

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3120T**

**1.5HP,3490RPM,3PH,60HZ,143TC,3518M,OPEN**

Part Detail							
Revision:	P	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGM761	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35Z413	Layout:	35LYZ413	Poles:	02	Created Date:	04-27-2015
Base:	N	Eff. Date:	02-18-2019	Leads:	9#18		

Specs			
Catalog Number:	VEM3120T	Heater Indicator:	No Heater
Enclosure:	OPEN	Insulation Class:	F
Frame:	143TC	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	L
Output @ Frequency:	1.500 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	208.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3518M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	83
	CSA EEV	Product Family:	General Purpose
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	C-Face
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT

<b>Blower:</b>	None	<b>Shaft Extension Location:</b>	Pulley End
<b>Current @ Voltage:</b>	4.200 A @ 208.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	4.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	2.000 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	B	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3553LUA</b>									
<b>CAT.NO.</b>	VEM3120T								
<b>SPEC.</b>	35Z413M761G1								
<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>	143TC			<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15			<b>CODE</b>	L		<b>DES</b>	B	
<b>NEMA NOM. EFF</b>	84			<b>PF</b>	83			<b>CLASS</b>	F
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>	010A						<b>USABLE AT 208V</b>	4.2	
<b>DE</b>	6205			<b>ODE</b>	6203				
<b>ENCL</b>	OPEN			<b>SN</b>					
<b>VPWM INVERTER READY</b>									
<b>CT30-60(2:1) VT3-60(20:1)</b>									
<b>USABLE AT</b>	50HZ 1.5HP 190/380V 4.6/2.3A								<b>SF1.0</b>

Parts List		
Part Number	Description	Quantity
SA300021	SA 35Z413M761G1	1.000 EA
RA287067	RA 35Z413M761G1	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
35EP3209A02	A00 W/DRIP COVER	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3402B00	MASTER DE,205 BRG,OPEN,W/GREASER	1.000 EA
35AD2000	AIR BAFFLE - GALVANNEAL	1.000 EA
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 EA
35FH4006A09	DRIP COVER W/FLAT, W/ PRIMER	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	2.000 EA
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3553LUA	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
35PA1000	PKG GRP, PRINT PK1008A06	1.000 EA
PK3083T	STYROFOAM PACKING CRADLE	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS 5,400/RL	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 62662 - Typical performance - not guaranteed values

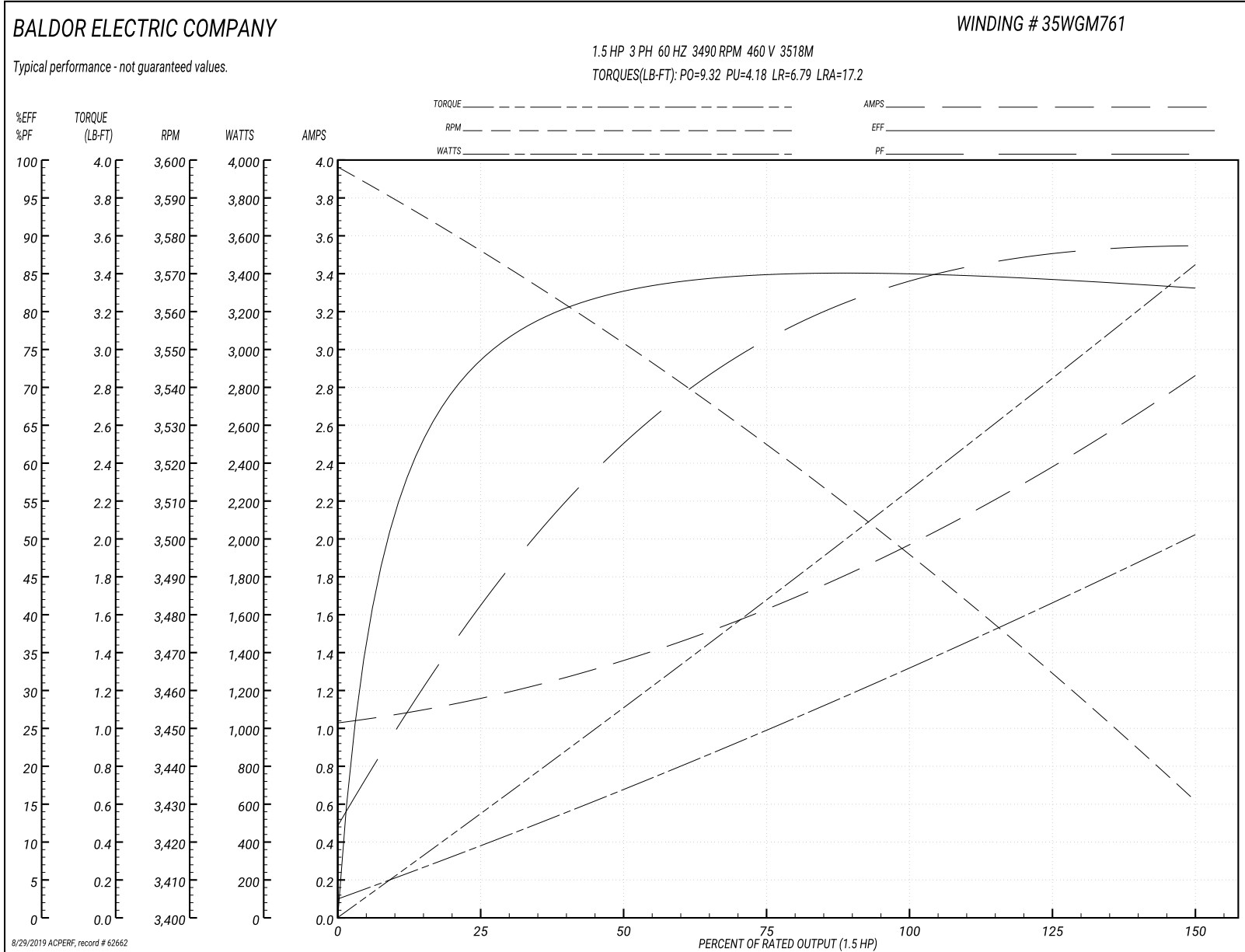
<b>Winding:</b> 35WGM761-R011	<b>Type:</b> 3518M	<b>Enclosure:</b> OPEN
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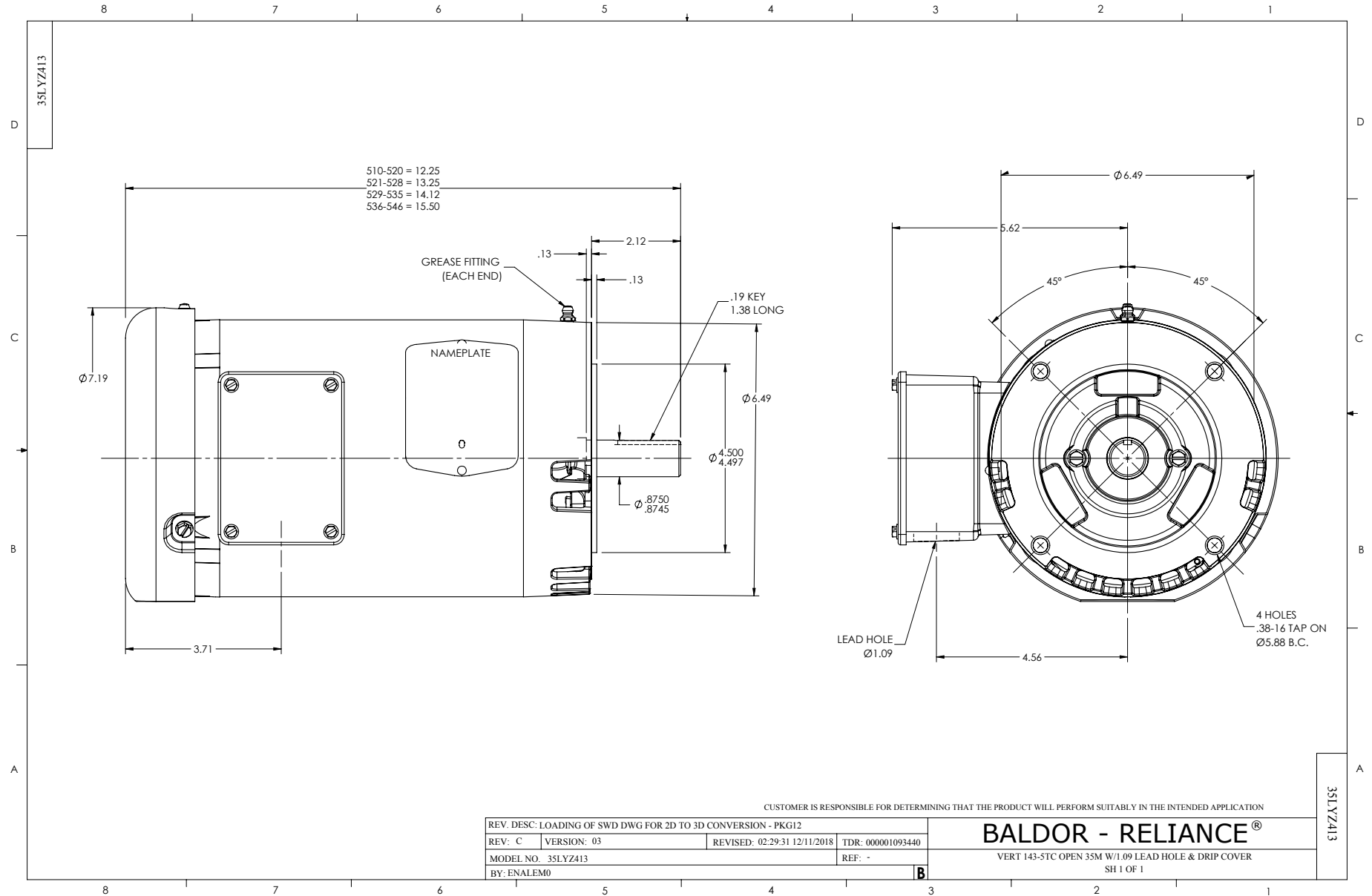
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1.5			Full Load Torque	2.26 LB-FT
Volts	208-230/460			Start Configuration	direct on line
Full Load Amps	4.2-4/2			Breakdown Torque	9.32 LB-FT
R.P.M.	3490			Pull-up Torque	4.18 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	6.79 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	17.2 A
Service Factor (S.F.)	1.15			No-load Current	1.05 A
NEMA Nom. Eff.	84	Power Factor	83	Line-line Res. @ 25°C	12.897 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	24°C
S.F. Amps				Temp. Rise @ S.F. Load	29°C
				Locked-rotor Power Factor	64
				Rotor inertia	0.0493 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	64	76	83	87	90	85
Efficiency	73.6	82.2	84.7	85	84.3	83	84.6
Speed	3574.4	3550.4	3524.4	3496.4	3465.2	3430	3478
Line amperes	1.14	1.35	1.63	1.99	2.41	2.84	2.24

Performance Graph at 460V, 60Hz, 1.5HP Typical performance - Not guaranteed values





CD0005

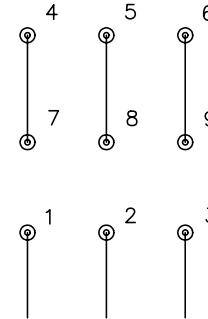


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP

REVISED: 01/19/99 10:15

TDR: 0171435

90000

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005