


# SUNON

## SPECIFICATION FOR APPROVAL

**CUSTOMER** :

**MOTOR TYPE** : 

**DESCRIPTION** : **MagLev Motor Fan**

**DIMENSIONS** : **60X60X25 mm**

**M O D E L** : **HA60251V4-000U-999**

**SUNON SPEC. NO.** : **D06048310G-00**

**CUSTOMER APPROVAL NO.** :

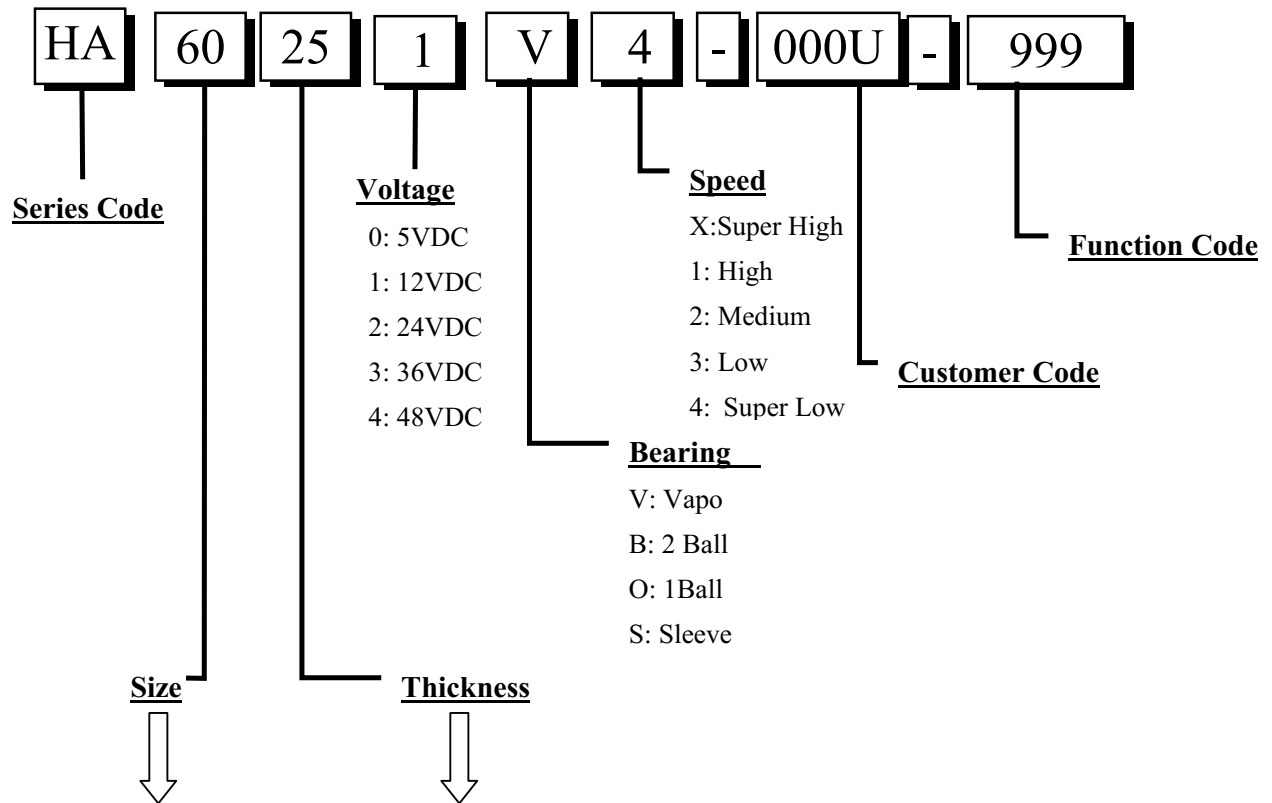
**APPROVED BY CUSTOMER** :

(AUTHORIZED)

DRAWN	Jeff 11/01	CHECKED	March Kiddy	APPROVED	Kelly	SPEC.NO	D06048310G-00
						ISSUE DATE	01. 07. 2010
						EDITION	4
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# I. MODEL NUMBERING SYSTEM



編碼	尺寸(mm)	編碼	尺寸(mm)	編碼	尺寸(mm)	編碼	尺寸(mm)
01~09	01~09	A0~A9	100~109	K0~K9	200~209	V0~V9	300~309
10~19	10~19	B0~B9	110~119	L0~L9	210~219	W0~W9	310~319
20~29	20~29	C0~C9	120~129	M0~M9	220~229	X0~X9	320~329
30~39	30~39	D0~D9	130~139	N0~N9	230~239	Y0~Y9	330~339
40~49	40~49	E0~E9	140~149	P0~P9	240~249	Z0~Z9	340~349
50~59	50~59	F0~F9	150~159	Q0~Q9	250~259		
60~69	60~69	G0~G9	160~169	R0~R9	260~269		
70~79	70~79	H0~H9	170~179	S0~S9	270~279		
80~89	80~89	I0~I9	180~189	T0~T9	280~289		
90~99	90~99	J0~J9	190~199	U0~U9	290~299		



## II. SPECIFICATION

### 1. MECHANICAL CHARACTERISTIC

<b>MOTOR DESIGN</b>	2 phases, 4-poles Brushless DC motor
<b>BEARING SYSTEM</b>	Precise Vapo bearing system
<b>DIMENSIONS</b>	See Page 6
<b>MATERIALS OF FRAME</b>	Thermoplastic PBT of UL 94V-0
<b>MATERIALS OF FAN BLADE</b>	Thermoplastic PBT of UL 94V-0
<b>DIRECTION OF ROTATION</b>	Counter-clockwise viewed from front of fan blade
<b>MOUNTING HOLES</b>	Diameter 4.3 mm in 8 holes
<b>WEIGHT</b>	41.5 g

### 2. ELECTRIC CHARACTERISTIC

<b>RATED VOLTAGE</b>	12 VDC
<b>RATED CURRENT</b>	60 mA / Max. 69 mA
<b>RATED POWER CONSUMPTION</b>	0.7 WATTS / Max. 0.83 WATTS
<b>OPERATING VOLTAGE RANGE</b>	4.5~13.8 VDC
<b>STARTING VOLTAGE</b>	4.5 VDC (25 deg. C POWER ON/OFF)
<b>OPERATING TEMPERATURE RANGE</b>	-10 to + 70 deg. C
<b>STORAGE TEMPERATURE RANGE</b>	-40 to + 70 deg. C

### 3. PERFORMANCE CHARACTERISTIC

<b>RATED SPEED</b>	<b>2500 RPM ± 15% at rated voltage</b>
<b>AIR FLOW</b>	<b>13.8 CFM</b>
<b>STATIC PRESSURE</b>	<b>0.04 Inch-H<sub>2</sub>O</b>
<b>ACOUSTIC NOISE</b>	<b>13.8 dB(A)</b>
<b>AIR FLOW V.S. PRESSURE</b>	<b>See Page 5</b>
<b>INSULATION CLASS</b>	<b>UL Class A</b>
<b>INSULATION RESISTANCE PLASTIC HOUSING</b>	<b>500M ohm at 500 VDC between internal stator and lead wire (+)</b>
<b>DIELECTRIC STRENGTH</b>	<b>Applied AC 500 V for one minute or AC 600 V for 2 Seconds between housing and lead wire (+)</b>
<b>LIFE EXPECTANCY</b>	<b>70,000 Hours at 40 deg. C, 65% humidity, 90% CL.</b>
<b>PROTECTION</b>	<input type="checkbox"/> <b>Automatic Restart</b> Note: In a situation where the fan is locked by an external force while the electricity is on, an increase in coil temperature will be prevented by temporarily turning off the electrical power to the motor. The fan will automatically restart when the locked rotor condition is released.
	<input type="checkbox"/> <b>Polarity Protection</b>

### 4. SAFETY

SAFETY	UL	CUR	TUV	CE
NO.	E77551	E77551	✓	✓

