

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM3559**

**3HP,3450RPM,3PH,60HZ,56H,3532M,TEFC,F1,N**

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGQ060	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35H876	Layout:	35LYH876	Poles:	02	Created Date:	04-02-2015
Base:	RG	Eff. Date:	03-21-2019	Leads:	9#18		

Specs			
Catalog Number:	EM3559	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	56H	KVA Code:	L
Frame Material:	Steel	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	3.000 HP @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3532M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	92
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	3.600 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	7.200 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	7.900 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	B	<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>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	EM3559									
<b>SPEC</b>	35H876Q060G1									
<b>HP</b>	3									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	7.2/3.6									
<b>RPM</b>	3450									
<b>FRAME</b>	56H				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	L	<b>DES</b>	B		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	86.5		<b>PF</b>	92						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						7.9
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6205			<b>ODE</b>	6203					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1)</b>										
									50Hz 3HP 190/380V 8.8/4.4A	
									SF1.0	

Parts List		
Part Number	Description	Quantity
SA296136	SA 35H876Q060G1	1.000 EA
RA282186	RA 35H876Q060G1	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3123A00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 EA
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 EA
35FH4005A32SP	IEC FH NO GRSR W/3 HOLES - PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	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
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A22	THRUBOLT 10-32 X 10.125	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 50261

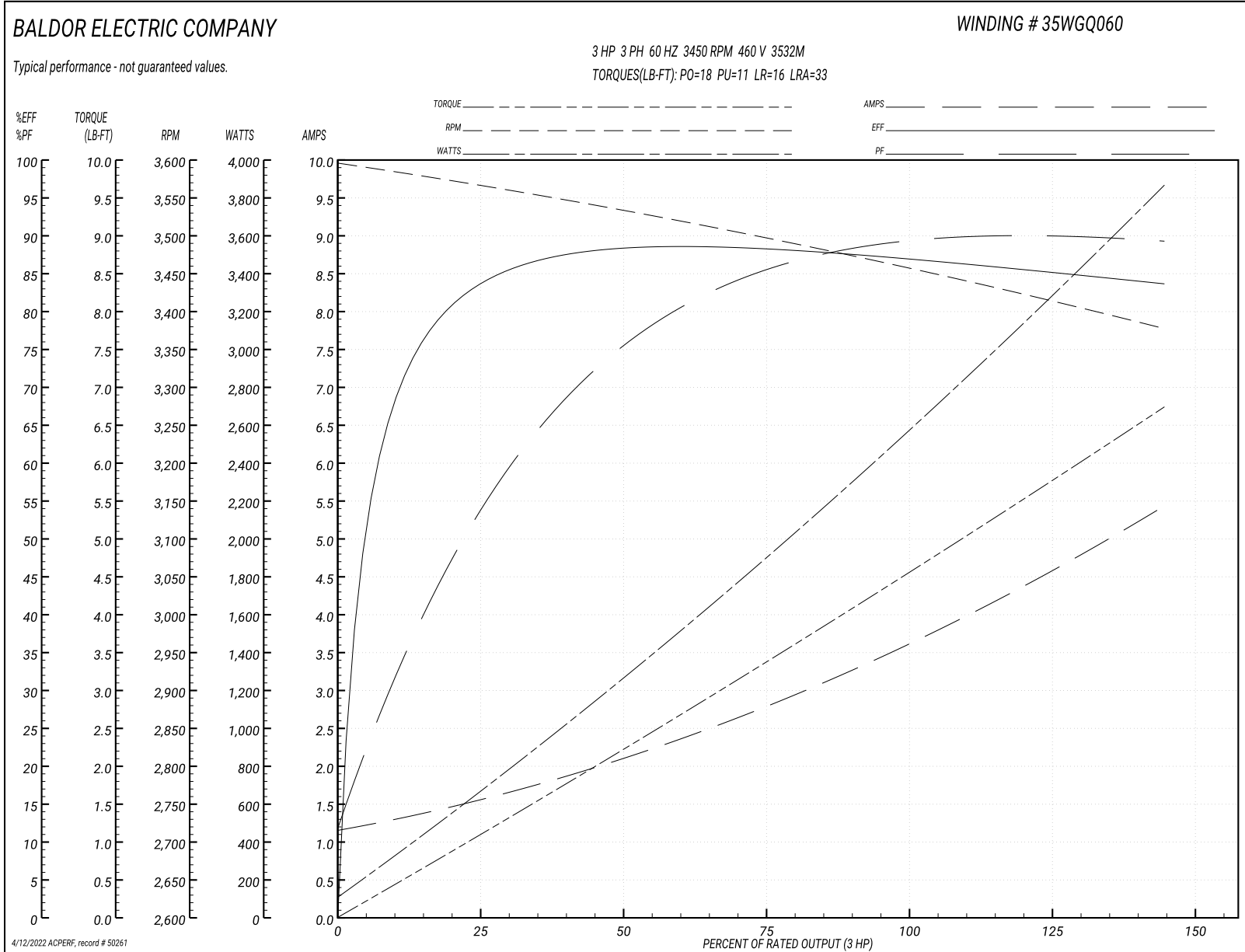
Typical performance - not guaranteed values

<b>Winding: 35WGQ060-R002</b>		<b>Type: 3532M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	3	<b>Full Load Torque</b>	4.5 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	7.2/3.6	<b>Breakdown Torque</b>	18 LB-FT		
<b>R.P.M.</b>	3450	<b>Pull-up Torque</b>	11 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	16 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	L	<b>Starting Current</b>	33 A	
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	1.2 A	
<b>NEMA Nom. Eff.</b>	86.5 <b>Power Factor</b>	92	<b>Line-line Res. @ 25°C</b>	4.72 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	61°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	76°C	

**Load Characteristics 460 V, 60 Hz, 3 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	92	93	94	93
<b>Efficiency</b>	83.7	87.9	88.2	87.2	85.6	83.5	86.2
<b>Speed</b>	3562	3531	3498	3462	3421	3375	3437
<b>Line amperes</b>	1.5	2.1	2.8	3.6	4.5	5.4	4.1

Performance Graph at 460V, 60Hz, 3.0HP Typical performance - Not guaranteed values





**AC Induction Motor Performance Data**

Record # 59171

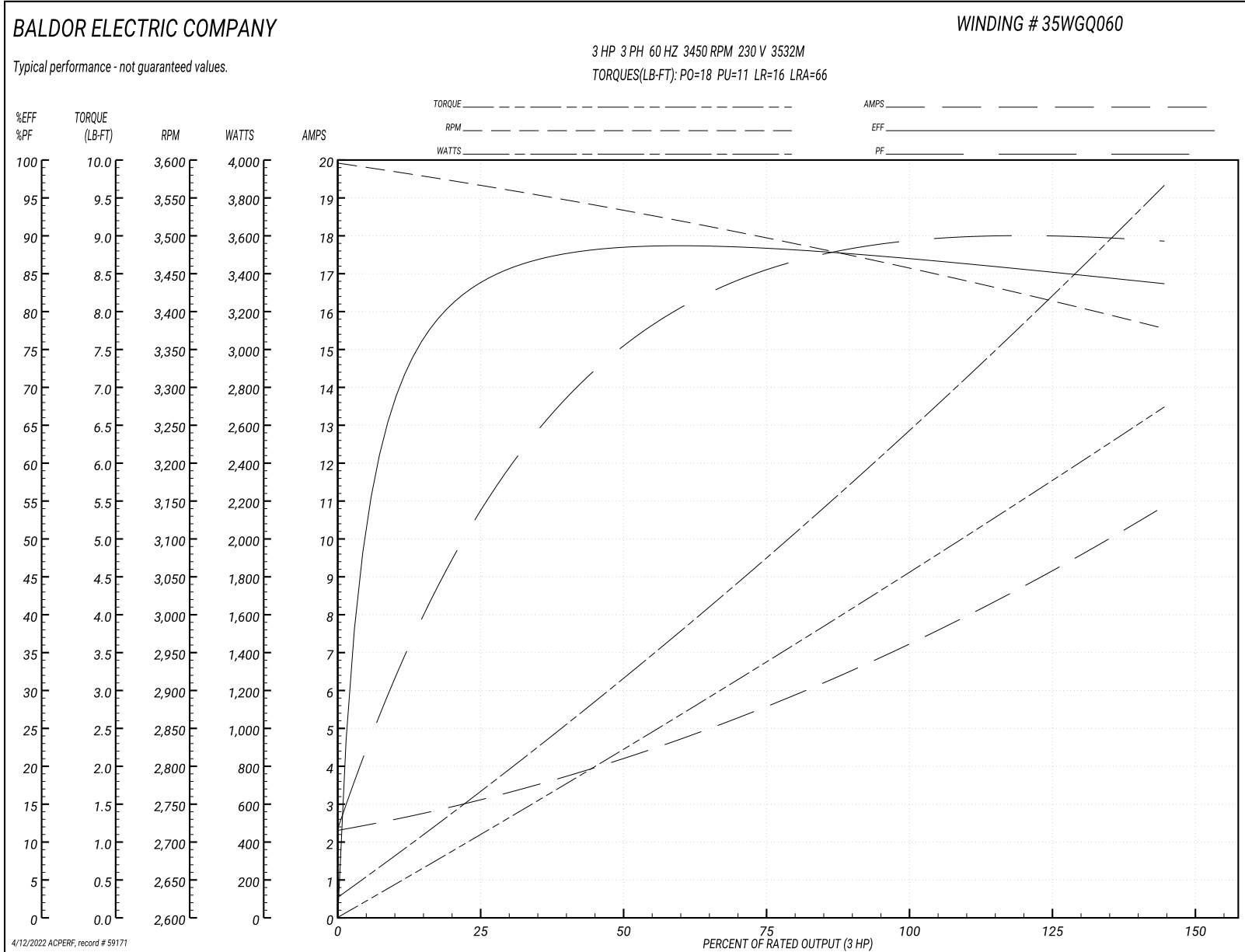
Typical performance - not guaranteed values

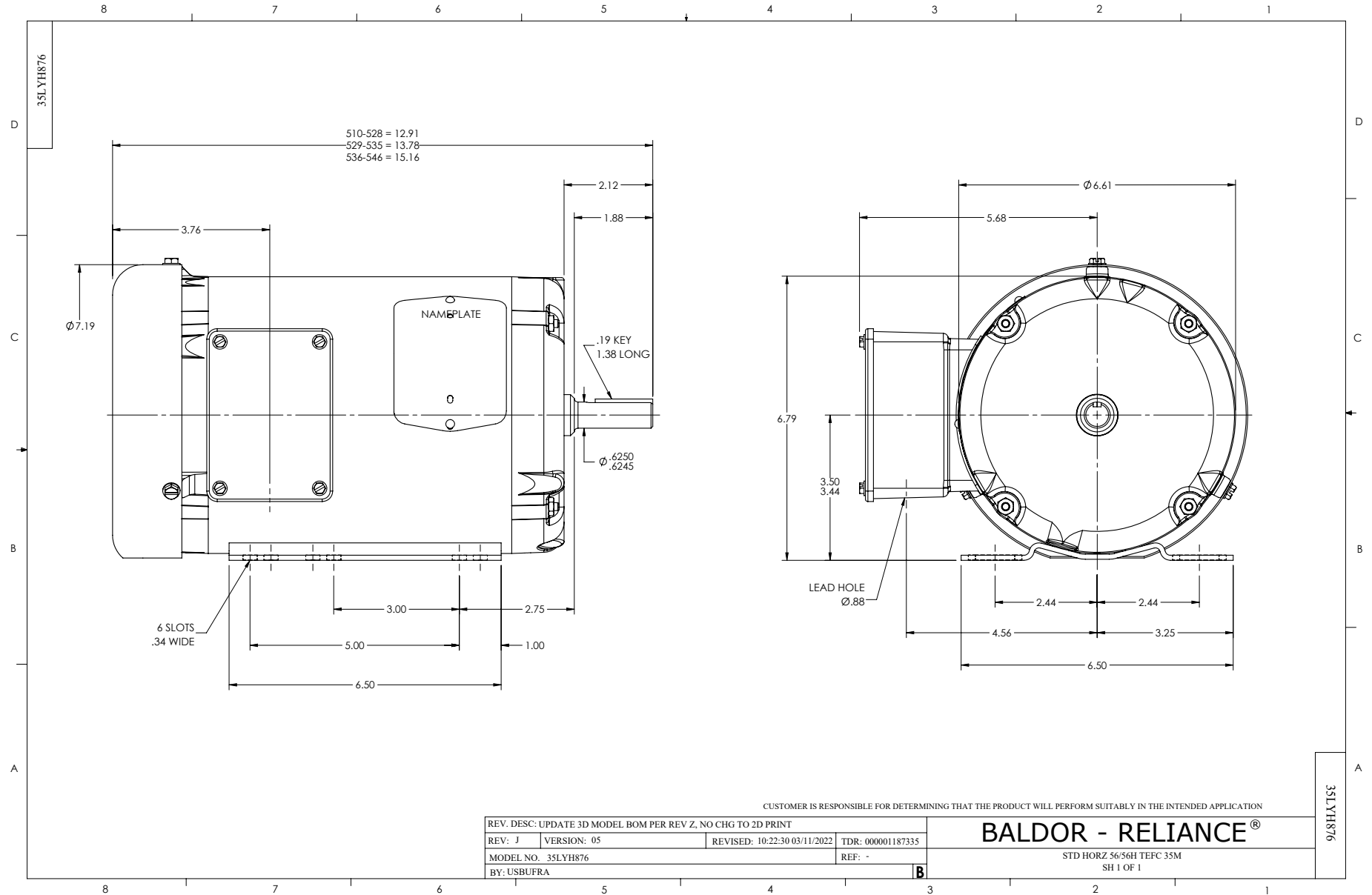
<b>Winding: 35WGQ060-R002</b>		<b>Type: 3532M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>230 V, 60 Hz: Low Voltage Connection</b>		
<b>Rated Output (HP)</b>	3	<b>Full Load Torque</b>	4.5 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	7.2/3.6	<b>Breakdown Torque</b>	18 LB-FT		
<b>R.P.M.</b>	3450	<b>Pull-up Torque</b>	11 LB-FT		
<b>Hz</b>	60 Phase	<b>Locked-rotor Torque</b>	16 LB-FT		
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	L	<b>Starting Current</b>	66 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	2.4 A		
<b>NEMA Nom. Eff.</b>	86.5	<b>Power Factor</b>	92	<b>Line-line Res. @ 25°C</b>	1.17 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	61°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	73°C	
			<b>Locked-rotor Power Factor</b>	47.1	
			<b>Rotor inertia</b>	0.0885 LB-FT <sup>2</sup>	

**Load Characteristics 230 V, 60 Hz, 3 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>	57	77	85	88	89	90	89
<b>Efficiency</b>	84.1	87.9	88.4	87.2	85.7	83.5	86.3
<b>Speed</b>	3562	3531	3498	3462	3421	3375	3437
<b>Line amperes</b>	3	4.2	5.6	7.2	9	10.8	8.28

Performance Graph at 230V, 60Hz, 3.0HP Typical performance - Not guaranteed values





CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: UPDATE 3D MODEL BOM PER REV Z, NO CHG TO 2D PRINT			
REV: J	VERSION: 05	REVISED: 10:22:30 03/11/2022	TDR: 000001187335
MODEL NO. 35LYH876		REF: -	
BY: USBUFRA		B	

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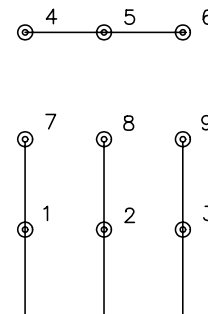
STD HORZ 56/56H TEFC 35M  
SH 1 OF 1

35LYH876

CD0005

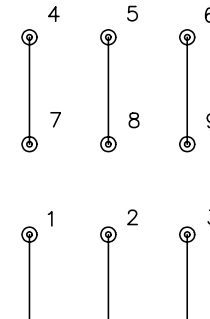


LOW VOLTAGE  
(2Y)



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
900000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005