

# ***M20A.S&T***

## ***Modular Floodlight***



**- 1500W -**

Ongoing



**CB**



**UK  
CA**

**CE**

**RoHS**



**5**  
YEARS  
WARRANTY

# SPECIFICATION

## Product: M20 Modular Floodlight

Part No.: M20A1500S, M20A1500T



S series

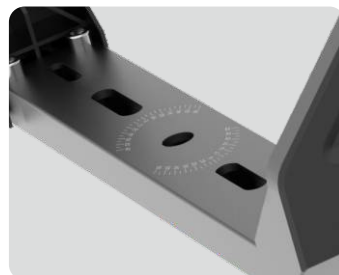
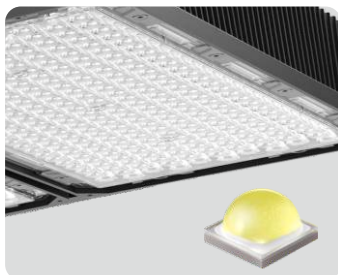


T series

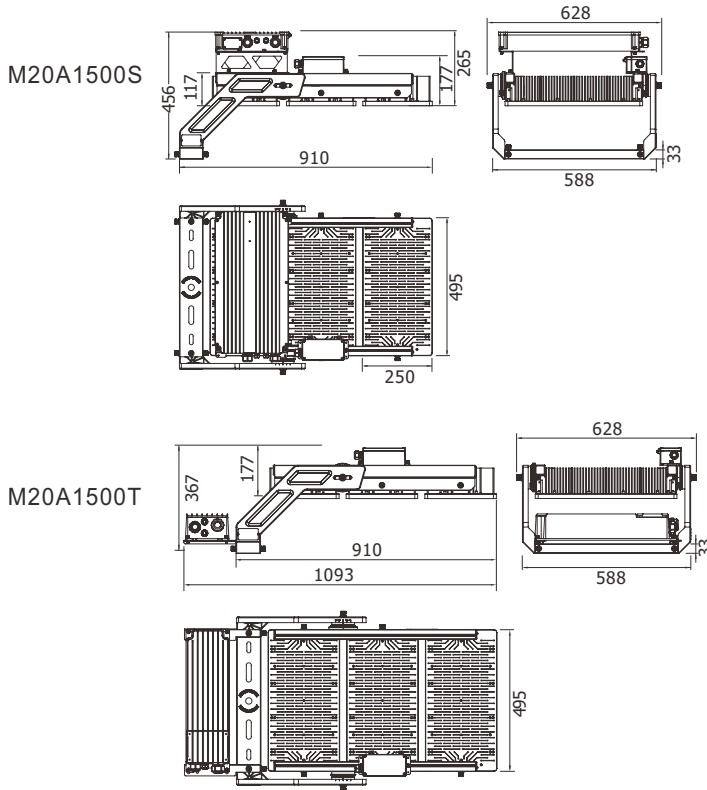
## 1. Main features

- Cold forging pure aluminum with high thermal conductivity.
- Die-casting aluminum bracket for less weight.
- 3535 ceramic LED with low thermal resistance to enable very high reliability and long lifetime.
- 140-150lm/W based on sharp spill light control.
- Professional optical design, lens can be interchanged.
- Beam angle: 12°/30°/60° symmetric; 40°x15°/60°x15°/100°x17°/100°x60°/130°x25° asy.
- 20KV surge protection.
- Driver box flexible for remote (only one 3-core cable).
- Inrush current limiter integrated.
- Thermal control unit integrated to protect LED module.
- G2.0 driver control board, minimize driver failure rate.
- Dali-2, 0/10V, DMX dimmable available.
- Angle fine tuning attainable precision 0.5°.

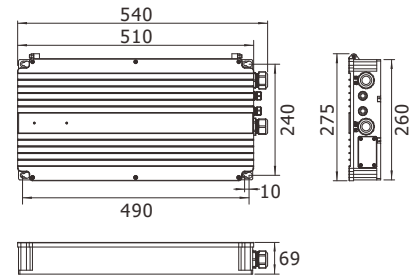
## 2. Product details



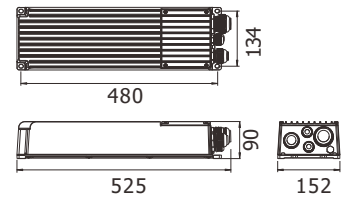
### 3. Dimensions (Unit: mm)



### Control Gear ( Driver Box )



Matrix-340-1500W  
Mono-340-1500W-S/H



NES-1K8T210BC

### 4. Technical data

Model No.	M20A1500S	M20A1500T
Light Source	SMD 3535	SMD 3535
Control Gear	Matrix / Mono-S / Mono-H	NES-1K8T210BC
Input Voltage Range *	100-305Vac / 249-528Vac 50/60Hz	198-457Vac 50/60Hz
LED Power (W)	1351-1449	1351-1449
System Power(W)	1437-1536	1437-1536
Luminous Flux(lm)	212,200-231,000	212,200-231,000
Power Factor	>0.95	>0.95
CCT (K)	3000/4000/5700	3000/4000/5700
CRI	>70 / >80	>70 / >80
Beam Angle	12°/30°/60° symmetric; 40°x15°/60°x15° /100°x17°/100°x60°/130°x25° asymmetric	12°/30°/60° symmetric; 40°x15°/60°x15° /100°x17°/100°x60°/130°x25° asymmetric
THD (230VAC)	<20%	<20%
Surge Protection	20KV	10KV
Dimmable	0/10V; Dali-2; DMX	Dali-2 & DMX
Housing Color	Black / Gray	Black / Gray
IP Class	IP66	IP66
Working Temperature (°C)	-20 to +50	-20 to +50
Working Humidity(RH%)	10-90	10-90
Power Cable	1m H07RN-F 3x1.5	1m H07RN-F 3x1.5
Outer Carton(CM)	85.5*73*36(1pcs/CTN)	---

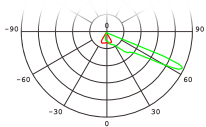
\* Certified voltage range: Matrix / Mono-S(100-240Vac); Mono-H(277-480); NES-1K8T210BC(220-415VacC)

## 5. Net weight

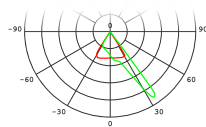
Model No.	Luminaire	Control Gear				
		Matrix(0/10V)	Matrix(Dali)	Mono-S(0/10V; DMX)	Mono-H(0/10V; DMX)	NES-1K8T210BC
M20A1500S	23.8 Kg	7.9 Kg	9.3 Kg	7.2 Kg	7.1 Kg	
M20A1500T	23.8 Kg					7.0 Kg

## 6. Luminous intensity distribution diagram

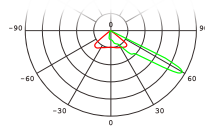
For the IES file, please contact us by E-mail.



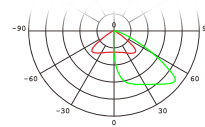
40°x15° Asy



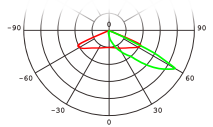
60°x15° Asy



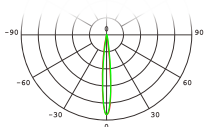
100°x17° Asy



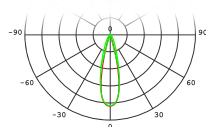
100°x60° Asy



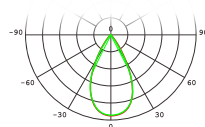
130°x25° Asy



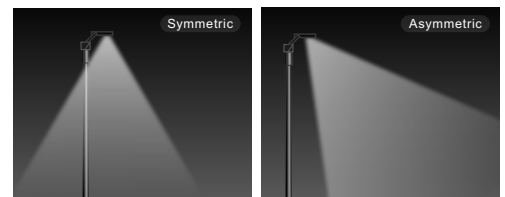
12°



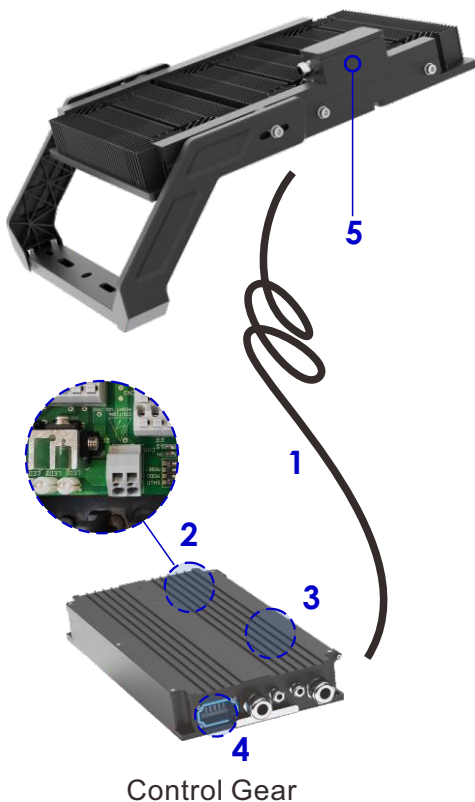
30°



60°



## 7. Innovations



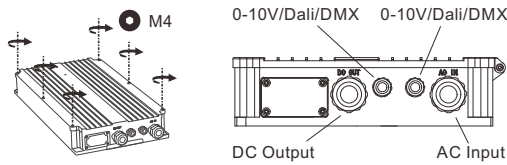
Control Gear

- 1 Only one 3-core cable go up to the luminaire. (M20A.S Series)**  
**Remote distance for 1500 Watt :**  
 3-core 2.5 mm<sup>2</sup>: 200m maximum  
 3-core 2 mm<sup>2</sup>: 100m maximum  
 3-core 1.5 mm<sup>2</sup>: 80m maximum
- 2 Super high reliability:**  
 Multiple isolated drivers inside with the second generation driver control board.
- 3 20KV surge protection**
- 4** Transparent PC window for monitors/Bluetooth signals
- 5 Thermal Control Unit**  
 To protect LEDs from extreme condition

## 8. Wiring of separated control gear solution

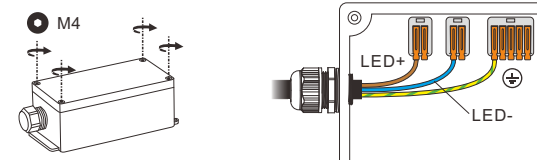


Cable gland of Matrix & Mono

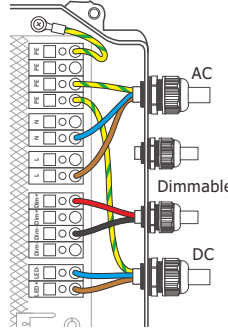


Connection	Cable Gland	Toque (N*m)	Cable Diameter (mm)	Cable Section (mm <sup>2</sup> )
AC Input	M20	5.5	8-10/10-12	1.5/2.5
DC Output	M20	5.5	8-10/10-12	1.5/2.5
Dimmable	M16	2.5	7-10	1.0-1.5

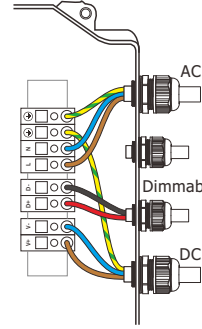
(1) Connection of luminaire



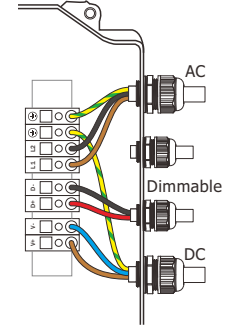
(2) Matrix (0-10V / Dali)



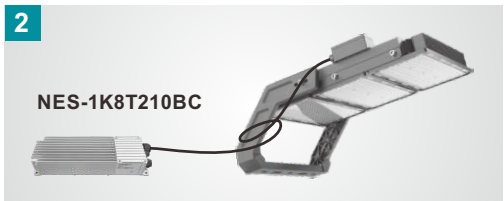
(3) Mono-S (0-10V / Dali)



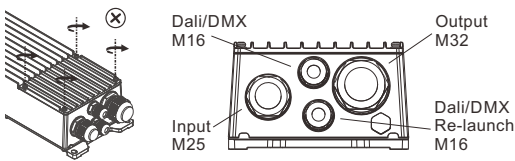
(4) Mono-H (0-10V / Dali)



**Note:** According to the actual needs, the number of connectors will increase or decrease. Different dimming function cannot be used at the same time.

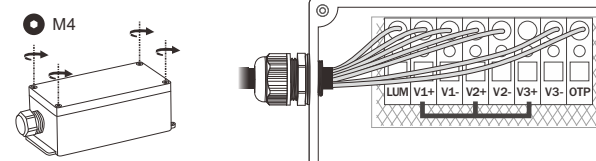


Cable Gland of NES-1K8T210BC

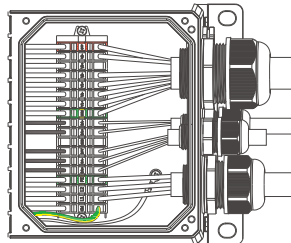
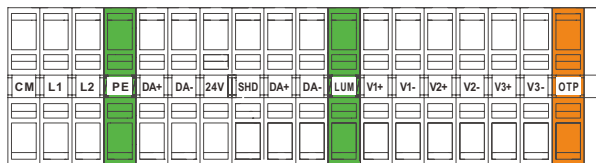


Connection	Cable Gland	Toque (N*m)	Cable Diameter (mm)	Cable Section (mm <sup>2</sup> )
AC Input	M25	5.5	13-18	1.5-2.5
DC Output	M32	7.5	15-21	1.5-2.5
Dali/DMX	M16	2.5	5-10	0.75-2.5
Dali/DMX Re-launch	M16	2.5	5-10	0.75-2.5

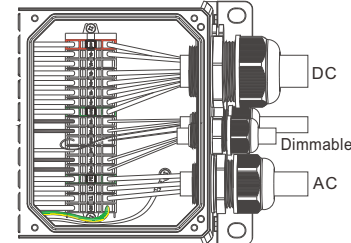
(1) Connection of luminaire



(2) Connection of NES-1K8T210BC



A typical configuration when using DALI

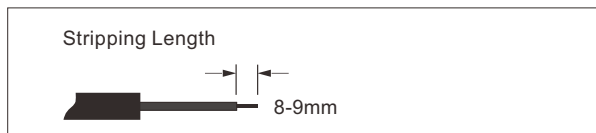


A typical configuration when using DMX-RDM

**Note:** DALI function and DMX function cannot be used at the same time.

### Label Description

Label	Description	Terminal	Function
CM	Surge protection connection	LUM	Protection Earth for LED Module
L1/L	AC input L1/Live	V1+/LED+	LED1+ Connection
L2/N	AC input L2/Null	V1-/LED-	LED1- Connection
PE	Protection Earth	V2+	LED2+ Connection
DA+/Dim+	Reused, DALI/DMX input+	V2-	LED2- Connection
DA-/Dim-	Reused, DALI/DMX input-	V3+	LED3+ Connection
24V	24V auxiliary source	V3-	LED3- Connection
SHD	DMX SHIELD	V+	LED+ Connection
DA+	DALI/DMX reused Re-launch output+	OTP	Thermal protection input
DA-	DALI/DMX reused Re-launch output-		

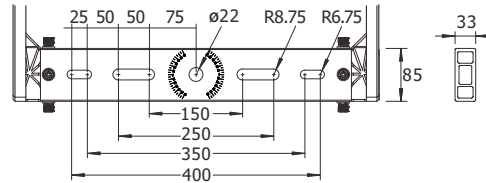


## 9. Installation

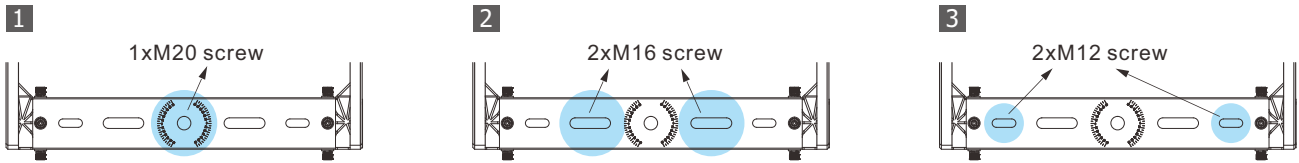


- For details, please refer to Installation Instruction.
- Installation must be performed by qualified person.
- Disconnect before installation.
- Installation tools are not provided.

### Mounting bracket



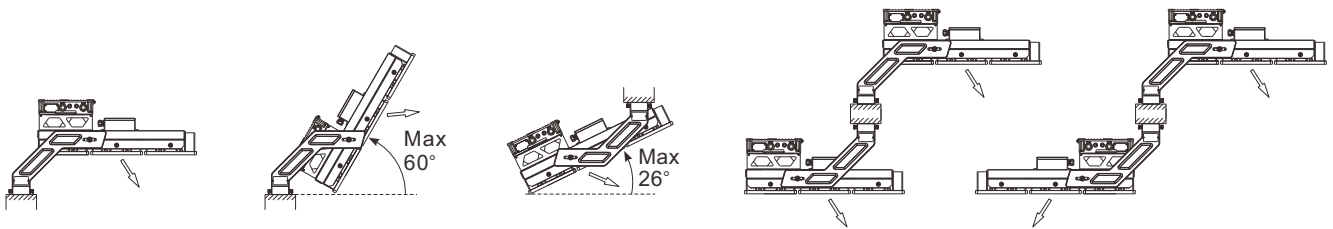
## Selection of mounting holes



## Position allowed



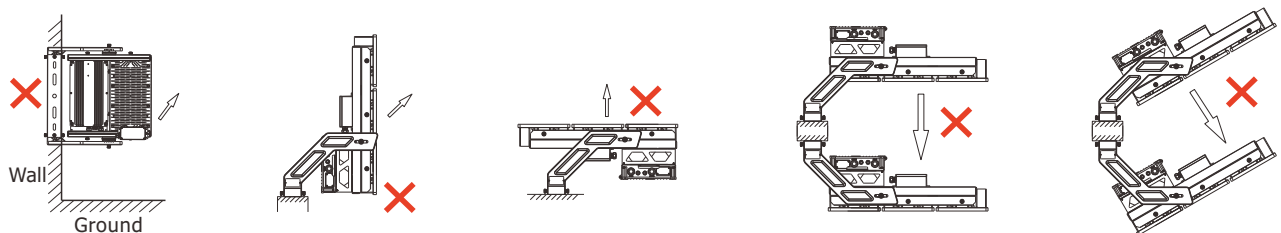
This Modular floodlight can be installed on pole, wall, ceiling or on a horizontal surface.



## Position not allowed



**Note:** Considering the heat dissipation, load bearing and dust accumulation, some installation methods are not allowed.



## 10. Effective Projected Area (EPA=SCx)

Unit: m<sup>2</sup>



Power	Tilt angle	0°	10°	20°	30°	45°	60°
1500W		0.08	0.09	0.11	0.14	0.17	0.19

## 11. Application

Suitable for football stadiums, tennis courts, stadiums and other large sports venues, high mast, harbor, airport, warehouse, workshop, gas stations, toll stations, parking area, etc..



## Revision History

Version	Change Date	Description of change
1.3	14-Aug-23	The installation drawing has been modified.
1.4	23-Aug-23	According to the IES test data, the power and luminous flux are modified.
1.5	28-Aug-23	M20A1500S added the option of Mono-S/H.
1.6	4-Sept-23	According to the IES test data, the power and luminous flux are modified; The dimension of Matrix was modified; Added driver separation solution and EPA information.
2.0	13-Sept-23	The information of separated control gear solution was modified.
2.1	19-Sept-23	Added the text: 3535 ceramic LED, and added the picture of the LED
3.0	1-Nov-23	Updated the dimension of products; Deleted the beam angle: 90°x15°; Added the beam angle: 130°x25°
3.1	14-Nov-23	The FCC certification icon was removed, and the light distribution diagram of 130°x25° was modified.
3.2	21-Nov-23	The wiring diagram of Mono has been modified