

**BALDOR • RELIANCE**

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# Customer information packet

## VFSFWDM3546-E

1HP, 1770RPM, 3PH, 60HZ, 56C, 3522M, TEFC, F1, N

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	56C
Frame Material	Stainless Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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	3.340 A @ 230.0 V 3.300 A @ 208.0 V 1.670 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

## Part detail

Revision	G
Type	AC
Mech. spec.	35E4649
Base	
Status	PRD/A
Elec. spec.	35WGG184
Layout	35LYE4649
Eff. date	03-18-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	13.96 IN
Power Factor	66
Product Family	WD All SD Non-Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

**Nameplate**

<b>NP4427AAA01</b>									
<b>CAT #</b>	VFSFWD3546-E			<b>WT</b>	37	<b>LBS</b>			
<b>SPEC</b>	35E4649G184G1			<b>ENCL</b>	TEFC				
<b>SER #</b>				<b>CC</b>	010A	<b>IP</b>	69		
<b>HP</b>	1	<b>MAG CUR</b>	2.46/1.23						
<b>VOLTS</b>	230/460			<b>NEMA NOM. EFF</b>	85.5				
<b>AMPS</b>	3.34/1.67			<b>PF</b>	66				
<b>RATING</b>	40C AMB-CONT								
<b>RPM</b>	1770			<b>MAX RPM</b>	2700				
<b>FRAME</b>	56C	<b>HZ</b>	60	<b>CODE</b>	N	<b>CLASS</b>	H		
<b>SER.F.</b>	1.15	<b>SF AMP</b>	3.58/1.79		<b>PH</b>	3	<b>DES</b>	B	
<b>DE</b>	6205		<b>ODE</b>	6205					
<b>LUBRICATION</b>	POLYREX EM								
<b>ID LOGO</b>	<b>INVERTER TYPE</b>	<b>VPWM</b>	<b>CHP</b>	60	<b>TO</b>	90	1.5:1		
<b>ID LOGO</b>	<b>WK2</b>	0.159	<b>CT</b>	15	<b>TO</b>	60	4:1		
<b>ID LOGO</b>	<b>SL HZ</b>	1	<b>VT</b>	3	<b>TO</b>	60	20:1		
				<b>QR</b>					
<b>YR</b>									

**AC Induction Motor Performance Data**

Record # 90512

Typical performance - not guaranteed values

<b>Winding: 35WGG184-R018</b>		<b>Type: 3522M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>		1	<b>Full Load Torque</b>		2.99 LB-FT
<b>Volts</b>		230/460	<b>Start Configuration</b>		direct on line
<b>Full Load Amps</b>		3.34/1.67	<b>Breakdown Torque</b>		16.6 LB-FT
<b>R.P.M.</b>		1770	<b>Pull-up Torque</b>		7.42 LB-FT
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	10.32 LB-FT
<b>NEMA Design Code</b>		<b>B KVA Code</b>	N	<b>Starting Current</b>	16.1 A
<b>Service Factor (S.F.)</b>			1.15	<b>No-load Current</b>	1.23 A
<b>NEMA Nom. Eff.</b>	85.5	<b>Power Factor</b>	66	<b>Line-line Res. @ 25°C</b>	14.4 Ω
<b>Rating - Duty</b>			40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	32°C
<b>S.F. Amps</b>				<b>Temp. Rise @ S.F. Load</b>	37°C
				<b>Locked-rotor Power Factor</b>	59.3666
				<b>Rotor inertia</b>	0.159 lb-ft <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 1 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>	27	43	56	66	73	78	70
<b>Efficiency</b>	70.8	81.2	84.5	85.9	85.8	85.2	85.8
<b>Speed</b>	1793	1786	1781	1773	1766	1758	1769
<b>Line amperes</b>	1.25	1.34	1.49	1.67	1.87	2.12	1.79

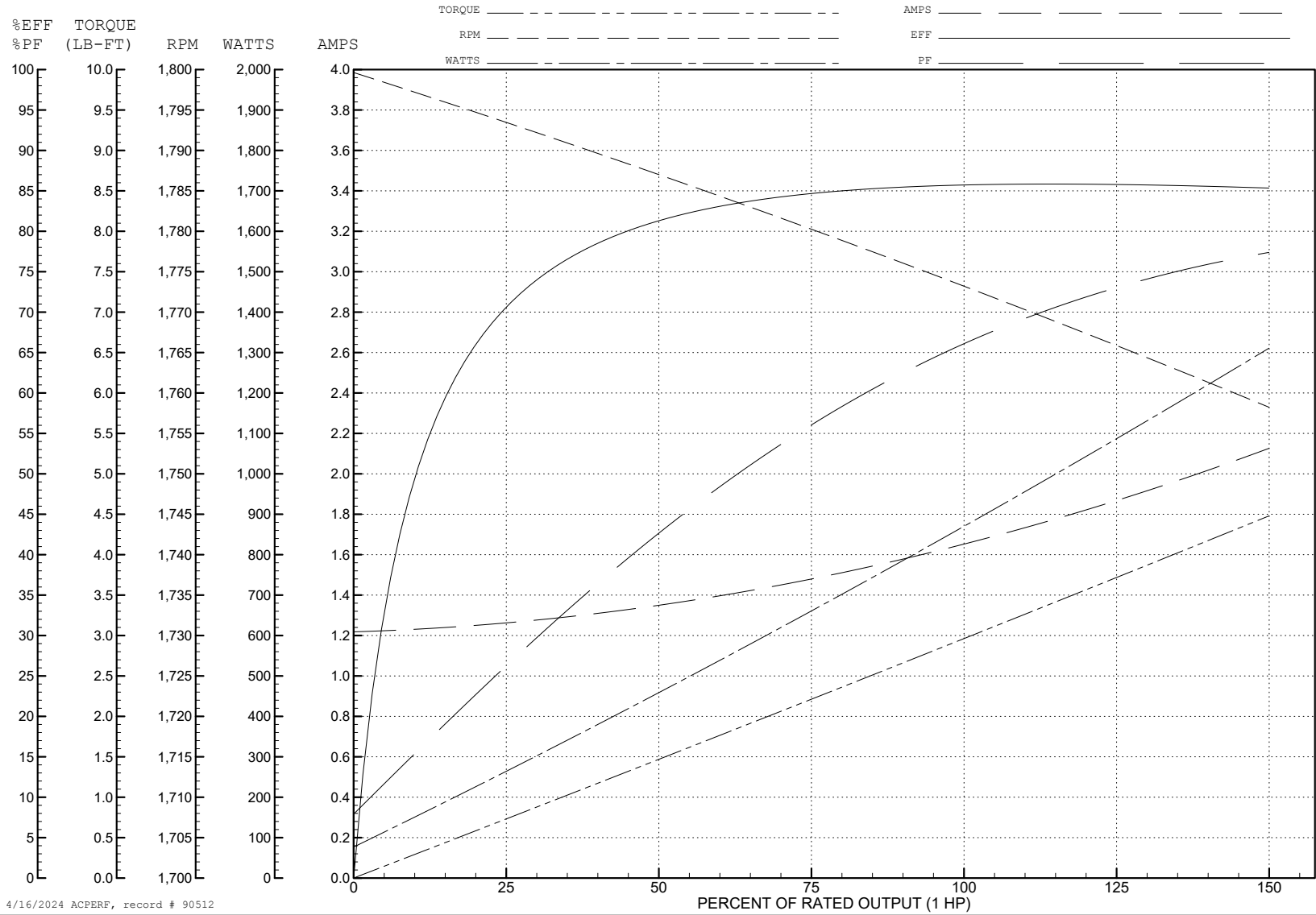
ABB Motors and Mechanical Inc.

WINDING # 35WGG184

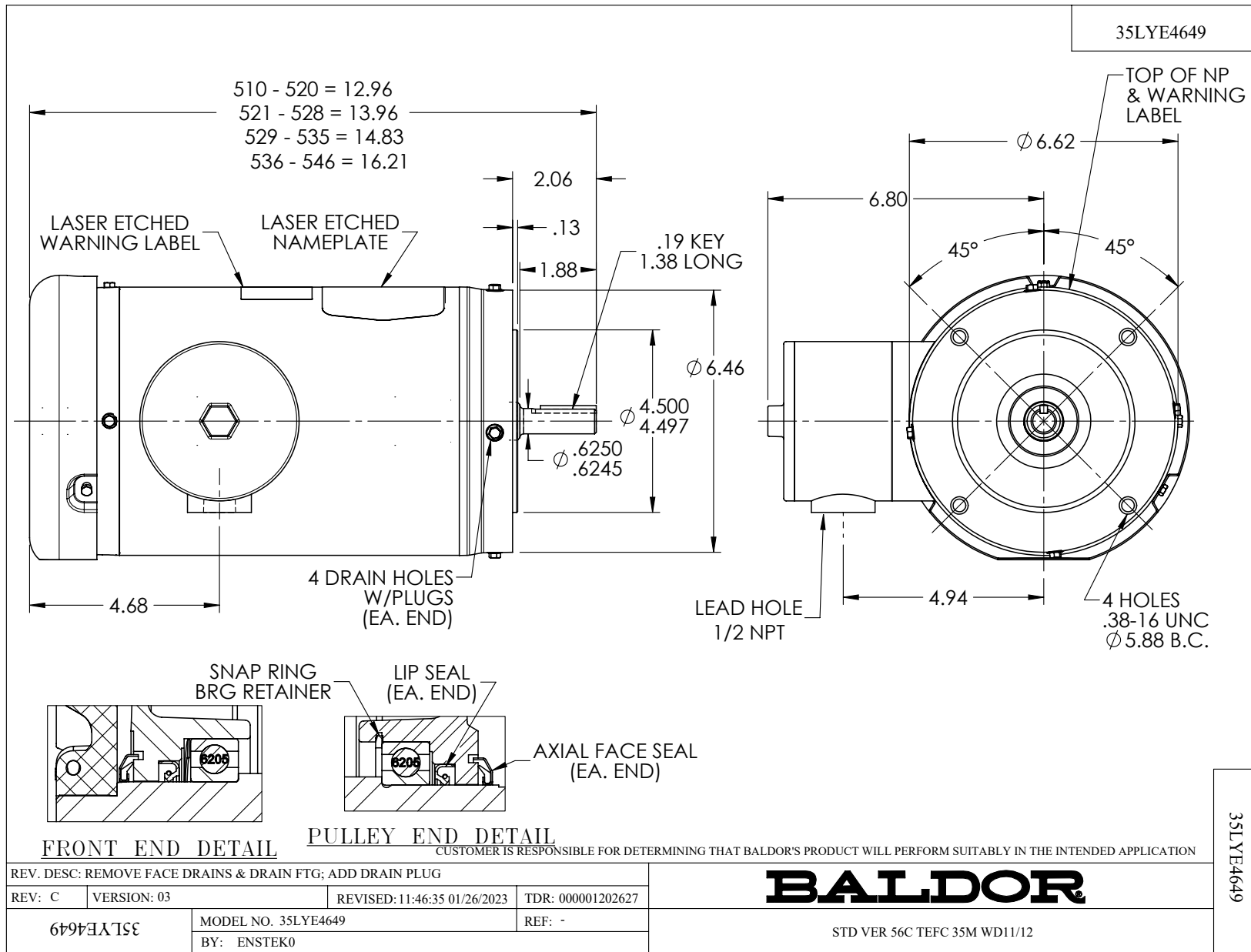
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1



4/16/2024 ACPERF, record # 90512



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