

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3559**

**3HP,3450RPM,3PH,60HZ,56C,3532M,TEFC,F1,N**

Part Detail							
Revision:	Q	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGQ060	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35A013	Layout:	35LYA013	Poles:	02	Created Date:	01-30-2011
Base:	N	Eff. Date:	06-11-2018	Leads:	9#18		

Specs			
Catalog Number:	VEM3559	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	56C	KVA Code:	L
Frame Material:	Steel	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	3.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 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:	3532M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	92
	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>	3.600 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	7.200 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	7.900 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 (OLD)
<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>	VEM3559									
<b>SPEC</b>	35A013Q060G1									
<b>HP</b>	3									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	7.2/3.6									
<b>RPM</b>	3450									
<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>	86.5		<b>PF</b>	92						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						7.9
<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 3HP 190/380V 8.8/4.4A	
									SF1.0	

Parts List		
Part Number	Description	Quantity
SA216169	SA 35A013Q060G1	1.000 EA
RA203360	RA 35A013Q060G1	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
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3307F00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 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 **ORDER INDIV PARTS	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
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A18	THRUBOLT 10-32 X 9.250	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
PK3083T	STYROFOAM PACKING CRADLE	1.000 EA
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS 5,400/RL	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 50261 - Typical performance - not guaranteed values

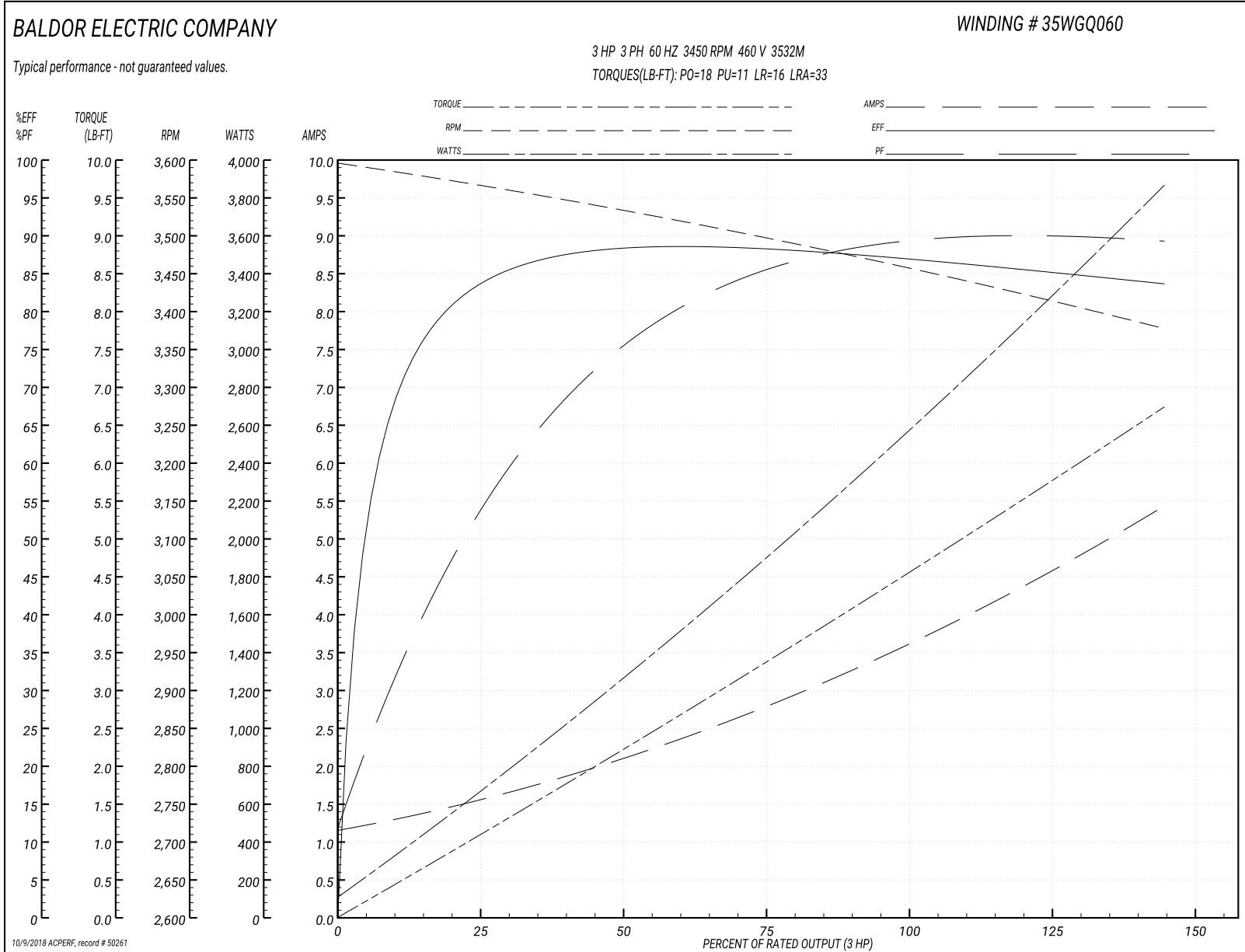
<b>Winding:</b> 35WGQ060-R002	<b>Type:</b> 3532M	<b>Enclosure:</b> TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	3			Full Load Torque	4.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	7.2/3.6			Breakdown Torque	18 LB-FT
R.P.M.	3450			Pull-up Torque	11 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	16 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	33 A
Service Factor (S.F.)	1.15			No-load Current	1.2 A
NEMA Nom. Eff.	86.5	Power Factor	92	Line-line Res. @ 25°C	4.72 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	61°C
S.F. Amps				Temp. Rise @ S.F. Load	76°C

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	92	93	94	93
Efficiency	83.7	87.9	88.2	87.2	85.6	83.5	86.2
Speed	3562	3531	3498	3462	3421	3375	3437
Line amperes	1.5	2.1	2.8	3.6	4.5	5.4	4.1

Performance Graph at 460V, 60Hz, 3.0HP Typical performance - Not guaranteed values





**AC Induction Motor Performance Data**

Record # 59171 - Typical performance - not guaranteed values

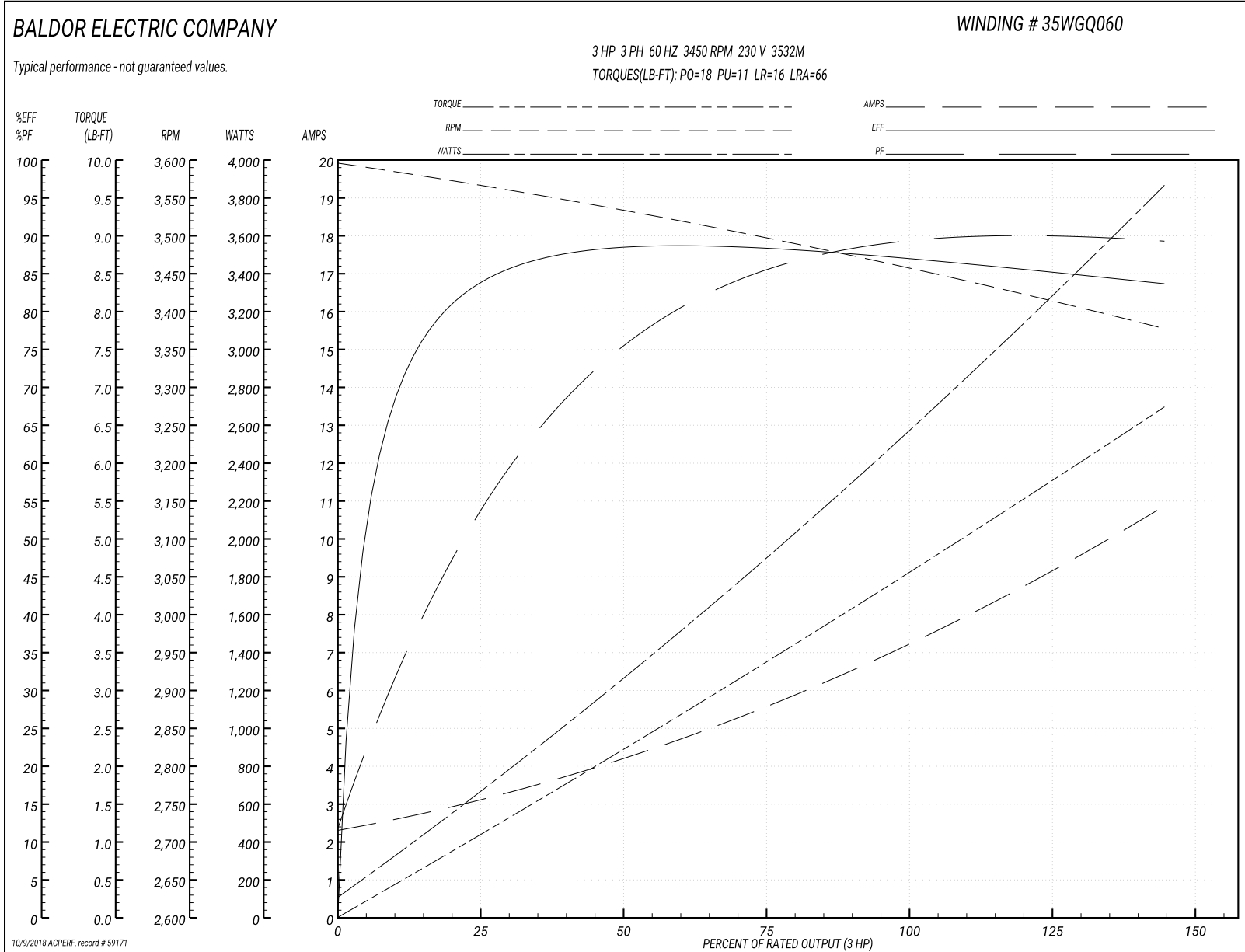
<b>Winding:</b> 35WGQ060-R002	<b>Type:</b> 3532M	<b>Enclosure:</b> TEFC
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Nameplate Data				230 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	3			Full Load Torque	4.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	7.2/3.6			Breakdown Torque	18 LB-FT
R.P.M.	3450			Pull-up Torque	11 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	16 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	66 A
Service Factor (S.F.)	1.15			No-load Current	2.4 A
NEMA Nom. Eff.	86.5	Power Factor	92	Line-line Res. @ 25°C	1.17 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	61°C
S.F. Amps				Temp. Rise @ S.F. Load	73°C
				Locked-rotor Power Factor	47.1
				Rotor inertia	0.0885 LB-FT <sup>2</sup>

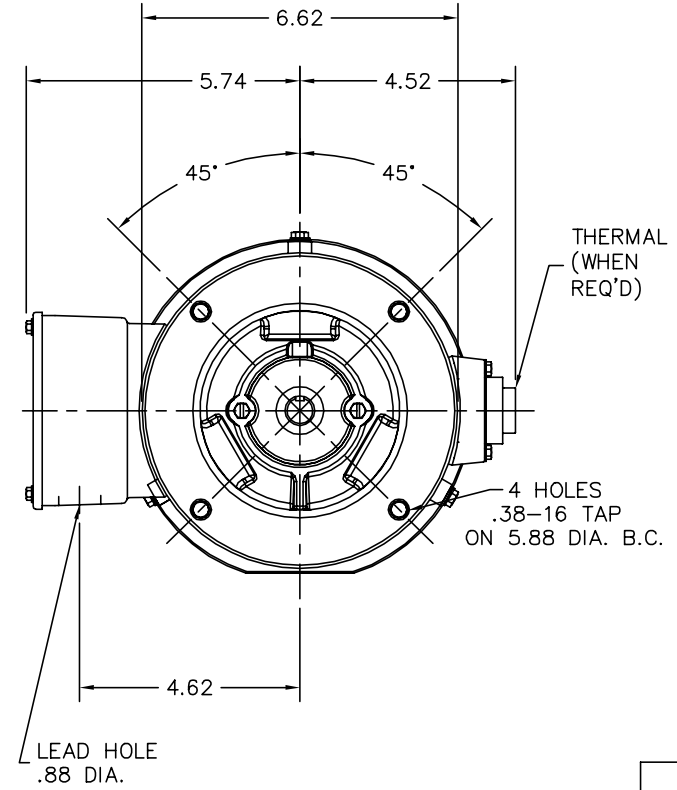
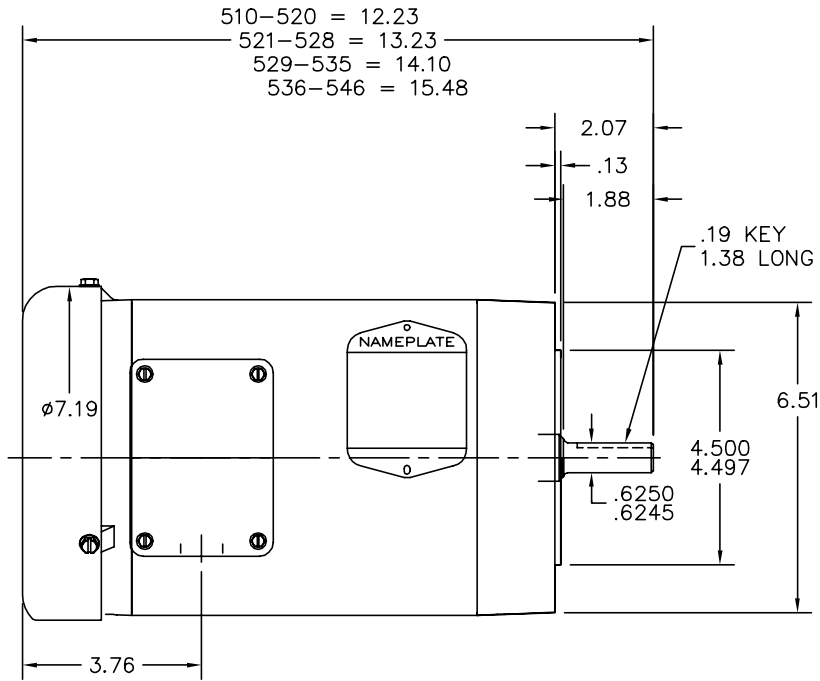
Load Characteristics 230 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	77	85	88	89	90	89
Efficiency	84.1	87.9	88.4	87.2	85.7	83.5	86.3
Speed	3562	3531	3498	3462	3421	3375	3437
Line amperes	3	4.2	5.6	7.2	9	10.8	8.28

Performance Graph at 230V, 60Hz, 3.0HP Typical performance - Not guaranteed values



35LYA013



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

REV. DESC: REPLACE ENDPLATES		
REV. LTR: N	VERSION: 05	TDR: 000001063223
FILE: \AAA\00004\894	REVISED: 09:23:18 03/06/2018	BY: USJOBUR22
MTL: -	☉ □	

**BALDOR**

STD VERT 56C TEFC 35M

SH 1 of 1

35LYA013

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

900003

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005