

SynJet® Spotlight Cooler 21W

SynJet cooling technology provides the most reliable thermal management solution available. This LED cooler has been developed by Nuventix, for cooling tracklight, spotlight, and recessed downlight modules.

- Only 75mm diameter for small designs
- Cools up to 21 W
- 100K Hours Lifetime
- Energy Efficient

Specifications¹

Thermal & Acoustic

| SynJet Setting ² | θ _{s-a} ³ | TDP ⁴ (W) | SPL (dBA) ⁵ |
|-----------------------------|-------------------------------|----------------------|------------------------|
| High Performance | 1.41 | 21 | 32 |
| Standard Performance | 1.75 | 17 | 22 |
| Silent Performance | 2.33 | 13 | 18 |



Electrical

| SynJet Setting ² | Voltage (VDC) +/- 5% | Current (mA) ⁶ | | | Pavg (W) | Voltage (VDC) +/- 5% | Current (mA) ⁶ | | | Pavg (W) |
|-----------------------------|----------------------|---------------------------|------|-------|----------|----------------------|---------------------------|------|-------|----------|
| | | Imin | Iavg | Ipeak | | | Imin | Iavg | Ipeak | |
| High Performance | 5 | 10 | 360 | 720 | 1.8 | 12 | 10 | 167 | 334 | 2.0 |
| Standard Performance | | | 300 | 600 | 1.5 | | | 142 | 284 | 1.7 |
| Silent Performance | | | 200 | 400 | 1.0 | | | 100 | 200 | 1.2 |

| All Settings | Min | Max | Units | Conditions |
|-----------------------------|-----|------|-------|------------------------------------|
| Operating Temperature | -40 | 60 | °C | Air temperature surrounding cooler |
| Storage Temperature | -40 | 85 | °C | Air temperature surrounding cooler |
| Storage Altitude | | 15K | m | Above sea level |
| Operating Relative Humidity | 5 | 95 | % | Non-condensing |
| Weight | | 300 | g | SynJet only |
| Reliability | | 100K | hrs | L10 @ 60°C |
| Regulatory Compliance | | | | CE, UL, FCC Part 15 Class B, RoHS |

¹ All values are typical at 25°C unless otherwise stated.

² The Level Select model should be used for discrete performance settings. Follow the instructions in the Product Design Guide for adjusting settings.

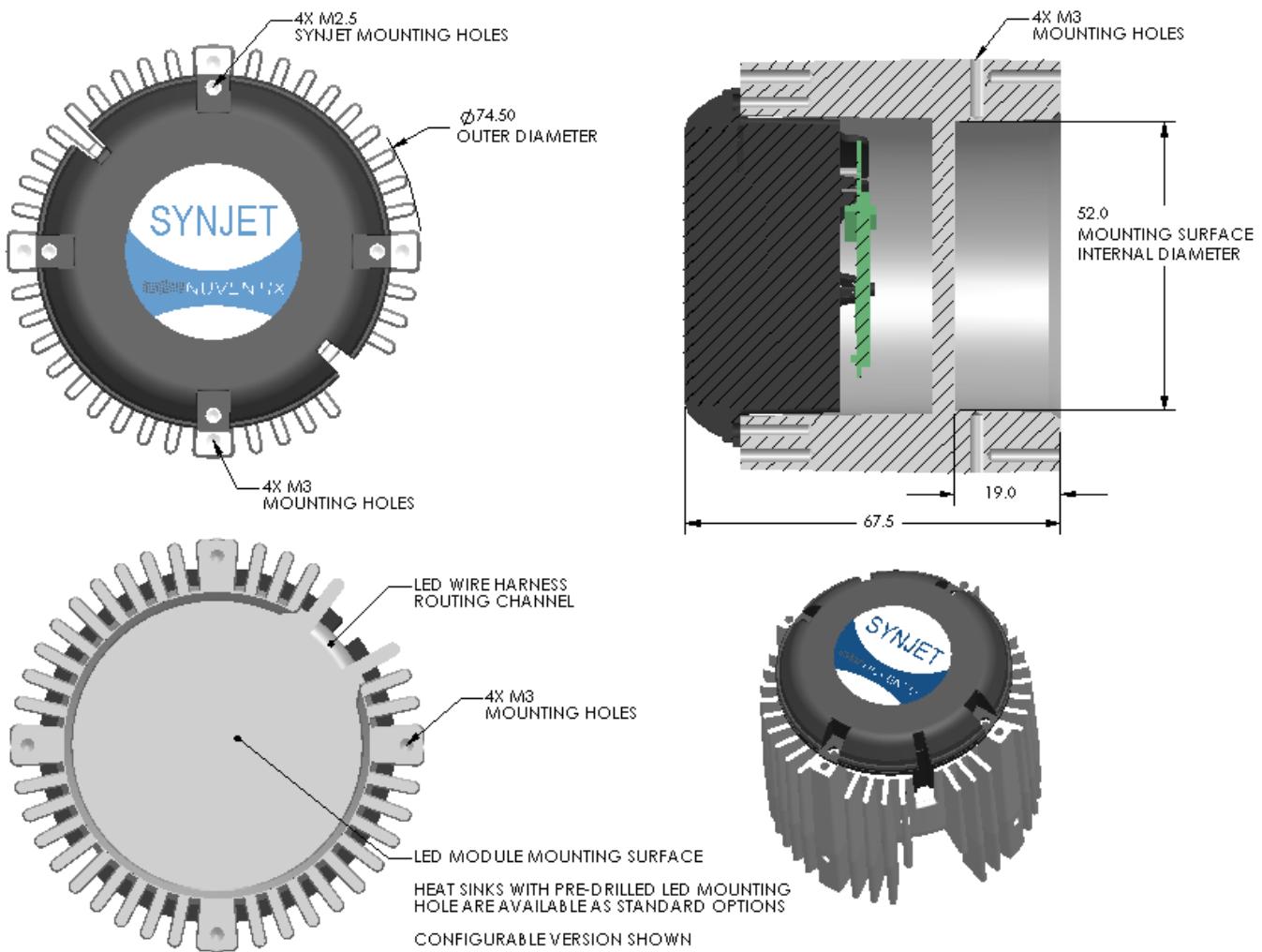
³ Thermal resistance values are given as reference only and are measured in free air without airflow obstructions. Thermal resistance is measured from the bottom middle of the heat sink to ambient air measured at the inlet to the SynJet, with a heat source at least 19cm² using reference heat sink. Actual thermal performance may vary by application and final product design should be tested to assure proper thermal performance.

⁴ Thermal Design Power is based on a 30°C temperature rise of heat sink mounting surface above ambient temperature around cooler.

⁵ Sound Pressure Level is measured at 1 meter distance per ISO 7779.

⁶ The SynJet has a time varying current. The current waveform is sinusoidal and the average current (Iavg) is used to calculate the average power consumption (Pavg) at nominal input voltage (VDC). See the Electrical section in the Product Design Guide for a detailed explanation.

Mechanical drawing



All dimensions in mm.

Part Numbers

| SynJet® Spotlight Cooler 21W | Document revision: 0.9 |
|------------------------------|---|
| SSSLS-CM005-006 | SynJet SLC Cooler, Level Select, 5V, 600mm wires |
| SSSLS-CM012-013 | SynJet SLC Cooler, Level Select, 12V, 600mm wires |
| HSSLS-CALCL-004 | Heatsink, 21 W, LEDON Fulmen |
| HSSLS-CALCL-005 | Heatsink, 21 W, Philips SLM |
| HSSLS-CALCL-006 | Heatsink, 21 W, Configurable |
| HSSLS-CALCL-007 | Heatsink, 21 W, Xicato XSM |
| HSSLS-CALCL-009 | Heatsink, 21 W, Osram Prevaled |
| HSSLS-CALCL-010 | Heatsink, 21 W, BridgeLux ES |
| HSSLS-CALCL-011 | Heatsink, 21 W, LEDEngin LZ-040 |

Nuventix reserves the right to make changes to the products or information contained herein without notice. No liability is assumed as a result of their use or applications. For additional information, please contact Nuventix directly.