ELECTRIC MOTOR EFFICIENCY TEST REPORT
Form 102
(Revision 3.5)

Filename:	AM3767AA	**Date of Test:**	5-Feb-21
		Date of Report:	11-Feb-21

Motor Nameplate Information

Sample Number:	3767	Serial No.:	I00061ADV
Manufacturer:	Adventech	Phases:	3
Model:	IE-250M-6	Hz.	60
Rated Voltage:	480	RPM	1188
Rated Horsepower:	45	Sync. RPM	1200
Rated Current:	49.4	Type:	B3
Frame:	250M-6	Encl.	TEFC
NEMA Design:	B	Ins. Class:	H
Nameplate Eff.(Nom):	95.6%	SF:	1.2
Nameplate Eff.(Min):		Code:	
Power Factor	0.99	CC No.:	

Condition (New/Used): NEW Date Received: 13-Jan-21

Test Conditions:

Tested Horsepower:	45.0	RPM:	1188
Tested Voltage:	480	Synchronous RPM:	1200
Tested Current:	49.4	Hz:	60

Notes: *Current not decreasing during no-load voltage points
*Extrapolation method used for heat run resistance due to capacitor disconnection

Tested by: Ronnie Alford (signature) Approved by: Michael Zydron (signature).

Customer Information:

Name:	Ron Ballman
Address:	4021 Parkway Dr
	Florence, AL 35630
Contact:	rballman@adventechinc.com

-The results of this report relate only to the specific motor tested.
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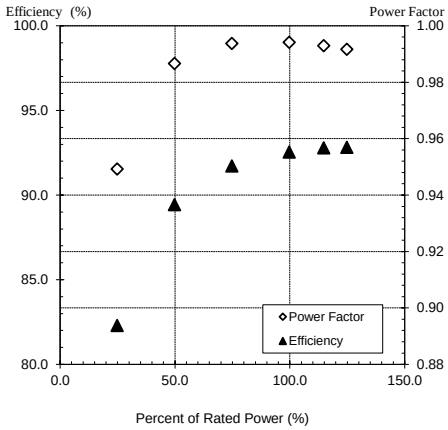
Electric Motor Efficiency Test Report

Test Method
Conforms to: CSA C390-10 and IEEE 112-2017 as required by Title 10 CFR Part 431, Subpart B, Appendix A. (with the exception of notes captured on Page 1)

Test Date: 5-Feb-21
Report Date: 11-Feb-21



Motor Description: Sample# 3767

Manufacturer:	Adventech		
Model:	IE-250M-6		
Serial:	I00061ADV		
Rated Power:	45.0 Hp	(33.6 kW)	3 ϕ
Tested Voltage:	480 V	unbalance=	0.02%
Tested Current:	49.4 A	unbalance=	0.42%
NEMA Design:	B	PF=	0.99
Frame:	250M-6		
Speed:	1188	rpm/60 Hz	
Nameplate Efficiency:	95.6%		
NEMA Encl.:	TEFC		
Ins. class:	H		
File Number:	AM3767AA		

Resistance & Temperature Measurements

	T_{Stator}	Ohms	$T_{Ambient}$
Initial	21.7 °C	0.133	21.9 °C
No Load (Uncoupled)	74.6 °C	0.158	23.2 °C
No Load (Coupled)	80.2 °C	0.160	22.9 °C
Heat Run	92.5 °C	0.170	23.4 °C

Temperature Rise

Temp. rise (Thermocouple)	69.1 °C
Temp. rise (by Resistance)	69.0 °C

Load Measurements

% of Rated Power	**124.8**	**114.8**	**99.7**	**74.8**	**49.8**	**24.8**
Torque output (Nm)	337.4	310.1	269.5	201.8	134.4	67.3
Power input (kW)	45.12	41.50	36.15	27.35	18.67	10.13
Line Current (A)	54.7	50.3	43.7	33.1	22.8	12.8
Speed (rpm)	1189	1190	1191	1194	1196	1198
Winding Temperature (°C)	92.3	92.7	92.4	91.4	89.8	88.1
Ambient Temperature (°C)	23.2	23.1	23.1	23.2	23.2	23.1
Line Voltage (V)	480.0	480.0	480.0	480.1	480.0	480.1
Power Factor	**0.99**	**0.99**	**0.99**	**0.99**	**0.99**	**0.95**

No-Load Measurements

% of Line Voltage	105.0	100.0	95.0	40.0	30.0	25.0
Line Voltage (V)	504.0	480.0	456.0	192.0	144.0	120.0
Line Current (A)	4.7	5.1	5.2	3.7	3.1	2.8
Power Input (kW)	2.01	1.73	1.52	0.47	0.38	0.35
Winding Temperature (°C)	72.6	74.5	72.8	70.7	68.8	67.6

Calculation

Stray Load Correlation Coefficient: 0.9938
B-factor: -0.1293
Point Deleted: None

Core Loss	1.455 kW
Windage - Friction Loss	0.266 kW
Dynamometer Correction	0.441 Nm

% of Rated Power	**124.8**	**114.8**	**99.7**	**74.8**	**49.8**	**24.8**
Stray Load Loss (kW)	0.35	0.30	0.22	0.13	0.06	0.01
Stator Loss (kW) Temp. corrected	0.77	0.65	0.49	0.28	0.13	0.04
Rotor Loss (kW) Temp. corrected	0.40	0.33	0.26	0.14	0.06	0.01
Power Output (kW) Temp. corrected	41.89	38.51	33.46	25.08	16.70	8.34
Efficiency (%)	**92.84**	**92.79**	**92.56**	**91.73**	**89.44**	**82.31**

Efficiency at Rated Load: 92.6 % **Efficiency at 75% Load: 91.7 %**

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