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# Customer information packet

## VEM3613

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

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	184C
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	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM 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	11.800 A @ 230.0 V 5.900 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	88.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	5.9 a

## Part detail

Revision	F
Type	AC
Mech. spec.	36A013
Base	
Status	PRD/A
Elec. spec.	36WGS042
Layout	36LYA013
Eff. date	12-16-2024
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	02-27-2015

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	L
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 16 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3630M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	2
<b>Overall Length</b>	15.67 IN
<b>Power Factor</b>	91
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	0.875 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	3450 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP1259L</b>									
<b>CAT.NO.</b>	VEM3613								
<b>SPEC.</b>	36A013S042G1								
<b>HP</b>	5								
<b>VOLTS</b>	230/460								
<b>AMP</b>	11.8/5.9								
<b>RPM</b>	3450								
<b>FRAME</b>	184C		<b>HZ</b>	60		<b>PH</b>	3		
<b>SER.F.</b>	1.15	<b>CODE</b>	L	<b>DES</b>	A	<b>CL</b>	F		
<b>NEMA-NOM-EFF</b>	88.5	<b>PF</b>	91						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>	010A								
<b>DE</b>	6206		<b>ODE</b>	6205					
<b>ENCL</b>	TEFC	<b>SN</b>							

**AC Induction Motor Performance Data**

Record # 32158

Typical performance - not guaranteed values

<b>Winding: 36WGS042-R002</b>		<b>Type: 3630M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	5		<b>Full Load Torque</b>	7.67 LB-FT	
<b>Volts</b>	230/460		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	11.8/5.9		<b>Breakdown Torque</b>	33.7 LB-FT	
<b>R.P.M.</b>	3450		<b>Pull-up Torque</b>	23.5 LB-FT	
<b>Hz</b>	<b>60 Phase</b>	3	<b>Locked-rotor Torque</b>	27.5 LB-FT	
<b>NEMA Design Code</b>	<b>A KVA Code</b>	L	<b>Starting Current</b>	57.2 A	
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	1.68 A	
<b>NEMA Nom. Eff.</b>	<b>88.5 Power Factor</b>	91	<b>Line-line Res. @ 25°C</b>	2.3313 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	72°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	89°C	
			<b>Locked-rotor Power Factor</b>	45	
			<b>Rotor inertia</b>	0.134 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 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>	62	81	88	91	93	93	92
<b>Efficiency</b>	84.1	88.9	89.4	88.7	87.3	85.8	87.9
<b>Speed</b>	3568.7	3537.4	3504.2	3465.8	3428.2	3385	3443
<b>Line amperes</b>	2.24	3.26	4.47	5.85	7.26	8.8	6.7

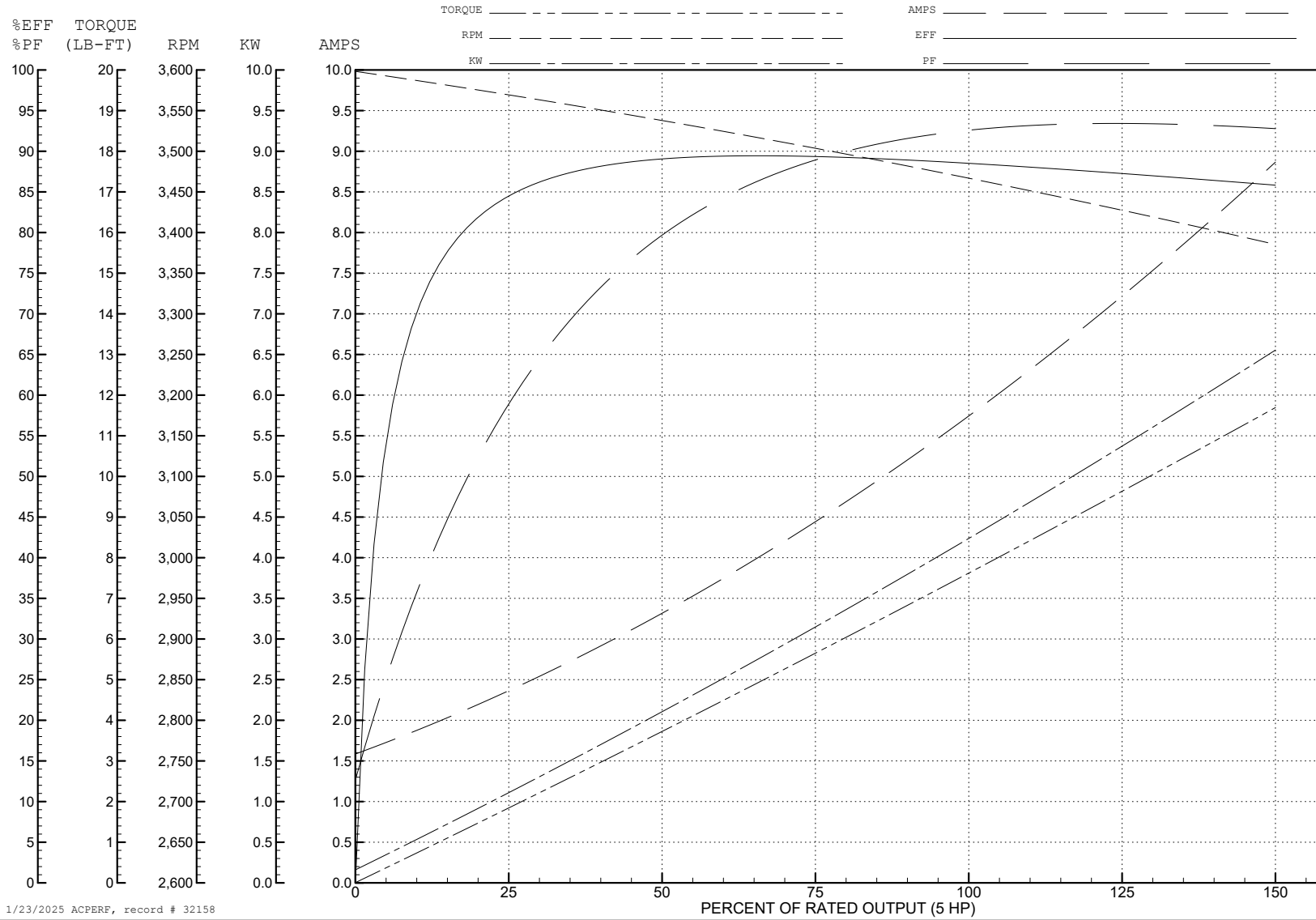
ABB Motors and Mechanical Inc.

WINDING # 36WGS042

5 HP 3 PH 60 HZ 3450 RPM 460 V 3630M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=33.7 PU=23.5 LR=27.5 LRA=57.2



1/23/2025 ACPERF, record # 32158

**AC Induction Motor Performance Data**

Record # 50850

Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M	Enclosure: TEFC	
<b>Nameplate Data</b>			<b>480 V, 60 Hz: High Voltage Connection</b>	
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	37.2 LB-FT
R.P.M.		3450	Pull-up Torque	26.4 LB-FT
Hz	60 Phase	3	Locked-rotor Torque	30.9 LB-FT
NEMA Design Code	A KVA Code	L	Starting Current	60.6 A
Service Factor (S.F.)		1.15	No-load Current	1.91 A
NEMA Nom. Eff.	88.5 Power Factor	91	Line-line Res. @ 25°C	2.26 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load	71°C
S.F. Amps			Temp. Rise @ S.F. Load	85°C
			Locked-rotor Power Factor	45.7
			Rotor inertia	0.134 LB-FT <sup>2</sup>

**Load Characteristics 480 V, 60 Hz, 5 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	56	77	86	90	92	93	91
Efficiency	83.3	88.5	89.4	88.7	87.6	86	88
Speed	3571	3541	3511	3475	3440	3400	3454
Line amperes	2.39	3.32	4.43	5.71	7.03	8.46	6.5

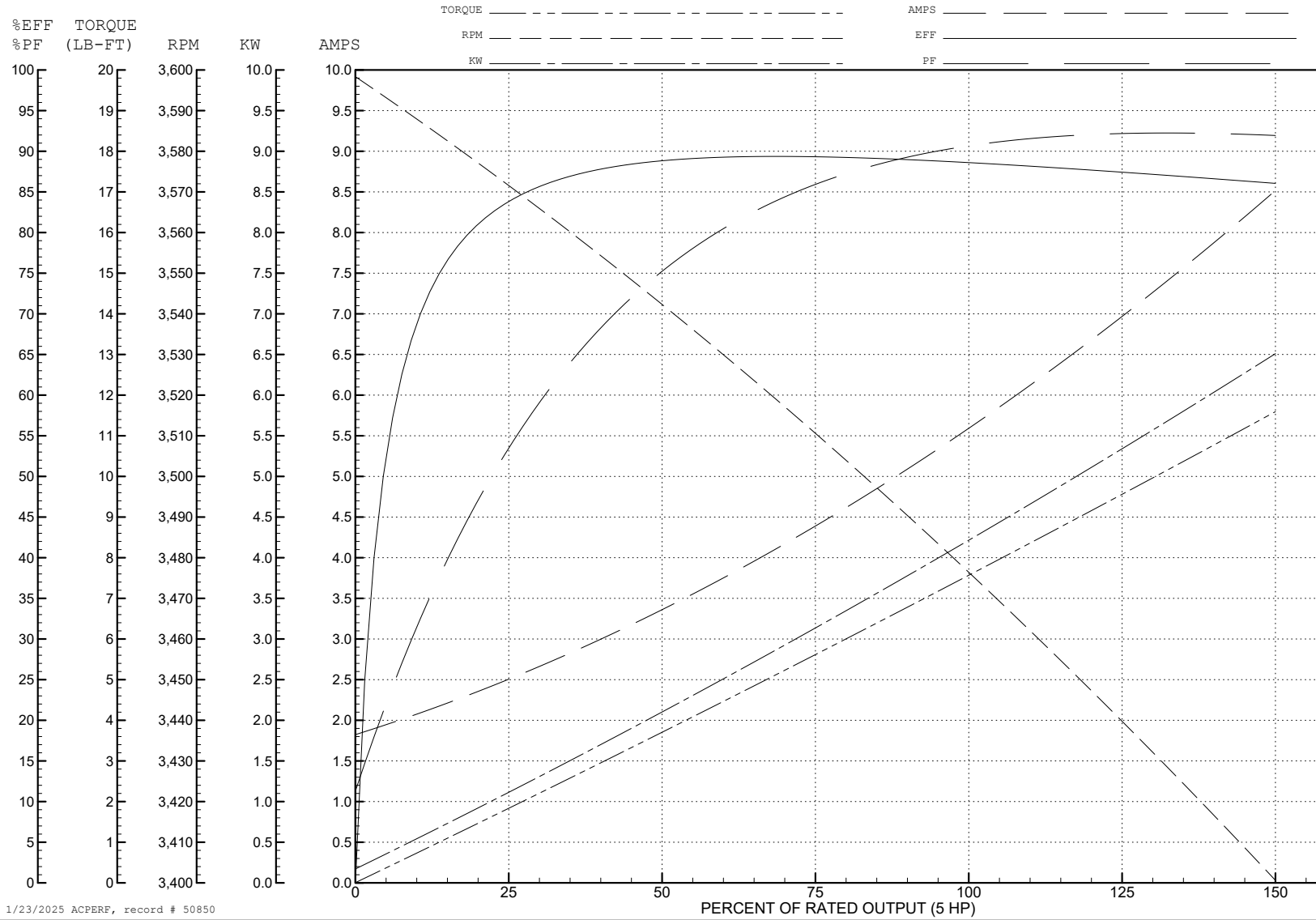
ABB Motors and Mechanical Inc.

WINDING # 36WGS042

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 3450 RPM 480 V 3630M

TORQUES (LB-FT): PO=37.2 PU=26.4 LR=30.9 LRA=60.6



1/23/2025 ACPERF, record # 50850



**AC Induction Motor Performance Data**

Record # 51386

Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M	Enclosure: TEFC	
<b>Nameplate Data</b>			<b>207 V, 60 Hz: Low Voltage Connection</b>	
Rated Output (HP)	5	Full Load Torque	7.73 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	11.8/5.9	Breakdown Torque	26.7 LB-FT	
R.P.M.	3450	Pull-up Torque	18.2 LB-FT	
Hz	60 Phase	Locked-rotor Torque	21.3 LB-FT	
NEMA Design Code	A KVA Code	Starting Current	100 A	
Service Factor (S.F.)	1.15	No-load Current	2.7 A	
NEMA Nom. Eff.	88.5 Power Factor	Line-line Res. @ 25°C	0.566 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	78°C	
S.F. Amps		Temp. Rise @ S.F. Load	99°C	
		Locked-rotor Power Factor	44	
		Rotor inertia	0.134 LB-FT <sup>2</sup>	

**Load Characteristics 207 V, 60 Hz, 5 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	73	87	92	94	94	94	94
Efficiency	85.8	89.5	89.3	88	86.1	84.3	86.9
Speed	3563	3525	3485	3439	3392	3338	3411
Line amperes	4.17	6.68	9.54	12.8	16.1	19.9	14.8

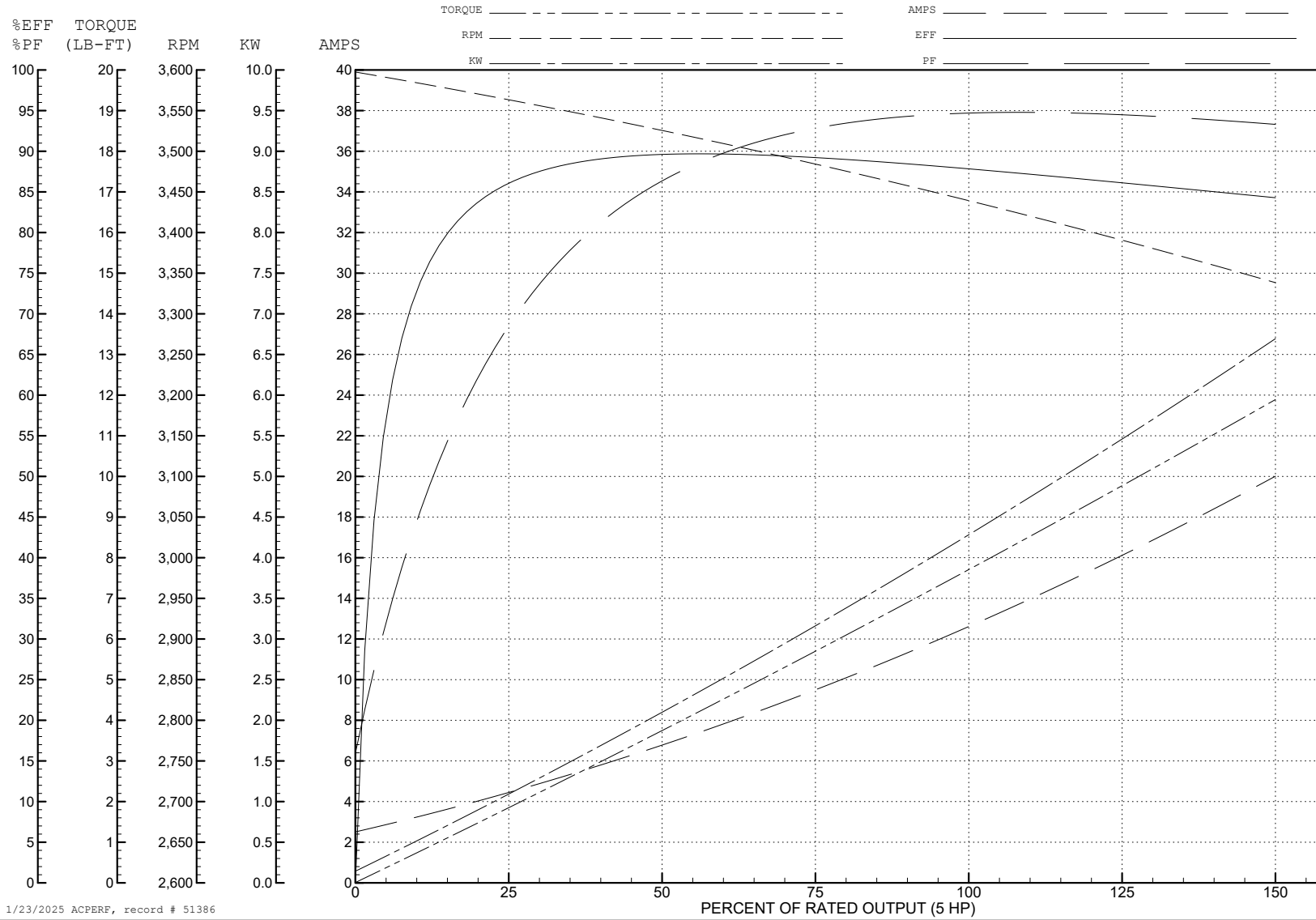
ABB Motors and Mechanical Inc.

WINDING # 36WGS042

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 3450 RPM 207 V 3630M

TORQUES (LB-FT): PO=26.7 PU=18.2 LR=21.3 LRA=100



1/23/2025 ACPERF, record # 51386

**AC Induction Motor Performance Data**

Record # 59341

Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M		Enclosure: TEFC	
<b>Nameplate Data</b>			<b>230 V, 60 Hz: Low Voltage Connection</b>		
Rated Output (HP)	5	Full Load Torque	7.67 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	Locked-rotor Torque	27.5 LB-FT		
NEMA Design Code	A KVA Code	Starting Current	114 A		
Service Factor (S.F.)	1.15	No-load Current	3.36 A		
NEMA Nom. Eff.	88.5 Power Factor	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	84.1	88.9	89.4	88.7	87.3	85.8	87.9
Speed	3569	3537	3504	3466	3428	3385	3443
Line amperes	4.48	6.52	8.94	11.7	14.5	17.6	13.4

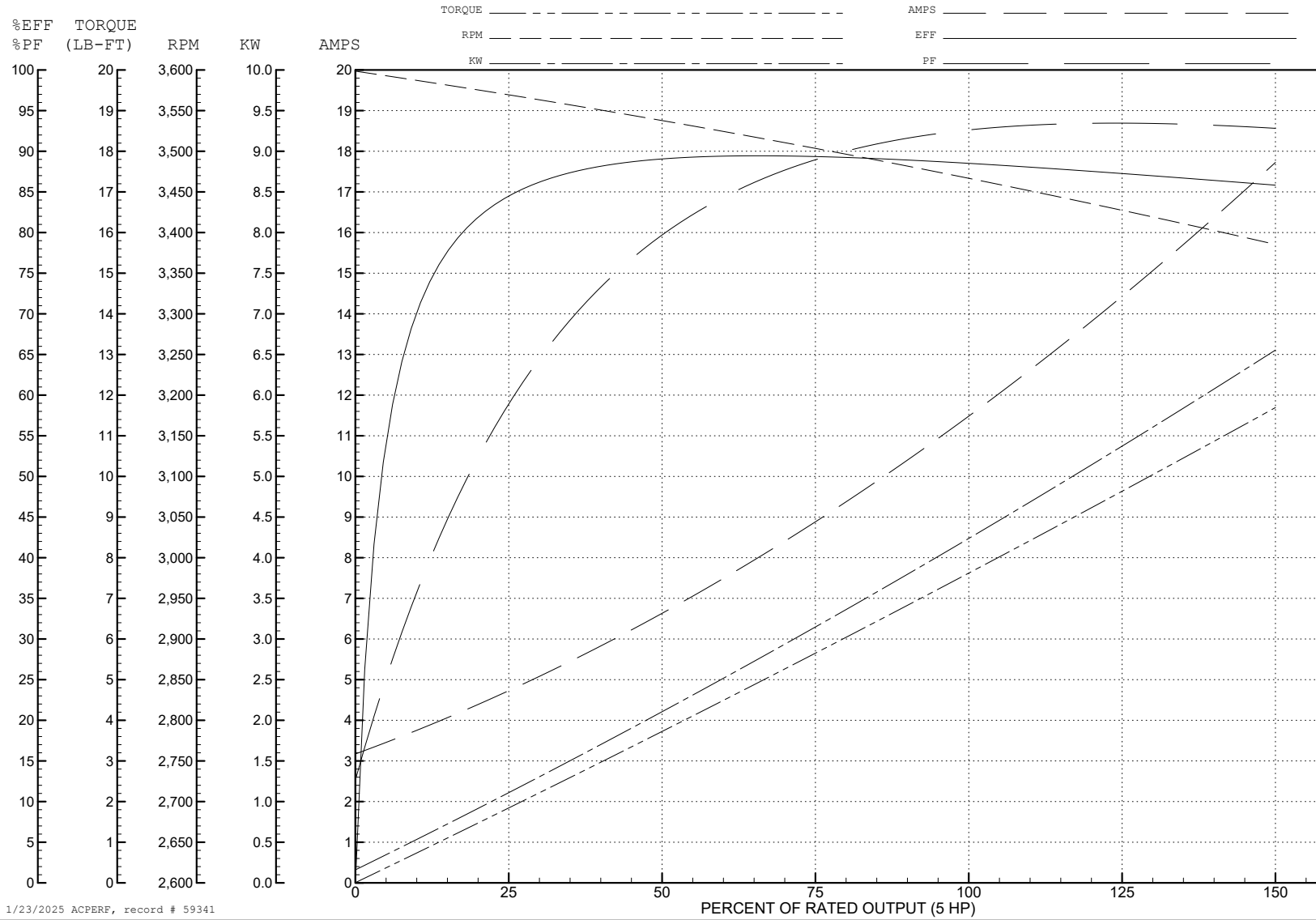
ABB Motors and Mechanical Inc.

WINDING # 36WGS042

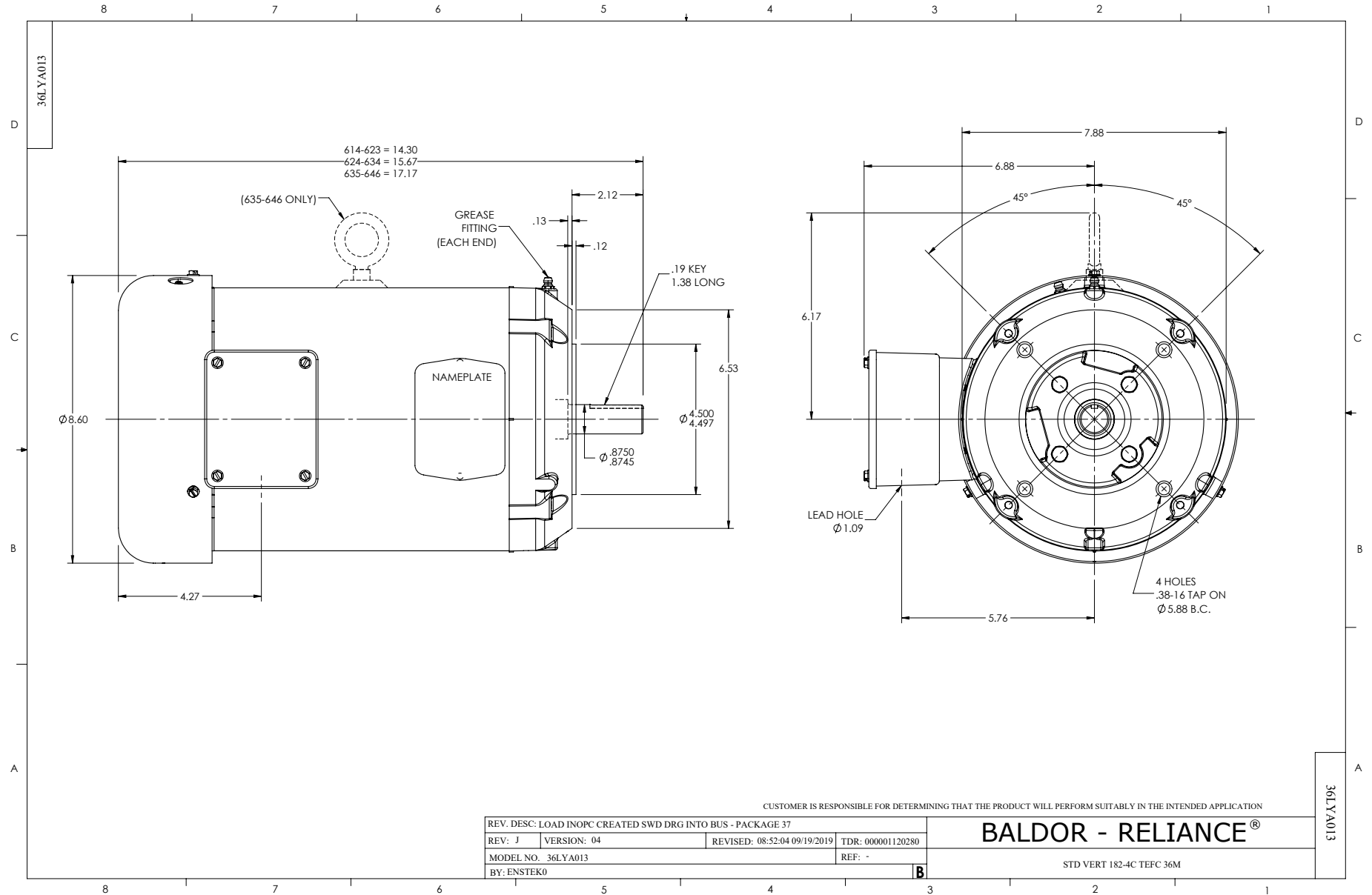
5 HP 3 PH 60 HZ 3450 RPM 230 V 3630M

Typical performance - not guaranteed values.

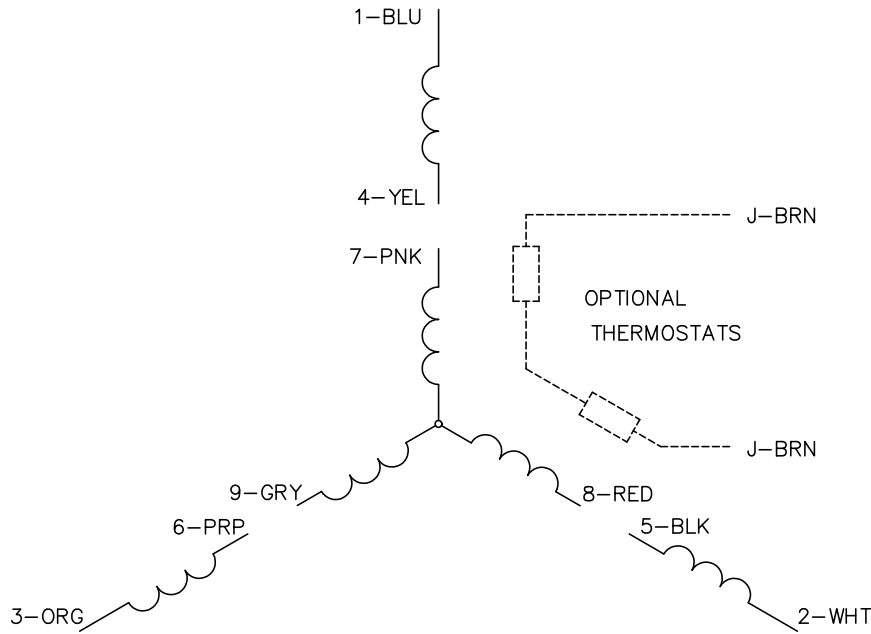
TORQUES (LB-FT): PO=33.7 PU=23.5 LR=27.5 LRA=114



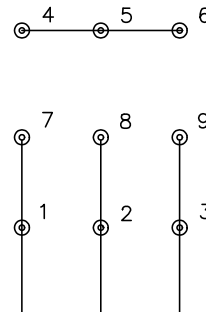
1/23/2025 ACPERF, record # 59341



CD0005

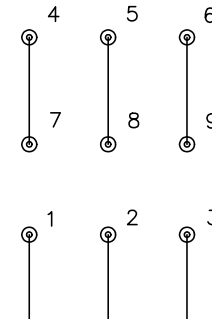


LOW VOLTAGE  
(2Y)



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
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS