

SUNON.

LED Lighting Technology

SUNON LED Total Thermal Solution



Official Agent:



www.sunon.com

Active Cooling Solution is **4x** more efficient at *Thermal Convection* than Passive!

■ Comparison of Active / Passive Cooling Solution (LED Power 2000lm, 20W)

Active Cooling (LA002-003A99DN)		Passive Cooling (RA002-002999DN)
Tc=45°C Win	→ Tcase Temperature reduce 6°C	Tc=51°C
85x85x35.5 mm Win	→ Volume Reduce over 62%	φ 170x30 mm
153 g Win	→ Weight Reduce over 73%	570 g
Aluminum with less to cost down Win	→ Cost Down more than 60%	Aluminum Large size, High-cost

■ Advantages



High Lumen

MR16 up to 520lm(13W)
A19 up to 1300lm (20W)
Spot light up to 5000lm (75W)



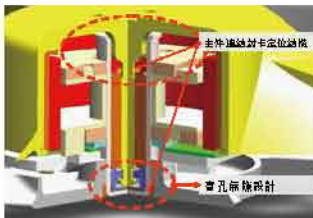
Meet MR16 / A19 standard size

Sunon's active cooling solution is four times more effective than passive cooling. It has developed the best high lumen and the space cooling requirement for the MR16 and A19.



Lower Cost

An active cooling can be significantly reduced size, weight, metallic materials use, and costs up to 60%



Long Life

DR Maglev motor fan with better dust-resistance, super silence advantages, and cooling module life of up to 70,000 hours (60° C). Warranty may be extended to 5 years on demand.



Dust-proof (*) The dust settlement is equal to a 5-year and 2-month dust fall.

After a test of 72 hours operation according to the IEC60529 dust test standard (*), the results show that the Sunon fan motor functioned normally. When the fan was disassembled, no dust was found inside the fan motor or along the fan axis.



Super Silence

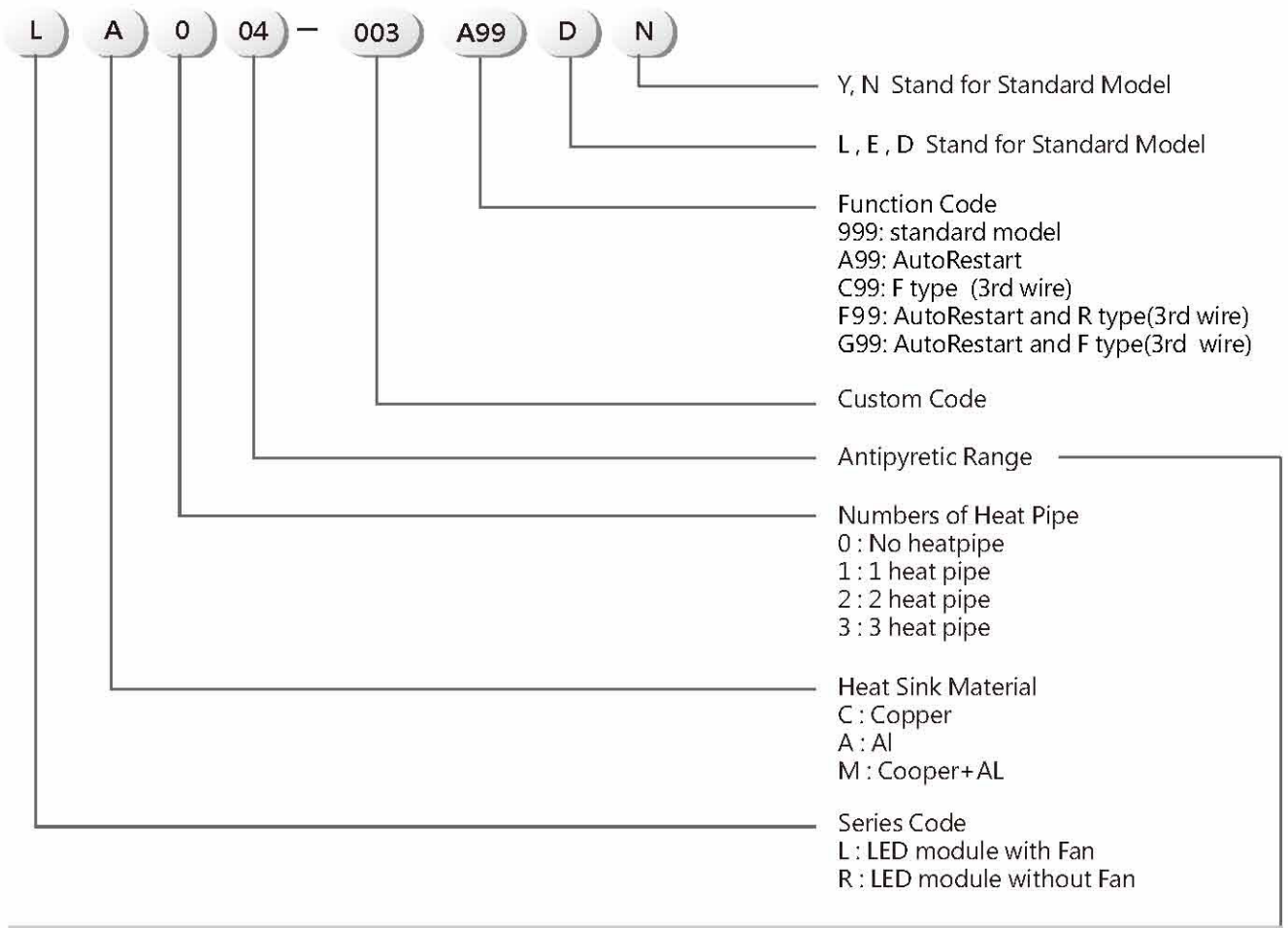
Sunon introduced acoustics engineering (Sound Quality) in our fan products makes it have great sound quality curve under 20 phon. We help the sounds made by Sunon products to create a more agreeable operating environment.

■ Features

- Sunon LED cooling modules have been adopted by many international LED module manufacturers, including Philips, Osram, Vossloh, Xicato, Tridonic, GE, and others.
- Sunon products are widely applied to LED bulb lamp (A19), MR16, down light, and spot light.
- Over 300 patents related to LED lighting cooling around the world.
- Successfully solves LED light decline, color rolling, overheat, and other problems.
- Active cooling solution allows lamps to be more lightweight and compact.
- Bearings designed with patented DR MagLev motors can effectively extend motor life.
- Use of Sunon's super silence fan design which produces the sound lower than that can be detected by the human ear (20 phon curve); this allows LED bulbs to meet the American Energy Star noise regulations. (*)

(*) American Energy Star regulation on noise: MR16 Measured at 12 inches, noise level is not allowed to exceed 24 dBA.

SUNON. LED Cooling Module Model Numbering System



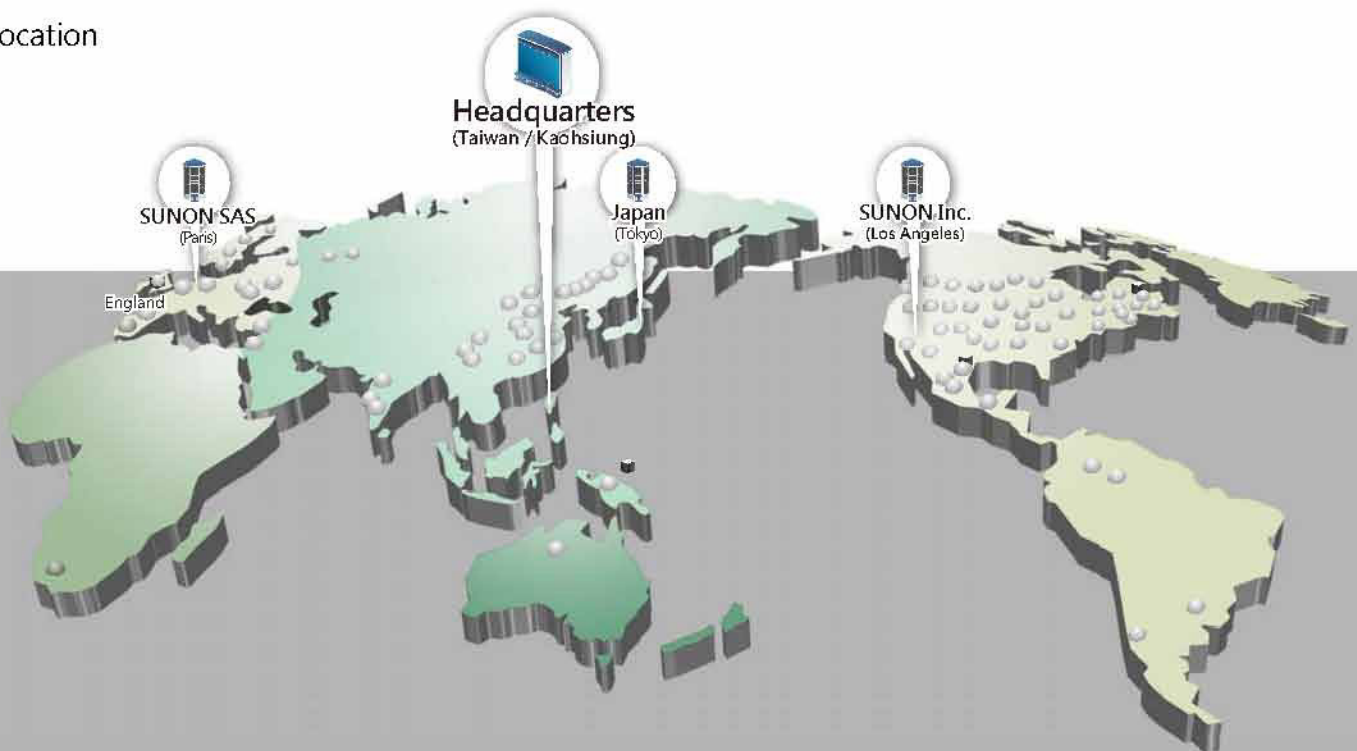
Code	Watts(W)	Code	Watts(W)	Code	Watts(W)	Code	Watts(W)
00	0 - 10	05	51 - 60	10	101 - 110	15	151 - 160
01	11 - 20	06	61 - 70	11	111 - 120	16	161 - 170
02	21 - 30	07	71 - 80	12	121 - 130	17	171 - 180
03	31 - 40	08	81 - 90	13	131 - 140	18	181 - 190
04	41 - 50	09	91-100	14	141 - 150	19	191 - 200

SUNON.

Sunon was founded in 1980 and has become an international trademark that is well recognized and featured on products sold worldwide. Over more than 30 years, Sunon has been committed to invention and innovation of fans, motors, and cooling modules. Step by step, Sunon has now become a global leading cooling solution provider and takes the lead in a variety of application fields.

Sunon's concentration for more than 30 years on the research and development of cooling technology enables Sunon to help LED bulb manufacturers to effectively eliminate heat, and this allows the LED bulb makers to introduce higher lumen in their limited bulb space, thus increasing the LED's brightness. In addition, Sunon's cooling modules can also effectively reduce temperature in the power system in LED lighting to effectively extend a bulb's service life. Sunon commits itself to integrating clients' needs in an aim to provide them with optimum cooling solutions for LED lighting.

■ Global Location



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