

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM31116-5**

**1HP,1760RPM,3PH,60HZ,56,3520M,OPEN,F1,N**

Part Detail							
Revision:	M	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGM849	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	35B011	Layout:	35LYB011	Poles:	04	Created Date:	01-14-2015
Base:	RG	Eff. Date:	09-05-2019	Leads:	3#18		

Specs			
Catalog Number:	EM31116-5	KVA Code:	L
Enclosure:	OPEN	Lifting Lugs:	No Lifting Lugs
Frame:	56	Locked Bearing Indicator:	No Locked Bearing
Frame Material:	Steel	Motor Lead Quantity/Wire Size:	3 @ 18 AWG
Output @ Frequency:	1.000 HP @ 60 HZ	Motor Lead Exit:	Ko Box
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Termination:	Flying Leads
Voltage @ Frequency:	575.0 V @ 60 HZ	Motor Type:	3520M
XP Class and Group:	None	Mounting Arrangement:	F1
XP Division:	Not Applicable	Power Factor:	71
Agency Approvals:	C UR US ENERGY	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	RoHS Status:	ROHS COMPLIANT
Current @ Voltage:	1.200 A @ 575.0 V	Shaft Extension Location:	Pulley End
Design Code:	B	Shaft Ground Indicator:	No Shaft Grounding
Drip Cover:	No Drip Cover	Shaft Rotation:	Reversible

<b>Duty Rating:</b>	CONT	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Speed Code:</b>	Single Speed
<b>Feedback Device:</b>	NO FEEDBACK	<b>Motor Standards:</b>	NEMA
<b>Front Face Code:</b>	Standard	<b>Starting Method:</b>	Direct on line
<b>Front Shaft Indicator:</b>	None	<b>Thermal Device - Bearing:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Thermal Device - Winding:</b>	None
<b>Insulation Class:</b>	F	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Inverter Code:</b>	Inverter Ready	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3155L</b>										
<b>CAT.NO.</b>	EM31116-5									
<b>SPEC.</b>	35B011M849G1									
<b>HP</b>	1									
<b>VOLTS</b>	575									
<b>AMP</b>	1.2									
<b>RPM</b>	1760									
<b>FRAME</b>	56				<b>HZ</b>	60			<b>PH</b>	3
<b>SER.F.</b>	1.15		<b>CODE</b>	L	<b>DES</b>	B		<b>CL</b>	F	
<b>F.L. AVG. EFF.</b>	85.5		<b>PF</b>	71						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>									<b>USABLE AT 208V</b>	
<b>DE</b>	6205				<b>ODE</b>	6203				
<b>ENCL</b>	OPEN		<b>SN</b>							

Parts List		
Part Number	Description	Quantity
SA292279	SA 35B011M849G1	1.000 EA
RA278396	RA 35B011M849G1	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 EA
51XB1016A06	10-16X3/8 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
35EP3209G00	MASTER ODE,203 BRG	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3210B00	MASTER DE,205 BRG,1.000SH	1.000 EA
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 EA
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	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, MOBIL POLYREX EM - 124047	0.050 LB
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
LB1119N	WARNING LABEL	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
NP3155L	ALUM SUPER-E UL CSA CC "SEMS"	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 61393

Typical performance - not guaranteed values

<b>Winding:</b> 35WGM849-R029		<b>Type:</b> 3520M		<b>Enclosure:</b> OPEN	
<b>Nameplate Data</b>			<b>575 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	1	<b>Full Load Torque</b>	2.99 LB-FT		
<b>Volts</b>	575	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	1.2	<b>Breakdown Torque</b>	13.3 LB-FT		
<b>R.P.M.</b>	1760	<b>Pull-up Torque</b>	8.11 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	8.38 LB-FT
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	L	<b>Starting Current</b>	9.77 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	0.84 A		
<b>NEMA Nom. Eff.</b>	85.5	<b>Power Factor</b>	71	<b>Line-line Res. @ 25°C</b>	23.9 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	36°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	42°C	
			<b>Locked-rotor Power Factor</b>	53.9	
			<b>Rotor inertia</b>	0.118 LB-FT <sup>2</sup>	

**Load Characteristics 575 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>	29	47	60	69	76	80	73
<b>Efficiency</b>	74.4	83.2	85.2	85.8	85.3	84.4	85.5
<b>Speed</b>	1790	1780	1770	1760	1748	1735	1753
<b>Line amperes</b>	0.872	0.977	1.1	1.26	1.46	1.68	1.38

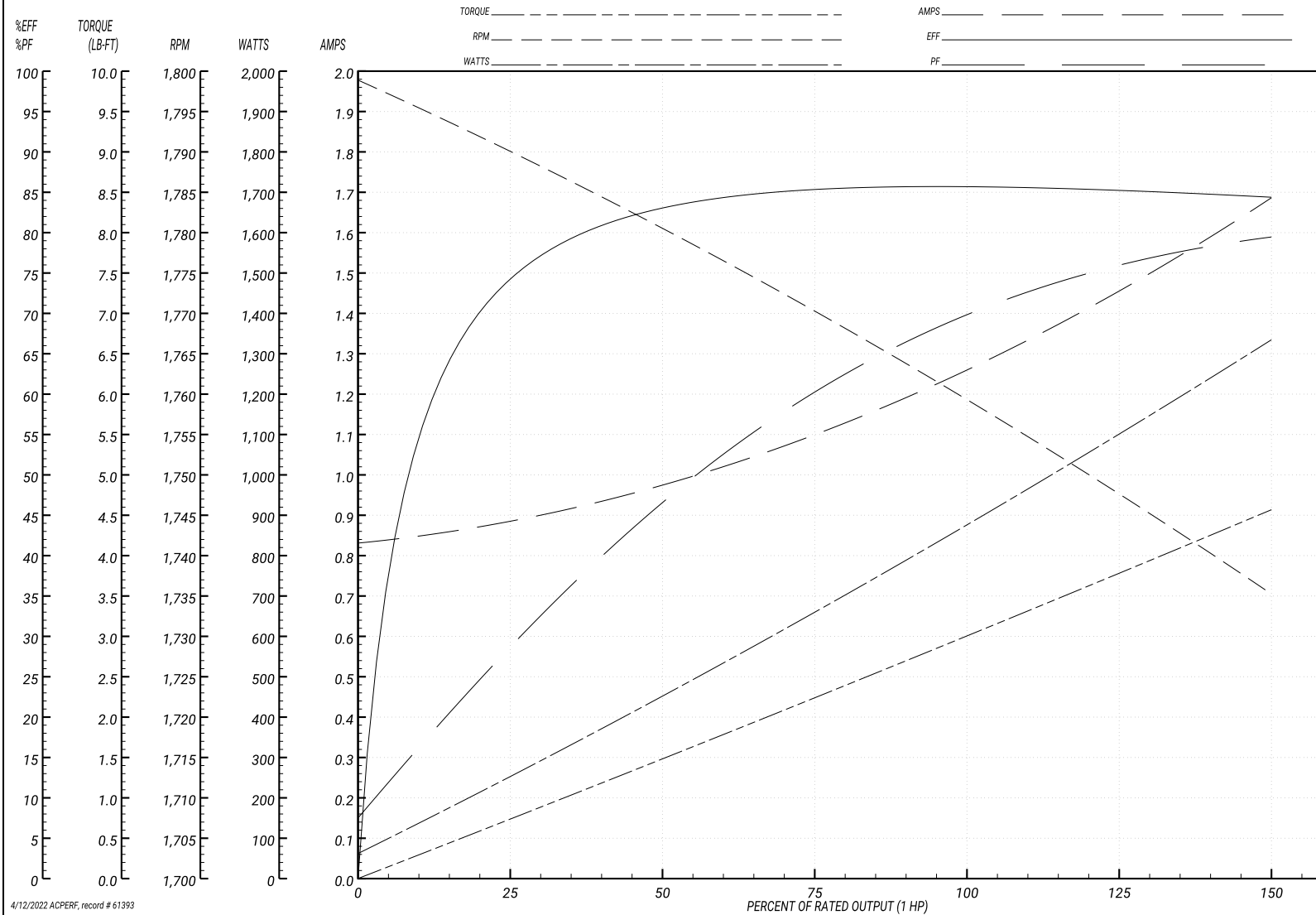
Performance Graph at 575V, 60Hz, 1.0HP Typical performance - Not guaranteed values

**BALDOR ELECTRIC COMPANY**

WINDING # 35WGM849

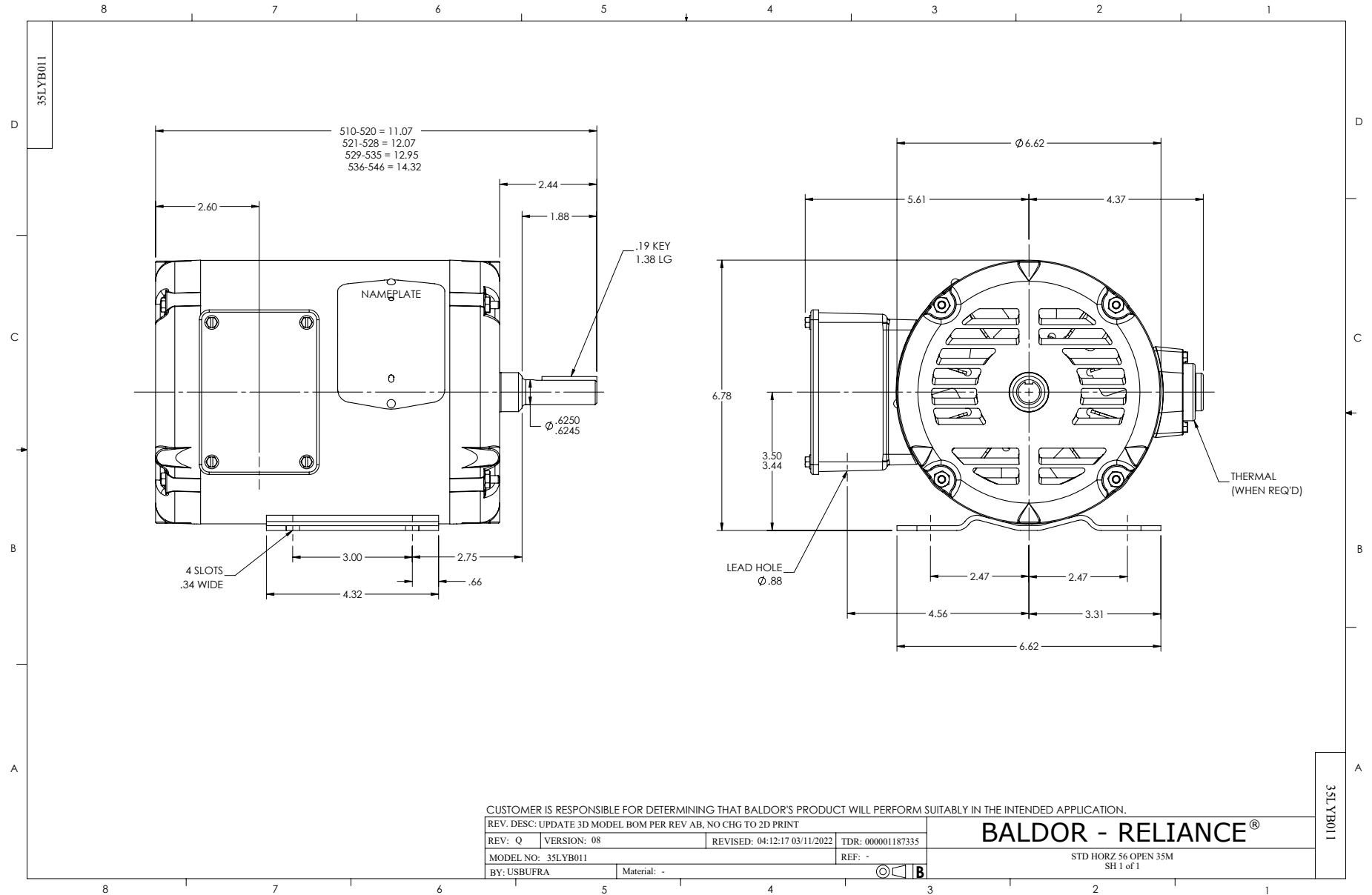
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 575 V 3520M  
 TORQUES(LB-FT): PO=13.3 PU=8.11 LR=8.38 LRA=9.77



4/12/2022 ACPERF, record # 61393





CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
MTL: -		

**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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