

SynJet® PAR20 LED Cooler with HS

Features/Benefits

- Covers all your PAR20 LED track light cooling needs
 - Ultra high powered applications like Spot Lights
 - Low acoustic applications like Desk Lamps
 - Universal applications like General Lighting
- Meets PAR20 form factor
- 100K hours L10 life at 50C



Overview

SynJet® fanless air moving technology provides the most reliable active cooling solution available today. The SP20S family of SynJet® cooling modules has been developed by Nuventix Inc. for cooling a PAR20 LED lamp. It can be integrated with a wide array of electronic and optical solutions in the PAR20 form factor.

Specifications

Parameter	Os-a ¹²³	SPL (dBA) ⁴	TDP ⁵ (W)	Power W (5V) ⁶
SynJet, PAR-20, Variable Control Cooler ⁷	1.67-2.5	18-28	16-24	1.0-1.5
SynJet, PAR-20, High Performance 24W Cooler	1.67	28	24	1.5
SynJet, PAR-20, Standard 20W Cooler	2.0	22	20	1.5
SynJet, PAR-20, Silent 16W Cooler	2.5	18	16	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			134	gr	<67gr for the heat sink and <67gr for the cooler
Agency Certifications					RoHS, CE, UL
Reliability ⁸			100K	hrs	L10 @ 50°C

¹ 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.

² Thermal resistance is measured from the bottom middle of the heat sink, with a heat source at least 10cm², to ambient air measured at the inlet to the SynJet.

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

⁴ Per ISO 7779

⁵ Total Design Power based on a 40°C delta in temperature

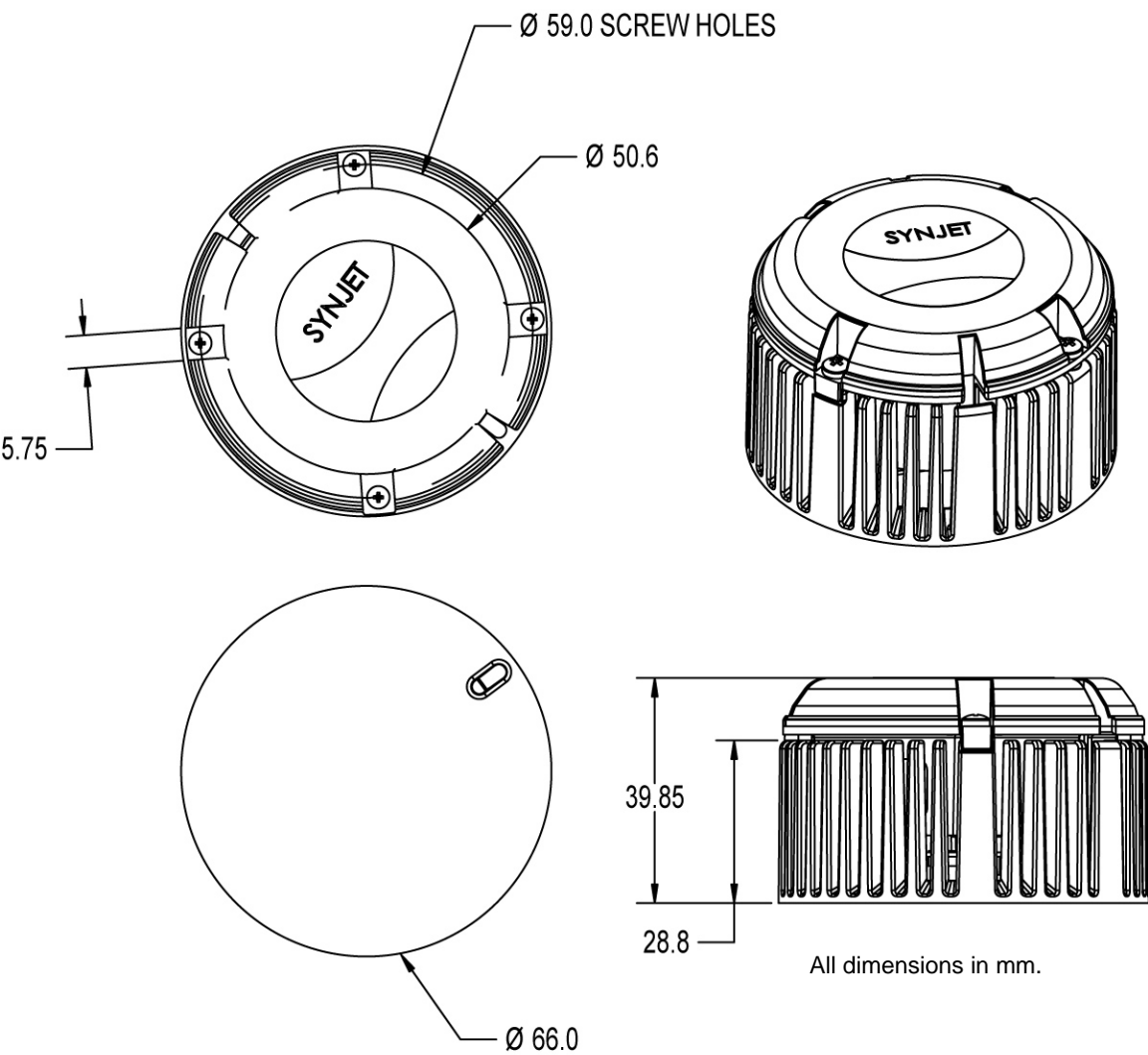
⁶ See Nuventix Design Guide for detailed power requirements

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

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

PRODUCT

Mechanical drawing



Part Numbers

PAR20Cooler	Document revision: 1.6
SP20S-CM005-004	SynJet, PAR-20, 5v – Variable Control Cooler
SP20S-CM005-003	SynJet, PAR-20, 5v - High Performance 24W Cooler
SP20S-CM005-002	SynJet, PAR-20, 5v - Standard 20W Cooler
SP20S-CM005-001	SynJet, PAR-20, 5v - Silent 16W Cooler
HP20S-CALBL-001	PAR20 heatsink

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