

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **VEM3546**

**1HP,1760RPM,3PH,60HZ,56C,3520M,TEFC,F1,N**

Part Detail							
Revision:	T	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGM492	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35J302	Layout:	35LYJ302	Poles:	04	Created Date:	08-05-2010
Base:	N	Eff. Date:	07-19-2017	Leads:	9#18		

Specs			
Catalog Number:	VEM3546	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	56C	KVA Code:	L
Frame Material:	Steel	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	1.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Voltage @ Frequency:	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:	3520M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	71
	CSA EEV	Product Family:	General Purpose
	CSA	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
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	1.500 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	3.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	3.100 A @ 208.0 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>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	VEM3546									
<b>SPEC</b>	35J302M492G1									
<b>HP</b>	1									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	3/1.5									
<b>RPM</b>	1760									
<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>NEMA NOM. EFF</b>	85.5		<b>PF</b>	71						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						3.1
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6205			<b>ODE</b>	6203					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1</b>										
	50Hz 1HP 190/380V 3.6/1.8A									
	SF1.0									

Parts List		
Part Number	Description	Quantity
SA200982	SA 35J302M492G1	1.000 EA
RA188287	RA 35J302M492G1	1.000 EA
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	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
35EP3100M02	FREP TEFC 203 BRG W/O GR SR (RAISED FH MT	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3300A33	SPL FACE MTD EP -ENCL-205 BRG	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 EA
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
35FH4005A32SP	IEC FH NO GR SR W/3 HOLES - PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4521GX	CONDUIT BOX LID KIT	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
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	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>
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1100/bx) 11/14	1.000 EA

**AC Induction Motor Performance Data**

Record # 53095 - Typical performance - not guaranteed values

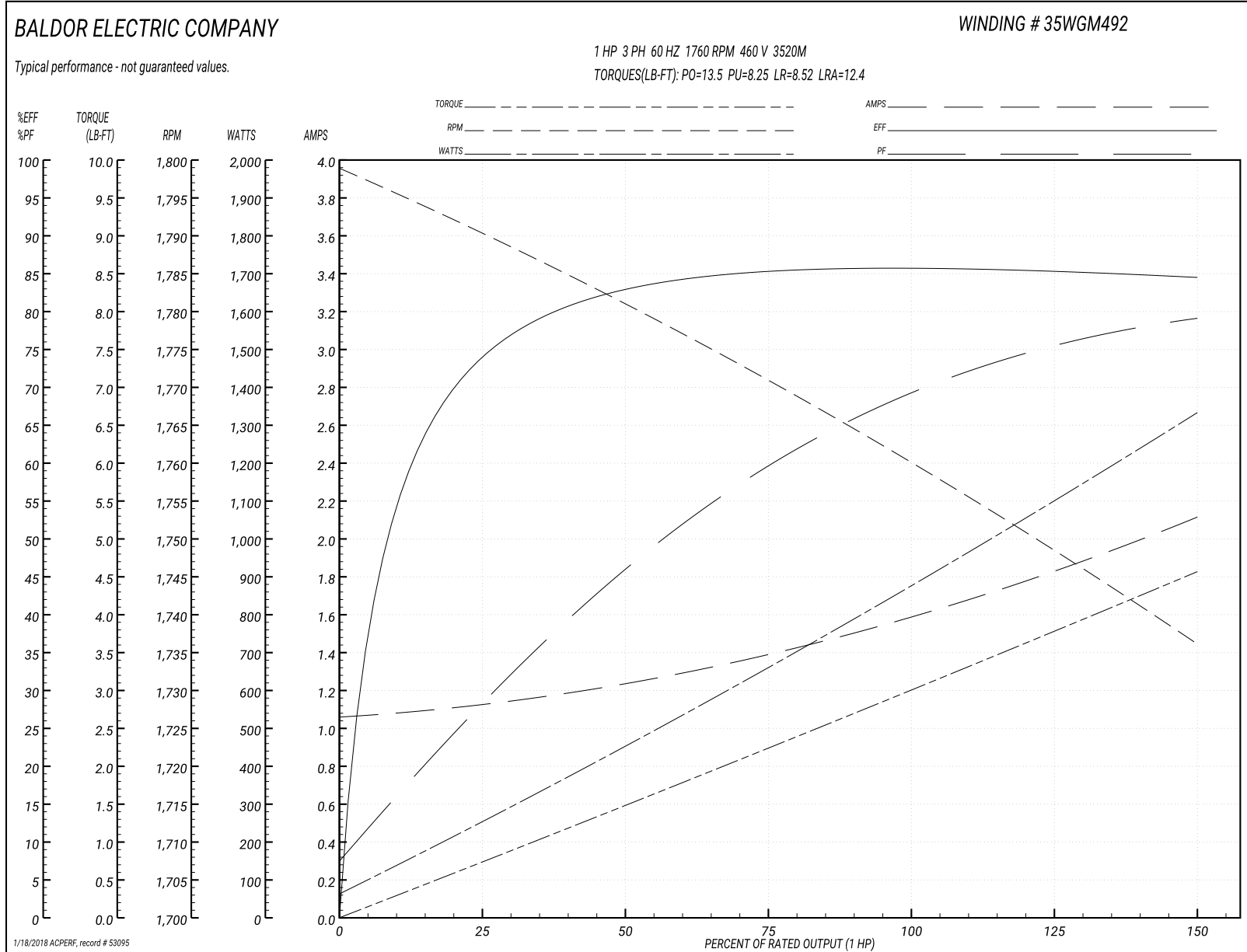
<b>Winding:</b> 35WGM492-R050	<b>Type:</b> 3520M	<b>Enclosure:</b> TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1			Full Load Torque	2.99 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	3/1.5			Breakdown Torque	13.5 LB-FT
R.P.M.	1760			Pull-up Torque	8.25 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	8.52 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	12.4 A
Service Factor (S.F.)	1.15			No-load Current	1.07 A
NEMA Nom. Eff.	85.5	Power Factor	71	Line-line Res. @ 25°C	15 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	36°C
S.F. Amps				Temp. Rise @ S.F. Load	42°C
				Locked-rotor Power Factor	53.8
				Rotor inertia	0.118 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	46	60	69	75	79	75
Efficiency	74.2	82.9	85.4	85.8	85.4	84.5	85.4
Speed	1790	1781	1771	1760	1749	1736	1754
Line amperes	1.11	1.24	1.39	1.59	1.83	2.11	1.69

Performance Graph at 460V, 60Hz, 1.0HP Typical performance - Not guaranteed values





**AC Induction Motor Performance Data**

Record # 57707 - Typical performance - not guaranteed values

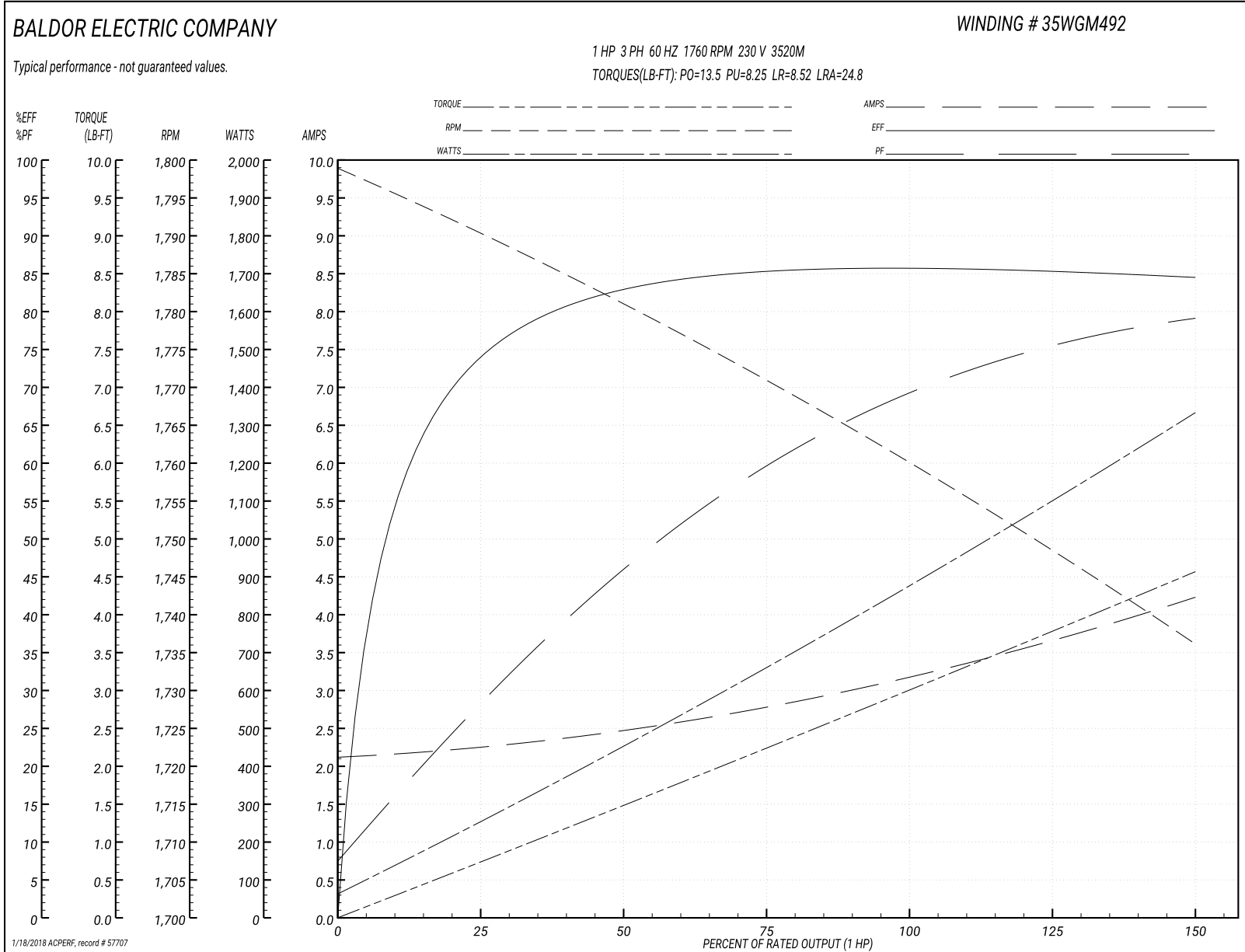
<b>Winding:</b> 35WGM492-R050	<b>Type:</b> 3520M	<b>Enclosure:</b> TEFC
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Nameplate Data				230 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1			Full Load Torque	2.99 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	3/1.5			Breakdown Torque	13.5 LB-FT
R.P.M.	1760			Pull-up Torque	8.25 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	8.52 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	24.8 A
Service Factor (S.F.)	1.15			No-load Current	2.14 A
NEMA Nom. Eff.	85.5	Power Factor	71	Line-line Res. @ 25°C	3.75 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	36°C
S.F. Amps				Temp. Rise @ S.F. Load	42°C
				Locked-rotor Power Factor	53.8
				Rotor inertia	0.118 LB-FT <sup>2</sup>

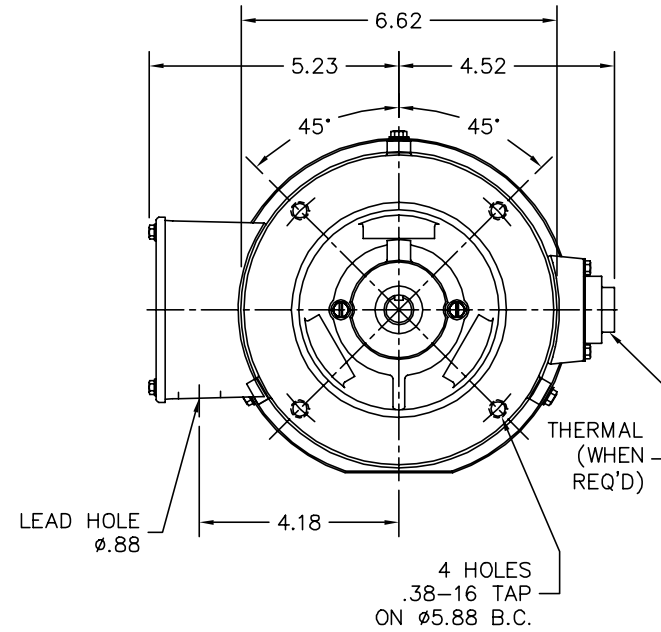
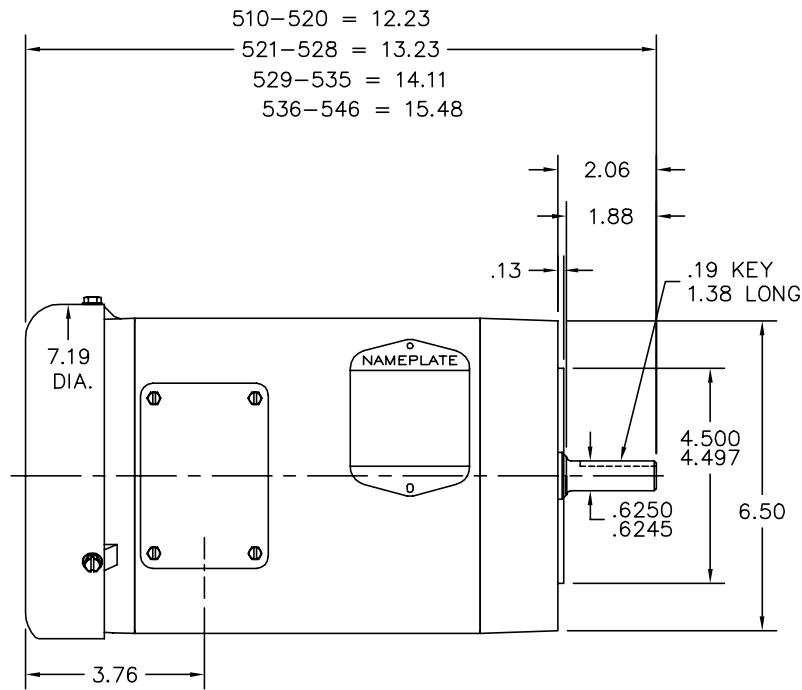
Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	46	60	69	75	79	74
Efficiency	74.2	82.9	85.4	85.8	85.4	84.5	85.6
Speed	1790	1781	1771	1760	1749	1736	1754
Line amperes	2.22	2.48	2.78	3.18	3.66	4.22	1.69

Performance Graph at 230V, 60Hz, 1.0HP Typical performance - Not guaranteed values



35LYJ302



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

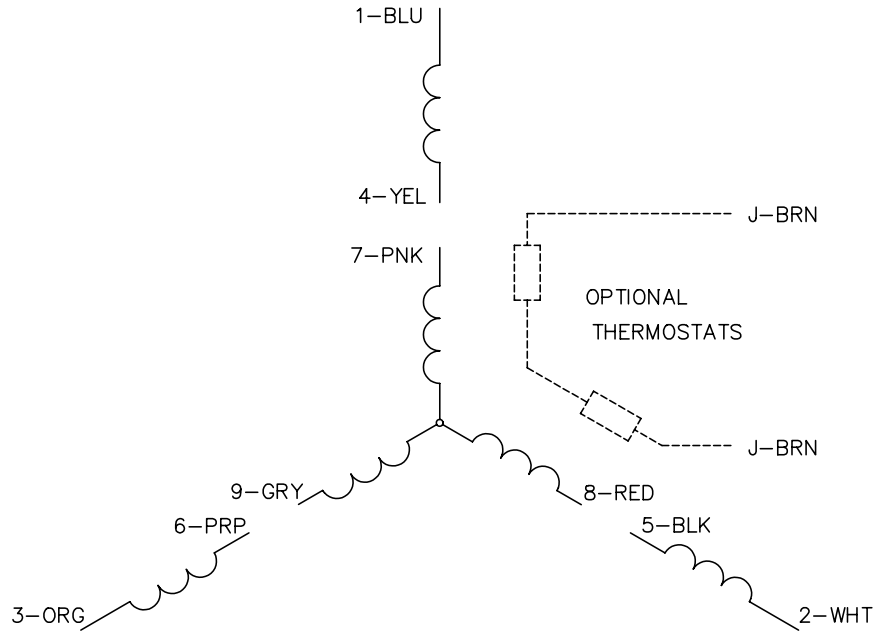
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REV. LTR: D	VERSION: 03	TDR: 000001034921
FILE: \AAA\00041\631	REVISED: 10:34:22 07/11/2017	BY: ENERINO
MTL: -		

**BALDOR**

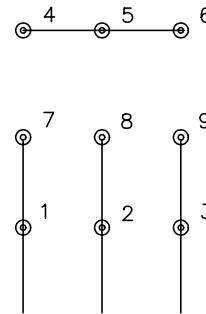
VERT 56C TEFC 35M  
 SH 1 of 1

35LYJ302

CD0005

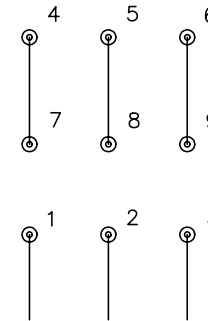


LOW VOLTAGE  
(2Y)



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
9000D		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005