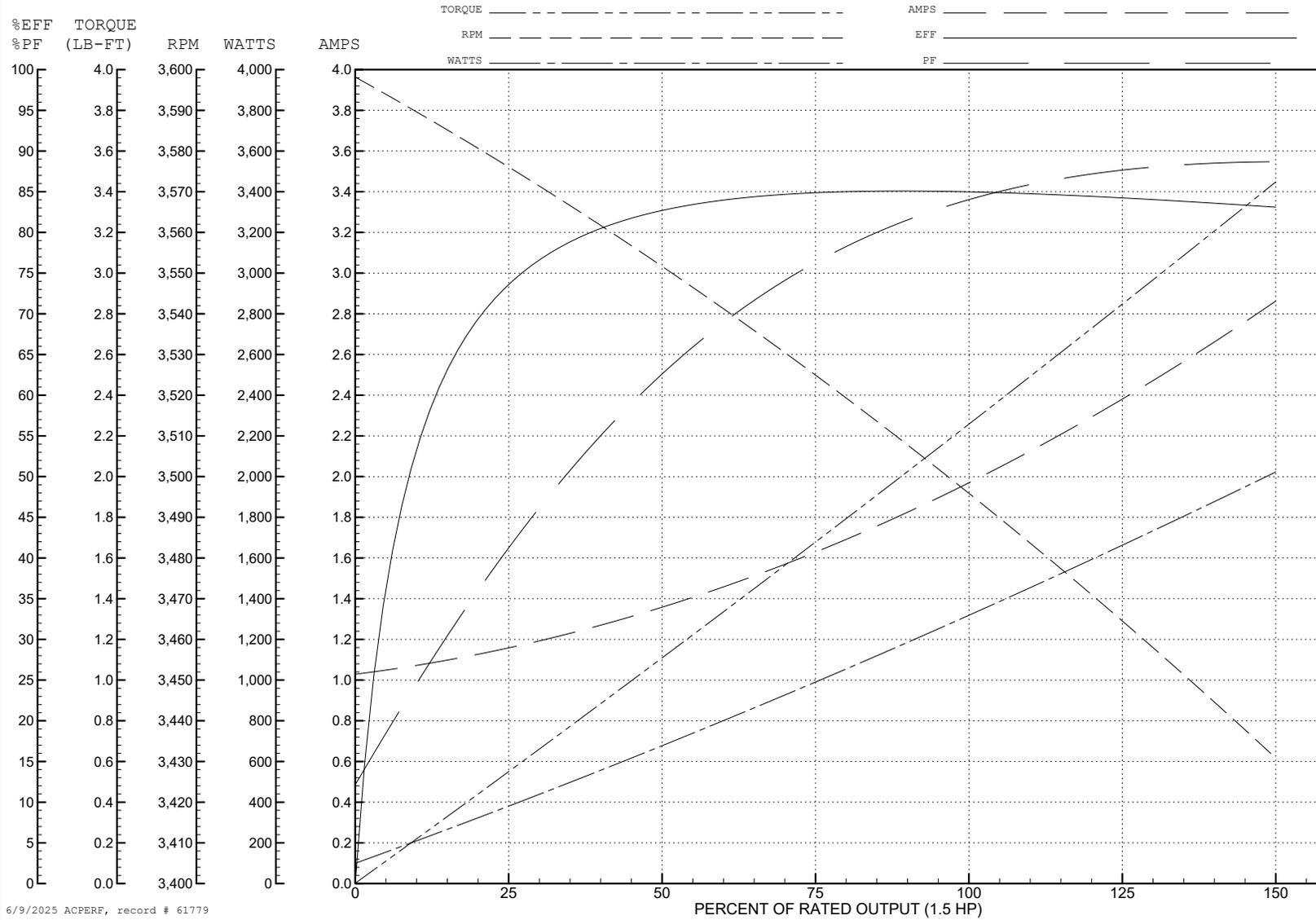
ABB Motors and Mechanical Inc.

WINDING # 35WGM761

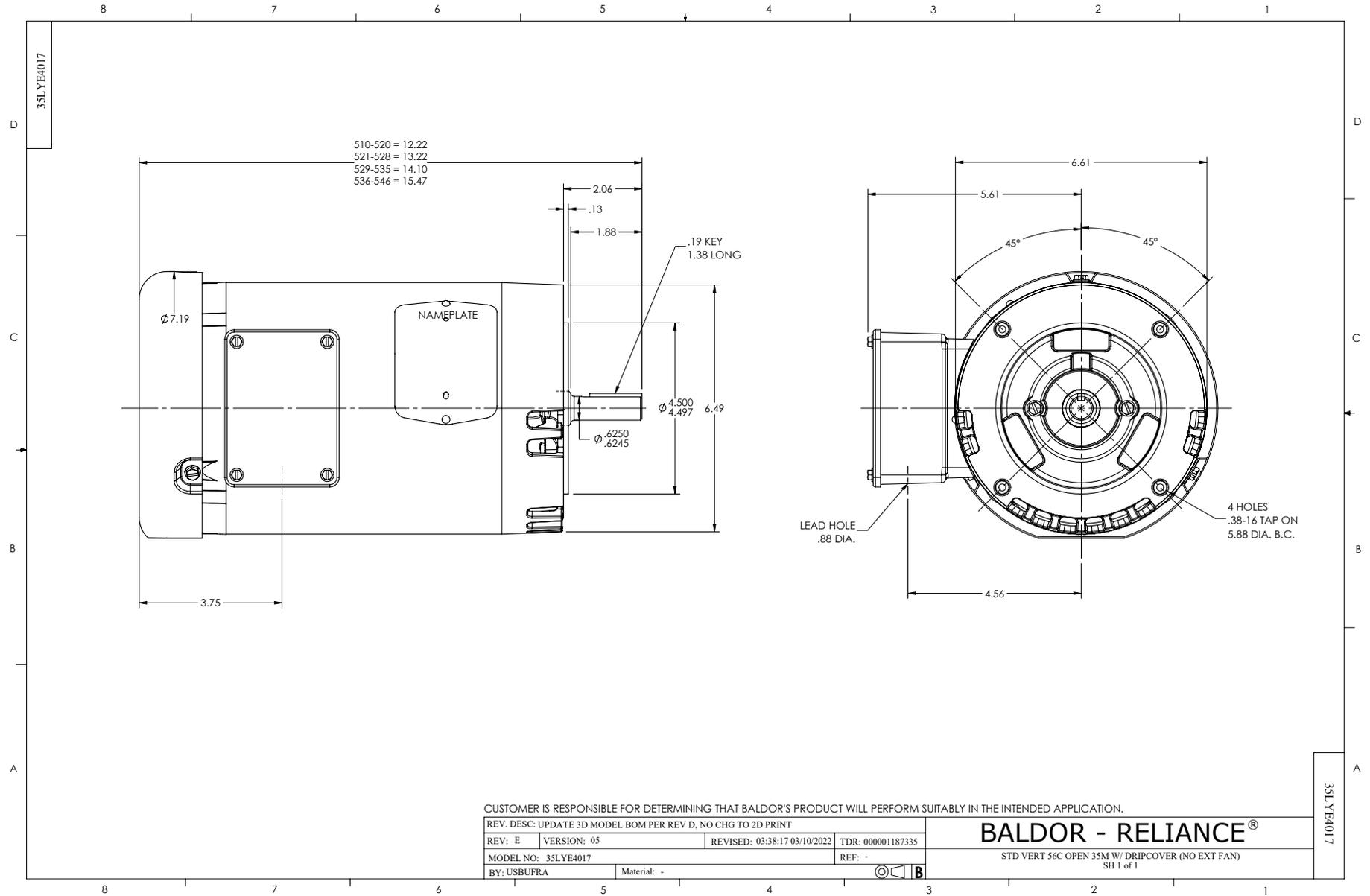
Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 3490 RPM 460 V 3518M

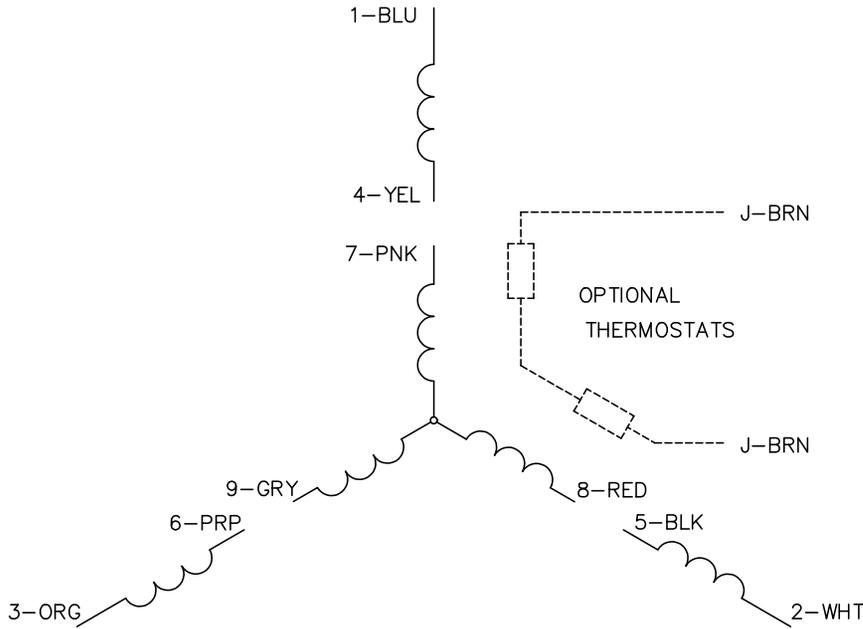
TORQUES (LB-FT): PO=9.32 PU=4.18 LR=6.79 LRA=17.2



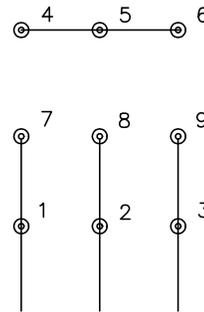
6/9/2025 ACPERF, record # 61779



CD0005

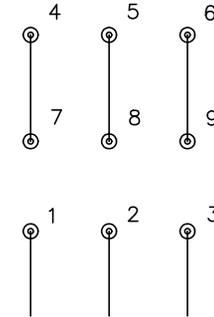


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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

REV. LTR: E BY: JLP REVISED: 01/19/99 10:15 TDR: 0171435

900000

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS