SynJet® Spotlight Cooler 34W

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 87mm diameter for small designs
- Cools up to 34W
- 100K Hours Lifetime
- Energy Efficient

Specifications[1]

Thermal & Acoustic

SynJet Setting[2]	Θs-a[3]	TDP[4] (W)	SPL (dBA)[5]
High Performance	0.88	34	28
Mid Performance	1.0	30	25
Standard Performance	1.14	26	22
PWM at 100% duty cycle	0.88	34	28

Electrical

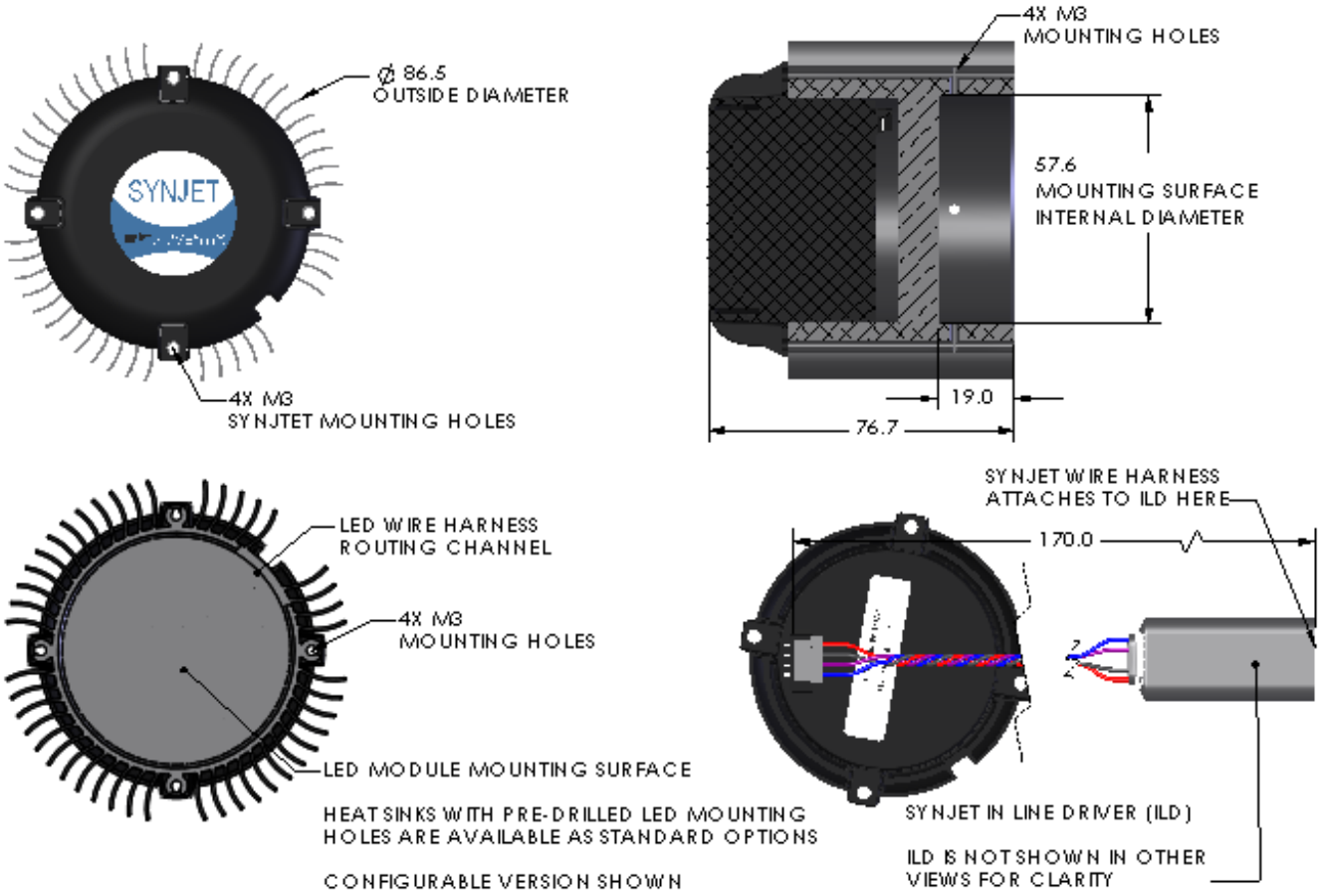
SynJet Setting[2]	Voltage (VDC) +/- 10%	Current (mA)[6]			Pavg (mW)	Voltage (VDC) +/- 10%	Current (mA)[6]			Pavg (mW)
		Imin	Iavg	Ipeak			Imin	Iavg	Ipeak	
High Performance	5	20	126	252	630	12	10	70	140	840
Mid Performance			87	174	435			48	97	580
Standard Performance			72	144	360			40	80	480
PWM at 100% duty cycle			126	252	630			70	140	840

Environmental

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		??	g	SynJet only
Reliability		100K	hrs	L10 @ 60°C
Regulatory Compliance				CE, UL, FCC Part 15 Class B, RoHS

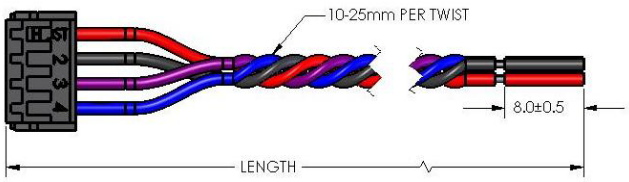
[1] All specifications are typical at 25ºC unless otherwise stated.
[2] The Digital Select model should be used for discrete performance settings. Follow the instructions in the Product Design Guide for adjusting settings.
[3] Thermal resistance values are given as reference only and are measured in 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 19cm^2 using 31W Sport Cooler 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 30ºC 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



All dimensions are nominal and in mm unless otherwise stated. See product drawings for more detail.

SynJet Wire Harness



Connector Pinout

Pin	Symbol	Description
1	+VDC	Input voltage; 5V or 12V depending on model
2	GND	Ground
3	CTRL2	Performance input for Digital Select model Status Signal for PWM model
4	CTRL1	Performance input for Digital Select model PWM Input for PWM model

Part Numbers

Part Number	Description	Notes
SSLCS-CM005-001-D	SynJet, ZFlow 75, PWM, 5V, ILD	Use with PWM input to control performance setting
SSLCS-CM005-002-D	SynJet, ZFlow 75, Level Select, 5V, ILD	Configurable to discrete performance settings
SSLCS-CM012-001-D	SynJet, ZFlow 75, PWM, 12V, ILD	Use with PWM input to control performance setting
SSLCS-CM012-002-D	SynJet, ZFlow 75, Level Select, 12V, ILD	Configurable to discrete performance settings
HSLCS-CALBL-001	Heatsink, 34 W, Spotlight Cooler, Philips SLM, Black	Has hole pattern for Philips SLM
HSLCS-CALBL-002	Heatsink, 34 W, Spotlight Cooler, Osram PrevaLED, Black	Has hole pattern for Osram PrevaLED
HSLCS-CALBL-006	Heatsink, 34 W, Spotlight Cooler, Xicato XSM, Black	Has hole pattern for Xicato XSM
HSLCS-CALBL-008	Heatsink, 34 W, Spotlight Cooler, Bridgelux ES, Black	Has hole pattern for Bridgelux ES
HSLCS-CALBL-003	Heatsink, 34 W, Spotlight Cooler, Configurable	LED mounting surface is free of holes
WALLS-C4150-001	SynJet Wire Harness, 4 wire, 150 mm length	
WALLS-C4600-001	SynJet Wire Harness, 4 wire, 600 mm length	

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