

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3613T**

**5HP,3450RPM,3PH,60HZ,184TC,3630M,TEFC,F1**

Part Detail							
Revision:	M	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGS042	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36A003	Layout:	36LYA003	Poles:	02	Created Date:	05-10-2010
Base:	N	Eff. Date:	10-23-2017	Leads:	9#16		

Specs			
Catalog Number:	VEM3613T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	184TC	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	L
Output @ Frequency:	5.000 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 16 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3630M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	91
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	11.800 A @ 230.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	12.000 A @ 208.0 V	<b>Shaft Rotation:</b>	Reversible
	5.900 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	A	<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 NP3441LUA</b>										
<b>CAT.NO.</b>	VEM3613T									
<b>SPEC</b>	36A003S042G1									
<b>HP</b>	5									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	11.8/5.9									
<b>RPM</b>	3450									
<b>FRAME</b>	184TC				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	L	<b>DES</b>	A		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	88.5		<b>PF</b>	91						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						12
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6206			<b>ODE</b>	6205					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1)</b>										
	50Hz 5HP 190/380V 14.2/7.1A									
	SF1.0									

Parts List		
Part Number	Description	Quantity
SA194649	SA 36A003S042G1	1.000 EA
RA182235	RA 36A003S042G1	1.000 EA
34FN3002B02	EXTERNAL FAN, PLASTIC, .905/.907 HUB W/	1.000 EA
36CB3004	36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
36EP3104A01	FREP MACH ASSEMBLY FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36PE3301A23	PUEP ASSEMBLY FOR ROUTING PURPOSES	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
10XN2520A28	1/4-20X 1 3/4 HEX HD	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
36FH4009A102	IEC FH GREASER PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
36CB4516	36 LIPPED CB LID - GALVANNEAL	1.000 EA
37GS1001SP	GASKET, CONDUIT BOX LID, .06 THICK LEXID	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501E16	KEY, 1/4 SQ X 1.750	1.000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
HA3101A25	THRUBOLT 1/4-20 X 11.000 OHIO ROD	4.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

**AC Induction Motor Performance Data**

Record # 35706 - Typical performance - not guaranteed values

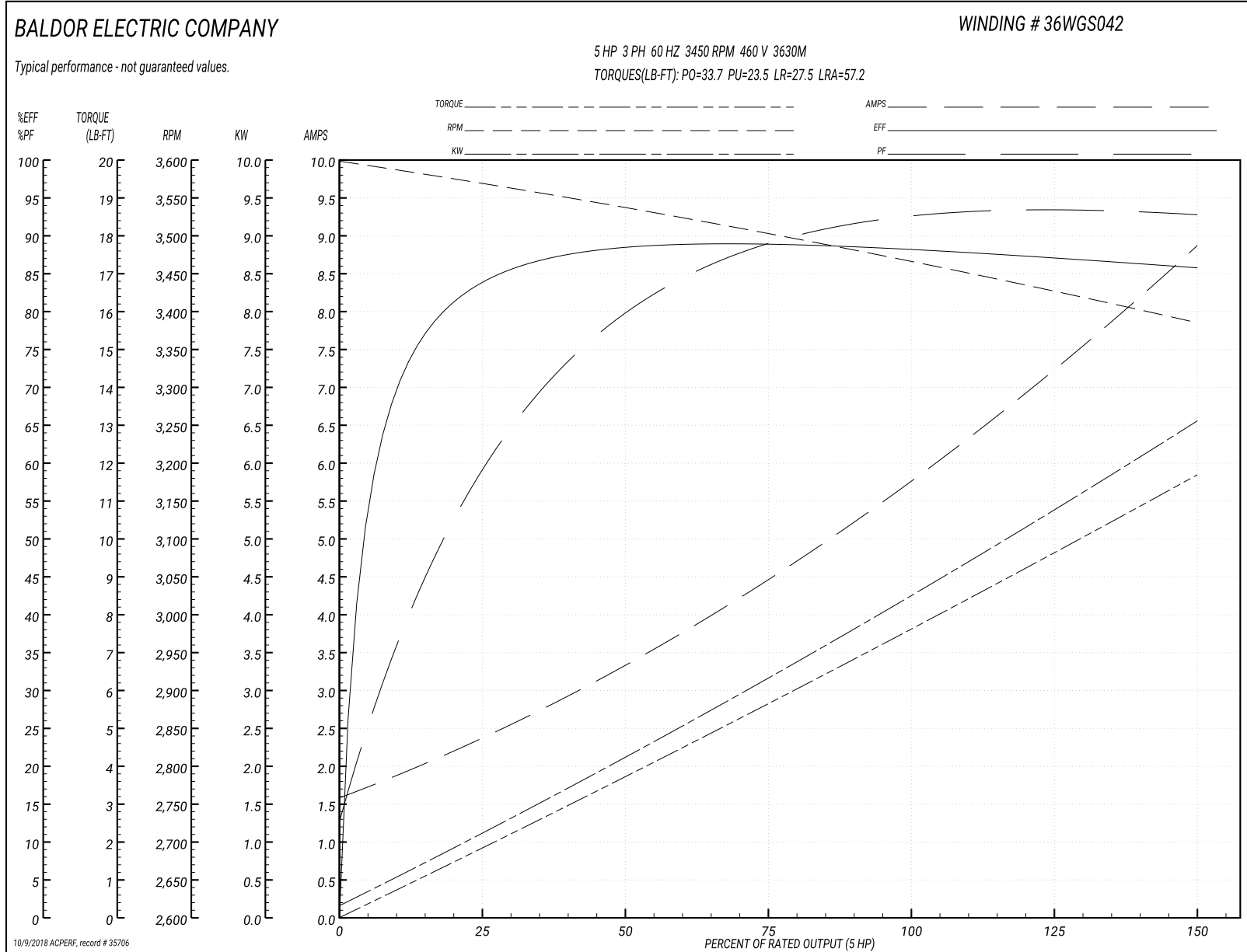
<b>Winding:</b> 36WGS042-R003	<b>Type:</b> 3630M	<b>Enclosure:</b> TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	5			Full Load Torque	7.64 LB-FT
Volts	208-230/460			Start Configuration	direct on line
Full Load Amps	12-11.8/5.9			Breakdown Torque	33.7 LB-FT
R.P.M.	3450			Pull-up Torque	23.5 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	27.5 LB-FT
NEMA Design Code	A	KVA Code	L	Starting Current	57.2 A
Service Factor (S.F.)	1.15			No-load Current	1.68 A
NEMA Nom. Eff.	88.5	Power Factor	91	Line-line Res. @ 25°C	2.27 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	72°C
S.F. Amps				Temp. Rise @ S.F. Load	88°C
				Locked-rotor Power Factor	45
				Rotor inertia	0.134 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	91	93	94	92
Efficiency	83.2	88.4	89.1	88.3	87	85.8	87.5
Speed	3569	3537	3504	3466	3428	3385	3443
Line amperes	2.24	3.26	4.47	5.85	7.26	8.8	6.7

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values





**AC Induction Motor Performance Data**

Record # 35722 - Typical performance - not guaranteed values

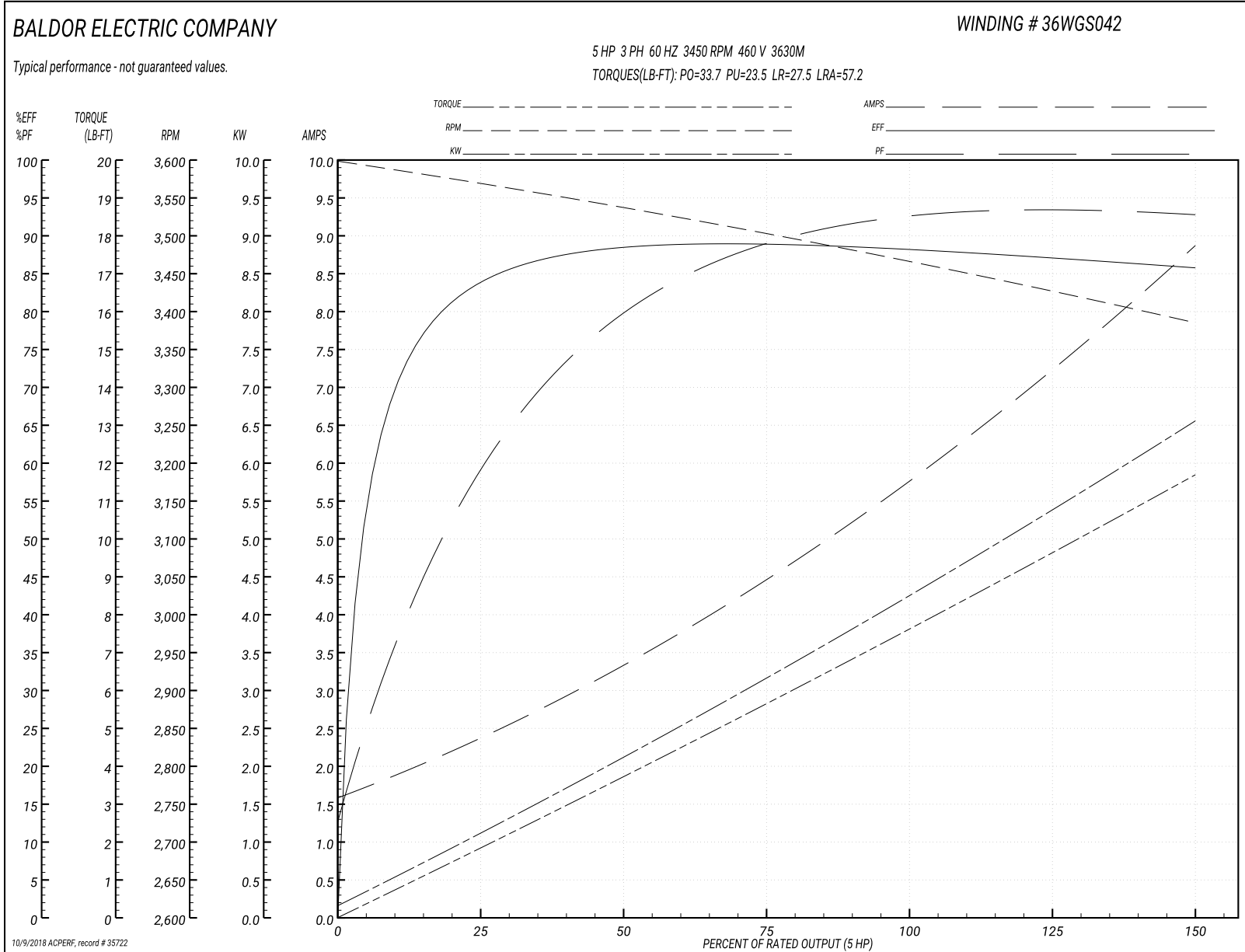
<b>Winding:</b> 36WGS042-R003	<b>Type:</b> 3630M	<b>Enclosure:</b> TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	5			Full Load Torque	7.64 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	11.8/5.9			Breakdown Torque	33.7 LB-FT
R.P.M.	3450			Pull-up Torque	23.5 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	27.5 LB-FT
NEMA Design Code	A	KVA Code	L	Starting Current	57.2 A
Service Factor (S.F.)	1.15			No-load Current	1.68 A
NEMA Nom. Eff.	88.5	Power Factor	91	Line-line Res. @ 25°C	2.27 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	72°C
S.F. Amps				Temp. Rise @ S.F. Load	88°C
				Locked-rotor Power Factor	45
				Rotor inertia	0.134 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	91	93	94	92
Efficiency	83.2	88.4	89.1	88.3	87	85.8	87.5
Speed	3569	3537	3504	3466	3428	3385	3443
Line amperes	2.24	3.26	4.47	5.85	7.26	8.8	6.7

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 59172 - Typical performance - not guaranteed values

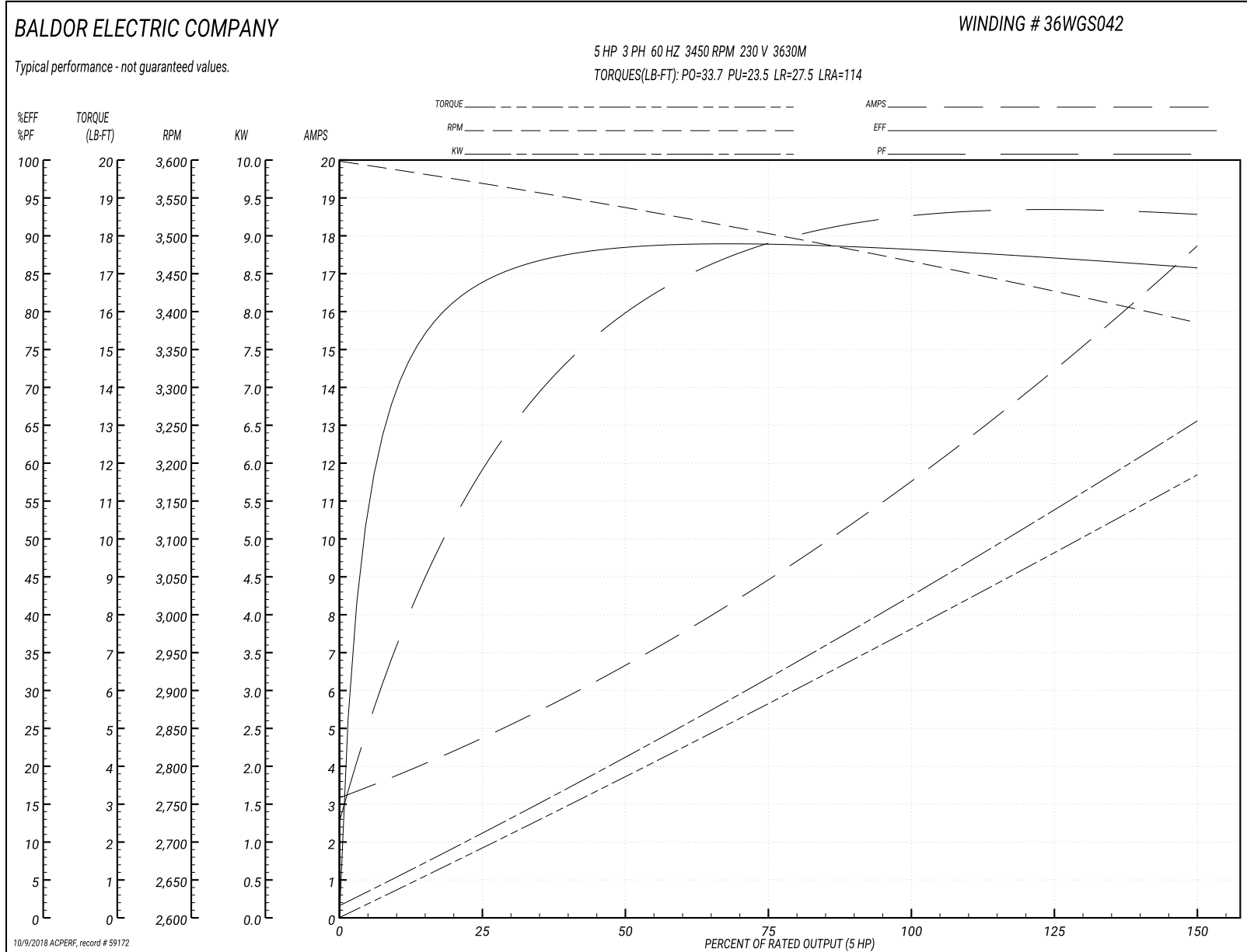
<b>Winding:</b> 36WGS042-R003	<b>Type:</b> 3630M	<b>Enclosure:</b> TEFC
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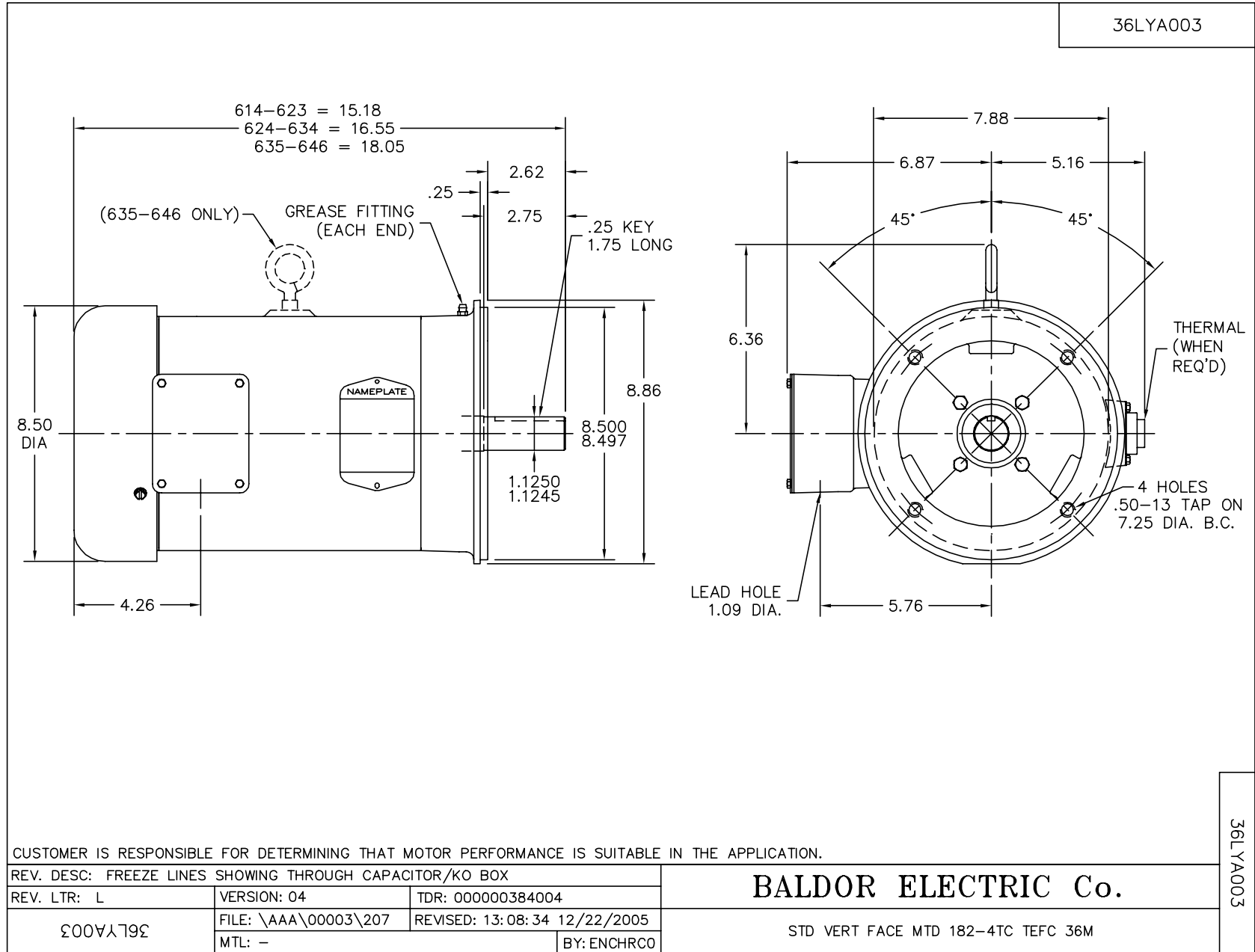
Nameplate Data				230 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	5			Full Load Torque	7.64 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	11.8/5.9			Breakdown Torque	33.7 LB-FT
R.P.M.	3450			Pull-up Torque	23.5 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	27.5 LB-FT
NEMA Design Code	A	KVA Code	L	Starting Current	114 A
Service Factor (S.F.)	1.15			No-load Current	3.36 A
NEMA Nom. Eff.	88.5	Power Factor	91	Line-line Res. @ 25°C	0.576 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	72°C
S.F. Amps				Temp. Rise @ S.F. Load	88°C
				Locked-rotor Power Factor	45.4
				Rotor inertia	0.134 LB-FT <sup>2</sup>

Load Characteristics 230 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	91	93	94	92
Efficiency	83.2	88.4	89.1	88.3	87	85.8	87.5
Speed	3569	3537	3504	3466	3428	3385	3443
Line amperes	4.48	6.52	8.94	11.7	14.5	17.6	13.4

Performance Graph at 230V, 60Hz, 5.0HP Typical performance - Not guaranteed values

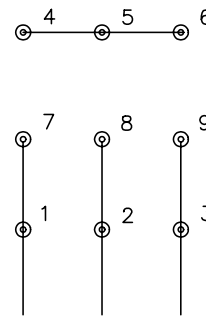




CD0005

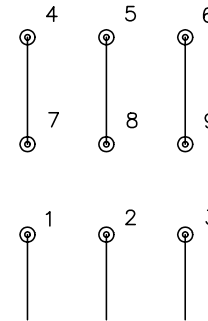


LOW VOLTAGE  
(2Y)



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