

# SynJet® PAR25 LED Cooler with HS

## Features/Benefits

- Covers all your PAR25 LED track light cooling needs
  - Ultra high powered applications like Spot Lights
  - Low acoustic applications like Desk Lamps
  - Universal applications like General Lighting
- Meets PAR25 form factor
- 100K hours L10 life at 50C



## Overview

SynJet® fanless air moving technology provides the most reliable active cooling solution available today. The SP25S family of SynJet® cooling modules has been developed by Nuventix Inc. for cooling a PAR25 LED lamp. It can be integrated with a wide array of electronic and optical solutions in the PAR25 form factor.

## Specifications

Parameter	Θs-a <sup>1,2,3</sup>	SPL (dBA) <sup>4</sup>	TDP <sup>5</sup> (W)	Power W (5V) <sup>6</sup>
SynJet, PAR25, - Variable Control Cooler <sup>7</sup>	1.33-2.0	18-28	20-30	1.0-1.5
SynJet, PAR25, - High Performance 30W Cooler	1.33	28	30	1.5
SynJet, PAR25, - Standard 25W Cooler	1.60	22	25	1.5
SynJet, PAR25, - Silent 20W Cooler	2.00	18	20	1.0

Parameter – All Modules	Min	Typ	Max	Units	Conditions
Voltage	4.75		5.25	VDC	150mV max ripple p-p
Power Lead					Power (Red wire) Ground (Black wire)
Operating Temperature	0		50	°C	
Storage Temperature	-40		75	°C	
Storage Altitude			15K	m	Above Sea Level
Relative Humidity (operating)	5		95	%	Non-condensing
Weight			170	gr	<103gr for the heat sink and <67gr for the cooler
Agency Certifications					RoHS, CE, UL
Reliability <sup>8</sup>			100K	hrs	L10 @ 50°C

<sup>1</sup> In fully open air or well vented fixtures from 25C to 50C in full on condition. Thermal data is given as a reference only. Actual performance may vary by application.

<sup>2</sup> Thermal resistance is measured from the bottom middle of the heat sink, with a heat source at least 10cm<sup>2</sup>, to ambient air measured at the inlet to the SynJet.

<sup>3</sup> SynJet Cooler is suitable for enclosed fixtures but thermal performance will vary depending on the enclosure

<sup>4</sup> Per ISO 7779

<sup>5</sup> Total Design Power based on a 40°C delta in temperature

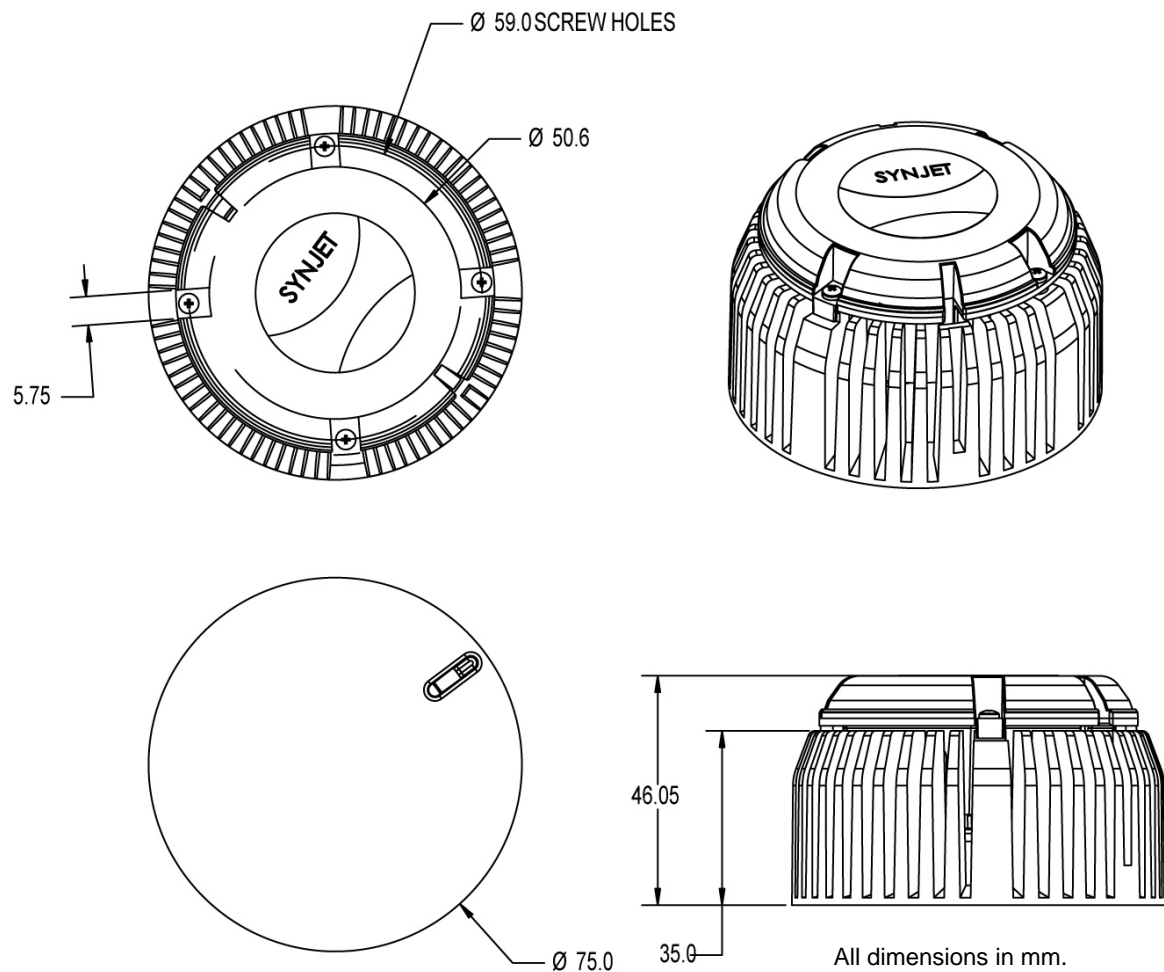
<sup>6</sup> See Nuventix Design Guide for detailed power requirements

<sup>7</sup> Variable Control Cooler is controlled by two additional wires and can be toggled between the three standard settings and the off state

<sup>8</sup> L10 is the life for which 90% of a group of modules will meet or exceed the specification

PRODUCT

Mechanical drawing



Part Numbers

PAR25 Cooler	Document revision: 1.6
SP25S-CM005-004	SynJet, PAR25, 5v - Variable Control Cooler
SP25S-CM005-003	SynJet, PAR25, 5v - High Performance 30W Cooler
SP25S-CM005-002	SynJet, PAR25, 5v - Standard 25W Cooler
SP25S-CM005-001	SynJet, PAR25, 5v - Silent 20W Cooler
HP25S-CALBL-001	PAR25 heatsink

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