


Specifications

LED Module M2H-H Series



Features

- Lumileds Luxeon TX LED;
- IP68 rated modules;
- 5VA rated for fire resistance;
- Lumen flux: up to 6100lm per module;
- Low maintenance cost with lifetime >60,000hrs (L70);
- Multiple lighting distribution options available;
- Optical lens transmittance up to 98%;
- Multiple modules can easily be connected in series via connector offering;
- 10 years warranty;
- Approvals:  

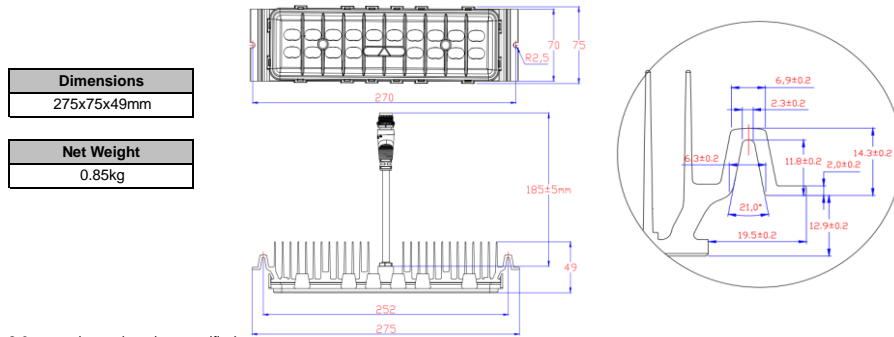
Applications

- Flood Lighting
- High/Low bay Lighting

Contents

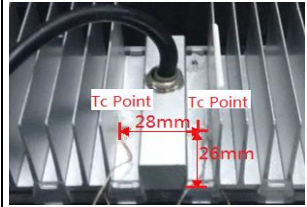
Mechanical Drawings.....	3
Performance.....	3
Beam Type.....	4
Circuit Diagram.....	5
Drivers Recommendation.....	5
Waterproof Connectors Recommendation.....	6
Packaging.....	6
Module Part Number.....	7

Mechanical Drawings



Tolerance: ±2.0mm, unless otherwise specified.

Performance

Series	Lighting Source	Drive Current	T _c [7]	Nominal CCT	Minimum CRI [3]	Minimum Flux [1][2][3]	Typical Flux [1][2][3]	Typical Efficacy [1][2][3]	Color Consistency	Location of T _c Point
M2H-H	18 x Lumileds Luxeon TX LEDs	700mA	46.7°C	3000K	70	3990lm	4200lm	117lm/W	5 SDCM	On the heat sink of the module, 26mm from the edge and 28mm apart (14mm on either side of the centerline of the module). See the picture below: 
				4000K		4275lm	4500lm	125lm/W		
				5000K		4275lm	4500lm	125lm/W		
				3000K	80	3392lm	3570lm	99lm/W		
				4000K		3634lm	3825lm	107lm/W		
				5000K		3634lm	3825lm	107lm/W		
	3000K	1050mA	57.7°C	70	5415lm	5700lm	102lm/W			
	4000K				5795lm	6100lm	109lm/W			
	5000K				5795lm	6100lm	109lm/W			
	3000K			80	4603lm	4845lm	87lm/W			
	4000K				4926lm	5185lm	93lm/W			
	5000K				4926lm	5185lm	93lm/W			

Notes: [1] Flux and efficacy values above are based on steady-state measurements done in 24°C ambient temperature where there is a tolerance of ±3°C on T_c.

[2] Flux and efficacy data above are based on lens transmittance 98%.

[3] Lumileds LED maintains a tolerance of ±6.5% on luminous flux and ±2 on CRI.

Item	Minimum	Typical	Maximum
Forward Voltage (@ 700mA, T _c =46.7°C) [4][5]	49.5V	51.3V	54V
Power Consumption (@ 700mA, T _c =46.7°C) [4]	34.65W	35.91W	37.8W

Notes: [4] Voltage and power values are based on calculated LED values @ 100% driver efficiency.

Use for reference only since temperature and LED driver current have influence on forward voltage and on power consumption.

[5] Lumileds LED maintains a tolerance of ±0.06V on forward voltage measurements.

Current	L70	Maximum T _c [6]
700mA	>60,000 hrs	98.5°C
1050mA	>60,000 hrs	95.3°C

Current	@700mA	@1050mA	@Maximum 1100mA [7]
Maximum T _c [6]	98.5°C	95.3°C	94.9°C

Notes: [6] Theoretically calculated T_c value based on maximum T_s 105°C as per warranty.

[7] Maximum actual drive current. Drive current, including current ripple, should not exceed 1200mA.

IP Rating	Storage Temperature	Relative Humidity
IP68	-40~+50°C	10%~90%

Beam Type

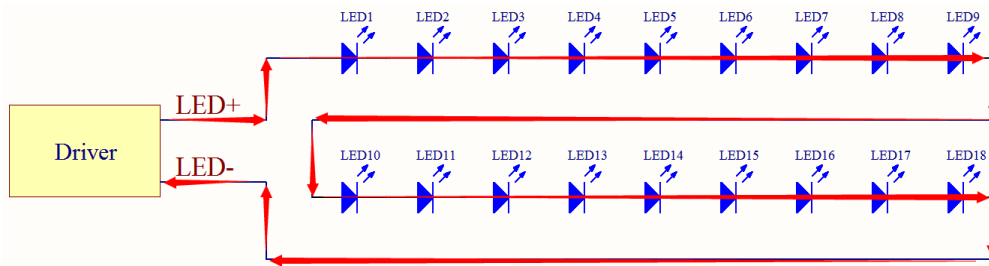
For Flood/ High/ Low Bay Light Applications

Lens Code	M2H-H-12D	M2H-H-25D	M2H-H-40D			
Central Symmetry	NEMA Type	2Hx2V	NEMA Type	3Hx3V	NEMA Type	5Hx5V
	Beam Angle (FWHM)	12°	Beam Angle (FWHM)	25°	Beam Angle (FWHM)	40°
	Lens Transmittance	93%	Lens Transmittance	93%	Lens Transmittance	93%
	M2H-H-60D		M2H-H-90D			
	NEMA Type	6Hx6V	NEMA Type	7Hx7V		
	Beam Angle (FWHM)	60°	Beam Angle (FWHM)	90°		
	Lens Transmittance	93%	Lens Transmittance	93%		
Lens Code	M2A-H-34D					
Axial Symmetry	NEMA Type	7Hx5V				
	Beam Angle (FWHM)	110°x40°				
	Lens Transmittance	98%				

Notes: — C0/180 — C90/270

Installation guide: the arrow on the lens (parallel with C0/180) should be parallel to passage in application.

Circuit Diagram












Drivers Recommendation

Driver Description	Inventronics	Philips
Driver for 1 module @700mA	EUC-052S070DT ⁵	XI075C070V105CNY2 ⁵
Driver for 2 modules @700mA	EUG-096S105DT ⁴	XI100C110V143BSY1 ⁴⁵
Driver for 3 modules @700mA	EUG-150S105DT ⁴	LEDINTA0700C210DO ⁵
Driver for 4 modules @700mA	EUG-200S105DT ⁴	XI300C150V300BSR1 ⁴⁵
Driver for 5 modules @700mA	EUG-240S105DT ⁴	XI300C150V300BSR1 ⁴⁵
Driver for 1 module @1050mA	EUG-075S105DT ⁴	XI100C110V143BSY1 ⁴⁵
Driver for 2 modules @1050mA	EUG-150S105DT ⁴	XI150C105V140CNF1 ⁵
Driver for 3 modules @1050mA	EUG-200S105DT ⁴	XI300C150V300BSR1 ⁴⁵
Driver for 4 modules @1050mA	EUD-320S150DT ⁴	XI300C150V300BSR1 ⁴⁵
Driver for 5 modules @1050mA	EUD-320S150DT ⁴	XI300C150V300BSR1 ⁴⁵

Notes:

1. Alternative board + driver configurations can be evaluated upon request.
2. Please refer to the driver datasheet for detailed specifications.
3. All drivers feature 0-10V dimming.
4. Driver output current can be adjusted.
5. For outdoor lighting application, this driver should work with a line-earth 10KV SPD.

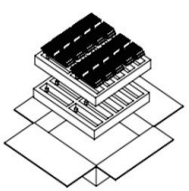
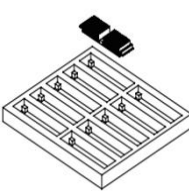
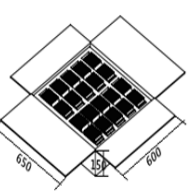
Waterproof Connectors Recommendation

Picture	Model	Description	Length
	C2A-01M500	IP68 female connector for 1 module	Single female terminal 49.5mm + flying leads 550±50mm
	C2A-S2M500	IP68 female connector for 2 modules in series	Dual female terminal 78.1mm + flying leads 550±50mm
	C2A-S3M500	IP68 female connector for 3 modules in series	Triple female terminal 113.1mm + flying leads 550±50mm
	C2A-S4M500	IP68 female connector for 4 modules in series	Quad female terminal 148.1mm + flying leads 550±50mm
	C2A-01F500	IP68 male connector	Single male terminal 55.7mm + flying leads 550±50mm
	C2A-1FS1M	IP68 male and female connector for extension	Single female terminal 49.5mm + cable 200±20mm + single male terminal 55.7mm
	C2A-S2M200F	IP68 male and female connector for 2 modules in series	Dual female terminal 78.1mm + cable 200±20mm + single male terminal 55.7mm
	C2A-S3M200F	IP68 male and female connector for 3 modules in series	Triple female terminal 113.1mm + cable 200±20mm + single male terminal 55.7mm
	C2A-S4M200F	IP68 male and female connector for 4 modules in series	Dual female terminal 148.1mm + cable 200±20mm + single male terminal 55.7mm

Notes: The connectors are allowed to be used in combination for 5-module connection and extending purpose.

Cable Specifications	Withstanding DC Voltage	Withstanding Current	Certification	Working Temperature
2x18 AWG	420Vdc	10A	UL	-40~+80°C

Module Packaging

10 pcs/tray	2 trays/ carton	20 pcs/carton
		

Notes:

1. Carton dimensions: 650x600x150mm
2. Gross weight: 19.8kg (Empty package: 2.8kg)

Module Part Number

Example:

M2H H 12D LTX 730
 1 2 3 4 5

1. Module Series	2. Voltage	3. Beam Type	4. LED Type	5. CRI/CCT
M2H - High Power LED's	H = 49.5-54V	12D = 12DEG 25D = 25DEG 40D = 40DEG 60D = 60DEG 90D = 90DEG 34D = 110x40DEG	LTX = Lumileds Luxeon TX	730 = 70CRI/3000CCT 740 = 70CRI/4000CCT 750 = 70CRI/5000CCT 757 = 70CRI/5700CCT 830 = 80CRI/3000CCT 840 = 80CRI/4000CCT 850 = 80CRI/5000CCT