

VANQUISH

User Manual

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1. GETTING STARTED

Please make sure to carefully read and fully understand the instructions in this manual before operating this device. It includes essential information on safety and usage.

This device should only be operated by trained personnel and is not intended for private use.

2. CONTENT OF DELIVERY

1 x tarm VANQUISH luminaire

1 x Power cable

2 x Omega brackets

1 x Heavy-duty wooden flight case

3. INFORMATION ON WATERPROOF LUMINAIRE

The tarm VANQUISH luminaire is an IP66 rated, waterproof device. It is protected against dust and water ingress. Thus any maintenance or service work that incorporates the opening of the device requires additional procedures to ensure the waterproofness after the maintenance or service work. Please see the maintenance procedures further down this manual.

Even though this device can endure ingress of dust (6) and powerful water jets from any direction (6) (-> IP66), it is not submersible and not suitable for underwater operation.

Maritime/Coastal Environment Installations:

Coastal environments, located near the sea, expose electronics to atomized saltwater and high humidity, posing a significant corrosive risk. Maritime settings include areas within a 5-mile radius of these coastal environments.

Due to these challenging conditions, maritime installations require additional precautions and more frequent servicing. It's important to note that IP ratings are initially based on freshwater conditions, whereas maritime environments are generally more corrosive to IP fixtures, both internally and externally. During periods of high humidity and low temperatures, periodic operation may be necessary to expel accumulated moisture through the vent valve. Recommendations may vary depending on specific installation circumstances.

4. SAFETY INSTRUCTIONS - GENERAL SAFETY

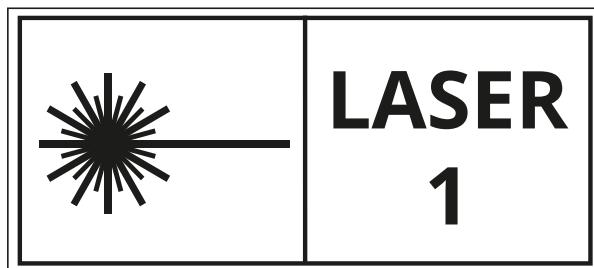
This fixture is an advanced piece of electronic equipment. To ensure optimal performance, it's crucial to adhere to all instructions and guidelines provided in this manual.

The tarm AG cannot be held liable for any injuries or damages resulting from misuse or neglect of the information provided. Installation should only be carried out by qualified or certified personnel, using exclusively the **original rigging parts** (omega brackets) included

with the fixture. Any alterations to the fixture or its mounting hardware will void the manufacturer's warranty and **elevate the risk of damage or personal injury**.

All local requirements for safe rigging and mounting of lighting fixtures must be observed.

This device contains a **laser-based light source** that is considered a substitution of a conventional light source according to IEC / EN 60825-1:2022 chapter 4.4. Therefore this luminaire is classified as **Laser Class 1**, and assigned to Risk Group 3 according to IEC / EN 62471:2006, modified.



- A **Class 1 Laser is considered safe** according to IEC / EN 60825-1:2022 chapter C.2.1.
- Risk Group 3 (high risk): This luminaire is classified as a Risk Group 3 product according to IEC / EN 62471:2006, modified. That means, that the high intensity of the output can potentially cause various hazards to people and objects. Certain minimum distances must be respected
 - to people: 34 m for wide focus use, 120 m for close focus use. Much closer distances are possible with use of prisms and other effects. **Never exceed the MPE!**
 - to objects: minimum 1m to heat insensitive / non flammable and non-reflective materials, minimum 20m to easily flammable materials or reflective materials.

Caution: If the luminaire is operated with the housing of the device opened, laser radiation of Laser Class 4 can be emitted. **Only qualified and trained personnel to open and service the device! Never open the device while in use!**

- **There are no user serviceable parts inside this luminaire.**
Do not attempt any repairs yourself. Damages resulting from modification to this luminaire void the manufacturer's warranty. Disregarding safety instructions in this manual also void the manufacturer's warranty and are not subject to any warranty claims and / or repairs.
- **Do not plug device to a dimmer!**
- **Keep flammable materials away** from the fixture.
- **Never obstruct the ventilation / cooling system** of the device - it may cause damage or destruction and can cause additional hazards. Obstructing the ventilation of the device voids any warranty.
- **Never look directly into the light source** (see minimum distance to people specified above). Risk of retina injuries, temporary or even permanent blindness.

- Sensitive persons may suffer **epileptic shock!**
- All unused connectors and caps must be sealed with appropriate dielectric grease to prevent corrosion of connectors.



This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

5. SAFETY LIMIT SETTING

The tarm VANQUISH is equipped with a option that allows for limiting the PAN and TILT movement. This setting can be used to avoid the beam hitting certain areas. It is accessible through the menu at the device : OPTIONS -> PAN/TILT SETTING -> SAFETY LIMITS

6. SAFETY INSTRUCTIONS - HANDLING THE FIXTURE

- Handle the **power cord** by the **plug end only**; never pull the plug out by tugging on the wire.
- Do not touch the fixture housing during operation. Turn off the power and allow approximately 15 minutes for the **fixture to cool down** before servicing.
- Avoid shaking the fixture and **do not use brute force** during installation or operation.
- **Do not operate the fixture** if the **power cord is frayed, crimped, damaged**, or if any of the connectors are **compromised** and cannot be securely and easily inserted into the fixture.
- **Never force a power cord connector into the fixture.** If the power cord or any of its connectors are damaged, replace them immediately with a new cord of similar power rating.
- **Do not block any air ventilation slots.** Ensure that all fan and air inlets remain clean and unobstructed.
- Maintain approximately 25 cm of space between the fixture and other devices or walls for proper cooling, and a minimum of 50 cm around fans and air vents.
- When installing the fixture in a suspended environment, always use mounting hardware no less than M10x25mm, and **secure the fixture with an appropriately rated safety cable**.

- Consistent operational breaks will help ensure the fixture functions properly for many years.
- Use only the **original packaging and materials** when transporting the fixture for service.
- **Never exceed the specified minimum and maximum operating temperatures** specified in the technical data. This may lead to damage or total break of the device and can furthermore lead to secondary hazards (fire, short circuit, etc.). Operating the device beyond the specified operating temperature range voids the manufacturer's warranty.
- **Do not install a fuse that has a higher rating** than the one originally installed in the product.
- **Do not bypass fuses.**
- **Do not stick filters, masks or other materials** onto optical components.
- **Do not point the front of the fixture towards the sun** or other strong light sources. The front lens focuses and concentrates light just like a magnifying glass. Strong light can cause internal damage to the fixture, melting components or starting an internal fire within seconds.
- **Avoid pointing other high powered beam lights directly at the fixture.**
- **Do not focus a light beam from one lighting fixture directly towards another.**
- **For outdoor applications during daylight, make sure that the front face of any fixture is shielded** or points away from the sun, even when not in use.
- Do not expose the product to heat (from other lighting fixtures for example).

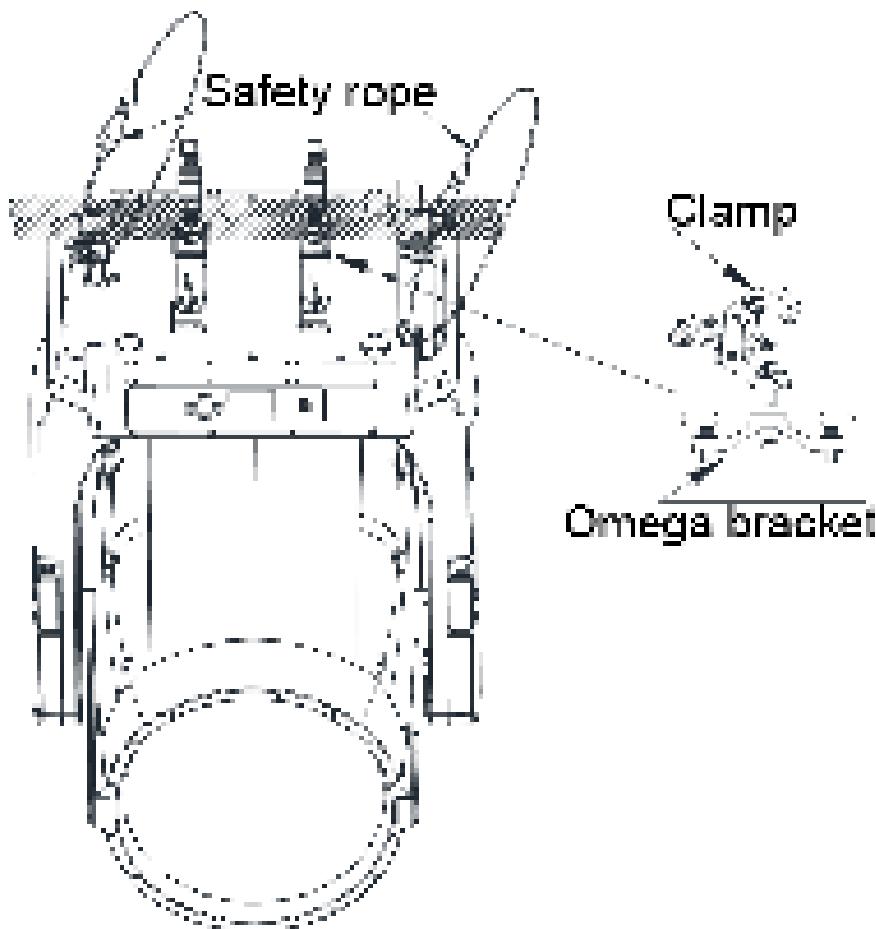
7. TRANSPORTATION

- Only transport the device **using the flightcase included** in delivery or comparable.
- Only transport it with the **locks for Pan and Tilt movement applied**.
- Only transport the device with the **base to the bottom as per the flightcase**.
- **Avoid upside-down transportation** to prevent shock damage.
- **Avoid tipping the flightcase** containing the device during transport and handling.

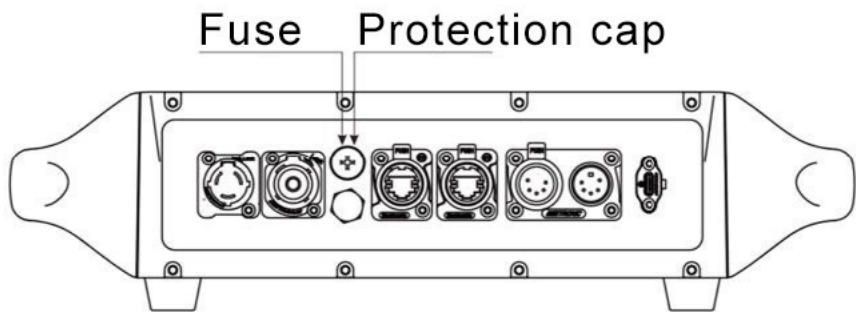
8. INSTALLATION

8.1. Rigging

- Always install a **safety rope** in case of overhead use of the device. Follow local requirements regarding durability, length and design of the rope / steel cable.
- Secure the fixture with a safety rope through the rear safety eye and truss as shown.
- Ensure that the structure (truss) to which you are attaching the fixture is secure and is dimensioned to handle dynamic fixtures.



8.2. Replacing the fuse



1. Remove the protection cap with a screwdriver.
2. Remove the old fuse from the cap
3. Install the new fuse.
4. Put the protection cap with the fuse back in place and make sure it is properly locked in place and tight. Do not overtighten.

8.3. Power connection

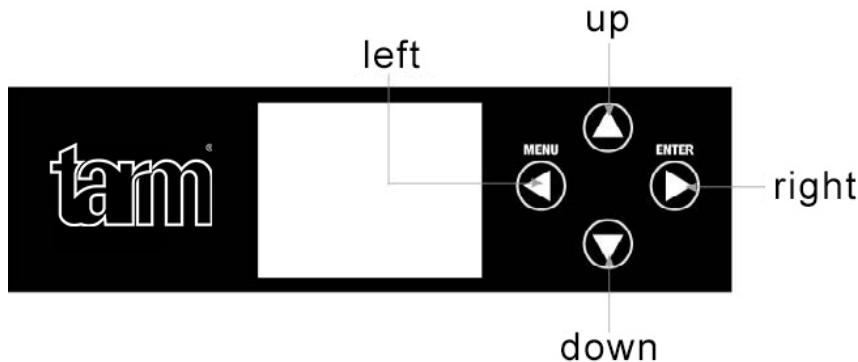
This product has an auto-ranging power supply that can work with an input voltage range of 100V - 240V AC, 50/60 Hz.

Never connect this product to a dimmer!

You may use the PowerCon TRU1 outlet for power connection of further tarm VANQUISH fixtures. Depending on mains voltage, the maximum quantity of connected fixtures shall not exceed 4 devices (for 230V AC operating) and max 2 devices (for 100V AC operating). If other devices are connected to the PowerCon TRU1 outlet, make sure to not exceed the total power consumption rating of the main fuse, but maximum 16A. Make sure to take a higher startup current draw of some fixtures into consideration.

9. SETTINGS

9.1. Display Control



5. **LEFT** (Menu) - Use to access the menu or to return a previous menu option
6. **RIGHT** (Enter) - Use to select and store the current selection or confirm the current function value or option
7. **UP** - Navigates upwards through the menu list and increases the numeric value in certain submenu options
8. **DOWN** - Navigates downwards through the menu list and decreases the numeric value in certain submenu options

Note:

The tarm VANQUISH Moving Head is equipped with an internal battery that allows menu operation (e.g. setting the DMX address) without mains power.

During battery operation, the display may show the message "LASER: error". This message is system-related and indicates a missing temperature signal, as the laser source is deactivated in this mode.

During normal operation, the display shows the temperature of the laser source.

If the display is locked, unlock as follows:

1. Press and hold Enter for about 5 seconds, until the display shows „password“.
2. Standard password:
up - down - up - down
then press right to unlock

9.2. Menu Layout

ADDRESS	001 – 512(Default 001)			DMX address setting	
PERSON	BASIC			Select desired channel mode	
	STANDARD (Default)				
	EXTEND				
RUNMODE	DMX512 (Default)			Select Control Signal Default: DMX512 CUSTOM 1-2 can be Set via EDIT MENU	
	ARTNET				
	ARTNET TO DMX				
	sACN				
	AUTO				
	CUSTOM1				
	CUSTOM2				
OPTION	PAN/TILT SETTING	PAN INVERT	NORMAL (Default)	PAN direction	
			INVERT		
		TILT INVERT	NORMAL (Default)	TILT direction	
			INVERT		
		PT ENCODER	OFF	PAN movement degree selection	
			ON(Default)		
		SAFETY LIMIT	PAN(-)	Rotation angle limit	
			-270 ~ -1		
			PAN(+)		
			1 ~ 270		
	BLACKOUT		TILT (-)	135 ~ -1	
			TILT (+)		
			1 ~ 135		
	OFF (Default)		Select OFF blackout without delay		
	ON		Select ON Blackout delay 3s		
	DIMMER SETTING	COLOR MIXING MODE	CMY	Channel Mode Color Selection	
			RGB(Default)		
		DIMMER SPEED	HALOGEN	Dimming speed LED (fast) to Halogen (slow) ;	
			OFF(Default)		
		DIMMER CURVE	LINEAR	Set the Dimmer curve	
			SQUARE LAW (Default)		
			INV. SQUARE LAW		
			S-CURVE		
		PWM	1200Hz (Default)	Set the PWM frequency	
			2400Hz		
			4000Hz		
			6000Hz		
			25000Hz		
	DISPLAY SETTING	DISPLAY LOCK	OFF	Lock display (passcode is <UP>, <DOWN>,<UP>, <DOWN>, <ENTER>)	
			ON (Default)		
		DISPLAY TIME	On	Display backlight always on	
			30 s (Default)		
			1 min		
			2 min		
	SUN PROTECTION	OFF(Default)			
		ON			

PERFORM	STUDIO	Fan mode low speed			
	POWER	Fast rotation of fan, full power			
	LIVE (Default)	Automatic fan, balanced power			
DMX ERROR	SAVE (Default)	Hold if loss of DMX signal			
	BLACK	Blackout if loss of DMX signal			
	SUN PROTECTION	Sun protection if loss of DMX signal			
LOAD PARA	NO				
	YES	Upload data			
Color Cali	OFF	Full power mode			
	User Calibration	RED 0-255	Manual color balance calibration		
		GREEN 0-255			
		BLUE 0-255			
Factory Calibration			Factory calibration mode		
SETTING	RECOVERY	****	Restore default factory settings.		
	RESET LIMITS	****	Reset XY limit		
	CLEAN EDIT1	****	Clean customer self-editing scene 1		
	CLEAN EDIT2	****	Clean customer self-editing scene 2		
	WDMX HIDE	NO (Default)	Hide wireless mode WDMX reset and signal hide when the default is wired mode only		
		YES			
NETWORK	NET SWITCH	2.xxx.xxx.xxx (Default)	Net switch off IP mode		
		10.xxx.xxx.xxx	Net switch on IP mode		
	UNIVERS	0-255	Packet group Settings		
	IP MODE	DEFUALT IP(Default)	Default IP		
		CUSTOM IP	Custom IP		
	CUSTOM IP	XX.XX.XX.XX	Customer IP setting		
WDMX RESET	NO (Default)				
	YES		Reset the W-DMX receiver		
SIGNAL	ONLY XLRDMX (Default)		ONLY XLR is wire only		
	XLRDMX FIRST		XLR FIRST is wire first		
	ONLY WDMX		ONLY WDMX is wireless only		
	WDMX FIRST		WDMX FIRS is wireless first		
	WDMX TO XLRDMX		WDMX TO DMX is wireless to wired		
EDIT	EDIT 1-2	STEP 1-30	PAN	0-255	Edit the custom programs 1-30 Select play 【EDIT 1】 in RUNMOEDE CUSTOM 1; Select play 【EDIT 2】 in RUNMOEDE CUSTOM 2
			TILT	0-255	
			PT SPEED	0-255	
			RED	0-255	
			GREEN	0-255	
			BLUE	0-255	
			CTO	0-255	
			COLOR	0-255	

		ROTA.GOBO	0-255	
		GOBO.ROTA	0-255	
		FIXED GOBO	0-255	
		P/F 1 INDEX	0-255	
		PRISM 1 ROTA	0-255	
		P/F 2 INDEX	0-255	
		PRISM 2 ROTA	0-255	
		ZOOM	0-255	
		FOCUS	0-255	
		DIMMER	0-255	
		STROBE	0-255	
		TIME	0-255	
	USE	YES/NO		Select YES for each step to set
MANUAL	Auto Test			Auto Test channel
	CHANNEL	PAN	0-255	Manual control channel
		TILT	0-255	
		PT SPEED	0-255	
		RED	0-255	
		GREEN	0-255	
		BLUE	0-255	
		CTO	0-255	
		COLOR	0-255	
		ROTA.GOBO	0-255	
		GOBO.ROTA	0-255	
		FIXED GOBO	0-255	
		P/F 1 INDEX	0-255	
		PRISM 1 ROTA	0-255	
		P/F 2 INDEX	0-255	
		PRISM 2 ROTA	0-255	
		ZOOM	0-255	
		FOCUS	0-255	
		DIMMER	0-255	
		STROBE	0-255	
INFO	DEBUG HIDE	YES		Factory testing mode. All stepper motors are not controlled by signal, Reboot system to exit this mode.
		NO		
	RESET	ALL RESET		Select Yes/No to carry out all reset
		XY RESET		Select Yes/No to carry out P/T reset
		COLOR GOBO SYS		Color reset
		ZOOM FOCUS RESET		Focus/Zoom reset
	VERSION			Software versions

TEMPERATURE			Laser temperature
FAN SPEED			Fan speed detection
Fixture Hours			Hours of fixture use
Laser Use Hours			Laser use time
Network			Network address
RDM	UID	0x0536xxxxxxxx	Check fixture's ID
	LABEL		Check fixture's LABEL
SYSTEM ERROR	MEMORY IC		Memory IC
	ANGLESENSOR		Angle Sensor
	LASER TEMPERATURE 1		Laser Temperature 1
	LASER TEMPERATURE 2		Laser Temperature 2
	PAN SENSOR		Pan Sensor
	PAN ENCODER		Pan Encoder
	PAN DRIVEIC		Pan Driveic
	TILT SENSOR		Tilt Sensor
	TILT ENCODER		Tilt Encoder
	TILT DRIVEIC		Tilt Driveic
	GOBO RESET		Gobo Reset
	RGOBO RESET		Rotate Gobo Reset
	FIXED GOBO		Fixed Reset
	P/F 1 INDEX RESET		P/F 1 Index Reset
	PRISM 1 ROTA RESET		Prism 1 Rotation Reset
	P/F 2 INDEX RESET		P/F 2 Index Reset
	PRISM 2 ROTA RESET		Prism 2 Rotation Reset
SERVICE	ZOOM RESET		Zoom Reset
	FOCUS RESET		Focus Reset
	NETWORK IC		Network IC
	PAN	±127	Pan position fine adjustment
	TILT	±127	Tilt position fine adjustment
	ROTA. GOBO	±127	Rotate Gobo position fine adjustment
	GOBO.ROTA	±127	Self-rotation position fine adjustment
	FIXED GOBO	±127	Fixed Gobo position fine adjustment
	P/F 1 INDEX	±127	P/F 1 position fine adjustment
	PRISM 1 ROTA	±127	Prism 1 position fine adjustment
	P/F 2 INDEX	±127	P/F 2 position fine adjustment
	PRISM 2 ROTA	±127	Prism 2 position fine adjustment
ZOOM		±127	Zoom position fine adjustment
FOCUS		±127	Focus position fine adjustment
UPDATE SOFTWARE			Update software

10. DMX-CHART - CONTROLS

This is the DMX chart, highlighting the different DMX modes (corresponding to the PERSON settings in the menu):

BASIC (21CH)		STANDARD (26CH)	Extend (30CH)	VALUE	Functions
1		1	1	000-255	PAN
-		2	2	000-255	PAN FINE
2		3	3	000-255	TILT
-		4	4	000-255	TILT FINE
3		5	5	000-255	PT Speed
4	6	6	6	PAN Motor continuous rotation	
				0-63	stop rotation by spinout
				64-127	stop rotation by shortcut
				128-189	Forwards Pan rotation from fast to slow
				190-193	No rotation
				194-255	Backwards Pan rotation from slow to fast
5		7	7	000-255	CYAN/RED
-		-	8	000-255	CYAN FINE/RED FINE
6		8	9	000-255	MAGENTA/GREEN
			10	000-255	MAGENTA FINE/GREEN FINE
7		9	11	000-255	YELLOW/BLUE
-		-	12	000-255	YELLOW FINE/BLUE FINE
8	10	13	13	CTO	
				0-9	NO FUNCTION
				10	1800K
				25	2200K
				40	2700K
				55	3000K
				70	3200K
				85	4000K
				100	4500K
				115	5000K
				130	5600K
				145	6000K
				160	6500K
				175	7000K
				190	8000K
9	11	14	14	COLOUR MACRO	
				0-10	No Function
				11-15	R40
				16-20	L24

			21-25	L164
			26-30	L08
			31-35	L25
			36-40	L237
			41-45	R321
			46-50	L652
			51-55	L765
			56-60	L513
			61-65	L90
			66-70	R92
			71-75	L728
			76-80	L117
			81-85	L354
			86-90	L501
			91-95	L174
			96-100	L142
			101-105	L794
			106-110	L328
			111-115	L127
			116-120	L192
			121-125	L157
			126-130	R332
			131-191	RESERVED
			192-222	COLOR WHELL1 RAINBOW EFFECT(SPEED 100%=>1)
			223-224	STOP
			225-255	COLOR WHELL1 RAINBOW EFFECT(SPEED 1=>100%)
ROTATING GOBO 12+1				
10	12	15	0-5	ROTATING WHITE
			6-10	ROTATING GOBO 1
			11-15	ROTATING GOBO 2
			16-20	ROTATING GOBO 3
			21-25	ROTATING GOBO 4
			26-30	ROTATING GOBO 5
			31-35	ROTATING GOBO 6
			36-40	ROTATING GOBO 7
			41-45	ROTATING GOBO 8
			46-50	ROTATING GOBO 9
			51-55	ROTATING GOBO 10
			56-60	ROTATING GOBO 11
			61-65	ROTATING GOBO 12
			66-70	ROTATING GOBO 1 SHAKE (SPEED 1 → 100%)
			71-75	ROTATING GOBO 2 SHAKE (SPEED 1 → 100%)
			76-80	ROTATING GOBO 3 SHAKE (SPEED 1 → 100%)
			81-85	ROTATING GOBO 4 SHAKE (SPEED 1 → 100%)

			86-90	ROTATING GOBO 5 SHAKE (SPEED 1 → 100%)
			91-95	ROTATING GOBO 6 SHAKE (SPEED 1 → 100%)
			96-100	ROTATING GOBO 7 SHAKE (SPEED 1 → 100%)
			101-105	ROTATING GOBO 8 SHAKE (SPEED 1 → 100%)
			106-110	ROTATING GOBO 9 SHAKE (SPEED 1 → 100%)
			111-115	ROTATING GOBO 10 SHAKE (SPEED 1 → 100%)
			116-120	ROTATING GOBO 11 SHAKE (SPEED 1 → 100%)
			121-125	ROTATING GOBO 12 SHAKE (SPEED 1 → 100%)
			126-127	WHITE
			128-190	ROTATING GOBO FLOWING WATER EFFECT (SPEED 100 → 1%)
			191-192	STOP WATER EFFECT
			193-255	ROTATING GOBO FLOWING WATER EFFECT (SPEED 1 → 100%)
11	13	16	GOBO ROTATING	
			0-120	ROTATING GOBO ANGLE ADJUSTMENT (0 → 360°)
			121-125	STOP
			126-165	ROTATING GOBO SHAKE (SPEED 1 → 100%)
			166-170	STOP
			171-210	ROTATING GOBO POSITIVE ROTATION (SPEED 100% → 1)
			211-215	STOP
			216-255	ROTATING GOBO REVERSE ROTATION (SPEED 1 → 100%)
-	-	17	000-255	GOBO ROTATING FINE
12	14	18	FIXED GOBO WHEEL 25+1	
			0-5	WHITE
			6	FIXED GOBO 1
			7	FIXED GOBO 2
			8	FIXED GOBO 3
			9	FIXED GOBO 4
			10	FIXED GOBO 5
			11	FIXED GOBO 6
			12	FIXED GOBO 7
			13	FIXED GOBO 8
			14	FIXED GOBO 9
			15	FIXED GOBO 10
			16	FIXED GOBO 11
			17	FIXED GOBO 12
			18	FIXED GOBO 13
			19	FIXED GOBO 14
			20	FIXED GOBO 15
			21	FIXED GOBO 16
			22	FIXED GOBO 17
			23	FIXED GOBO 18
			24	FIXED GOBO 19
			25	FIXED GOBO 20
			26	FIXED GOBO 21

			27	FIXED GOBO 22
			28	FIXED GOBO 23
			29	FIXED GOBO 24
			30	FIXED GOBO 25
			31-33	FIXED GOBO 1 SHAKE (SPEED 1 → 100%)
			34-36	FIXED GOBO 2 SHAKE (SPEED 1 → 100%)
			37-39	FIXED GOBO 3 SHAKE (SPEED 1 → 100%)
			40-42	FIXED GOBO 4 SHAKE (SPEED 1 → 100%)
			43-45	FIXED GOBO 5 SHAKE (SPEED 1 → 100%)
			46-48	FIXED GOBO 6 SHAKE (SPEED 1 → 100%)
			49-51	FIXED GOBO 7 SHAKE (SPEED 1 → 100%)
			52-54	FIXED GOBO 8 SHAKE (SPEED 1 → 100%)
			55-57	FIXED GOBO 9 SHAKE (SPEED 1 → 100%)
			58-60	FIXED GOBO 10 SHAKE (SPEED 1 → 100%)
			61-63	FIXED GOBO 11 SHAKE (SPEED 1 → 100%)
			64-66	FIXED GOBO 12 SHAKE (SPEED 1 → 100%)
			67-69	FIXED GOBO 13 SHAKE (SPEED 1 → 100%)
			70-72	FIXED GOBO 14 SHAKE (SPEED 1 → 100%)
			73-75	FIXED GOBO 15 SHAKE (SPEED 1 → 100%)
			76-78	FIXED GOBO 16 SHAKE (SPEED 1 → 100%)
			79-81	FIXED GOBO 17 SHAKE (SPEED 1 → 100%)
			82-84	FIXED GOBO 18 SHAKE (SPEED 1 → 100%)
			85-87	FIXED GOBO 19 SHAKE (SPEED 1 → 100%)
			88-90	FIXED GOBO 20 SHAKE (SPEED 1 → 100%)
			91-93	FIXED GOBO 21 SHAKE (SPEED 1 → 100%)
			94-96	FIXED GOBO 22 SHAKE (SPEED 1 → 100%)
			97-99	FIXED GOBO 23 SHAKE (SPEED 1 → 100%)
			100-102	FIXED GOBO 24 SHAKE (SPEED 1 → 100%)
			103-105	FIXED GOBO 25 SHAKE (SPEED 1 → 100%)
			106-127	WHITE
			128-190	STATIC GOBO JUMPING WATER EFFECT (SPEED 100 → 1%)
			191-192	STOP WATER EFFECT
			193-255	STATIC GOBO FLOWING WATER EFFECT (SPEED 1 → 100%)
13	15	19	P/F INDEX 1	
			0-10	WHITE
			11-50	PRISM 1
			51-100	PRISM 2
			101-150	PRISM 3
			151-200	FROST 1
			201-255	FROST 2
14	16	20	PRISM 1	
			0-10	WHITE
			11-145	PRISM INSERT AND ADJUST THE ANGLE (0 → 360°)
			146-150	STOP

			151-200	PRISM INSERT AND POSITIVE ROTATION (SPEED 100% → 1)
			201-205	STOP ROTATION
			206-255	PRISM INSERT AND REVERSE ROTATION (SPEED 1 → 100%)
P/F INDEX 2				
15	17	21	0-10	WHITE
			11-50	PRISM 4
			51-100	PRISM 5
			101-150	PRISM 6
			151-200	PRISM 7
			201-255	FROST 3
PRISM 2				
16	18	22	0-10	WHITE
			11-145	PRISM INSERT AND ADJUST THE ANGLE (0 → 360°)
			146-150	STOP
			151-200	PRISM INSERT AND POSITIVE ROTATION (SPEED 100% → 1)
			201-205	STOP ROTATION
			206-255	PRISM INSERT AND REVERSE ROTATION (SPEED 1 → 100%)
17	19	23	000-255	ZOOM
			12	Minimum angle
			128	Medium angle
			255	Maximum angle
	20	24	000-255	ZOOM FINE
18	21	25	000-255	FOCUS
			0	Minimum angle
			148	Medium angle
			255	Maximum angle
-	22	26	000-255	FOCUS FINE
19	23	27	000-255	DIMMER
	24	28	000-255	DIMMER FINE
STROBE				
20	25	29	0-9	NO FUNCTION
			10-99	STROBE (FROM SLOW TO FAST)
			100-109	NO FUNCTION
			110-179	LIGHTNING STROBE
			180-189	NO FUNCTION
			190-255	RANDOM SROBE
CONTROL CHANNEL				
21	26	30	0-10	NO FUNCTION
			11-15	PAN/TILT BLACK ACTIVATED
			16-20	PAN/TILT BLACK DEACTIVATED
			21-25	PAN INVERT
			26-30	TIILT INVERT
			31-35	PAN/TILT INVERT OFF
			36-40	PAN DEGREE 630

41-45	PAN DEGREE 540
46-50	Sun Protection On
51-55	Sun Protection Off
56-60	STAGE MODE
61-65	SKY MODE
66-100	RESERVED
101-105	STUDIO
106-110	POWER
111-115	LIVE
116-120	RESERVED
121-125	DIMMER SPEED Halogen
126-130	DIMMER SPEED LED
131-135	DIMMER CURVE LINEAR
136-140	DIMMER CURVE SQUARE LAW
141-145	DIMMER CURVE INV. SQUARE LAW
146-150	DIMMER CURVE S-CURVE
151-160	RESERVED
161-165	1200Hz
166-170	2400Hz
171-175	4000Hz
176-180	6000Hz
181-185	25000Hz
186-200	RESERVED
201-205	ALL RESET
206-210	XY RESET
211-215	GOBO PRISM SYS
216-220	FOCUS\ZOOM RESET
221-255	RESERVED

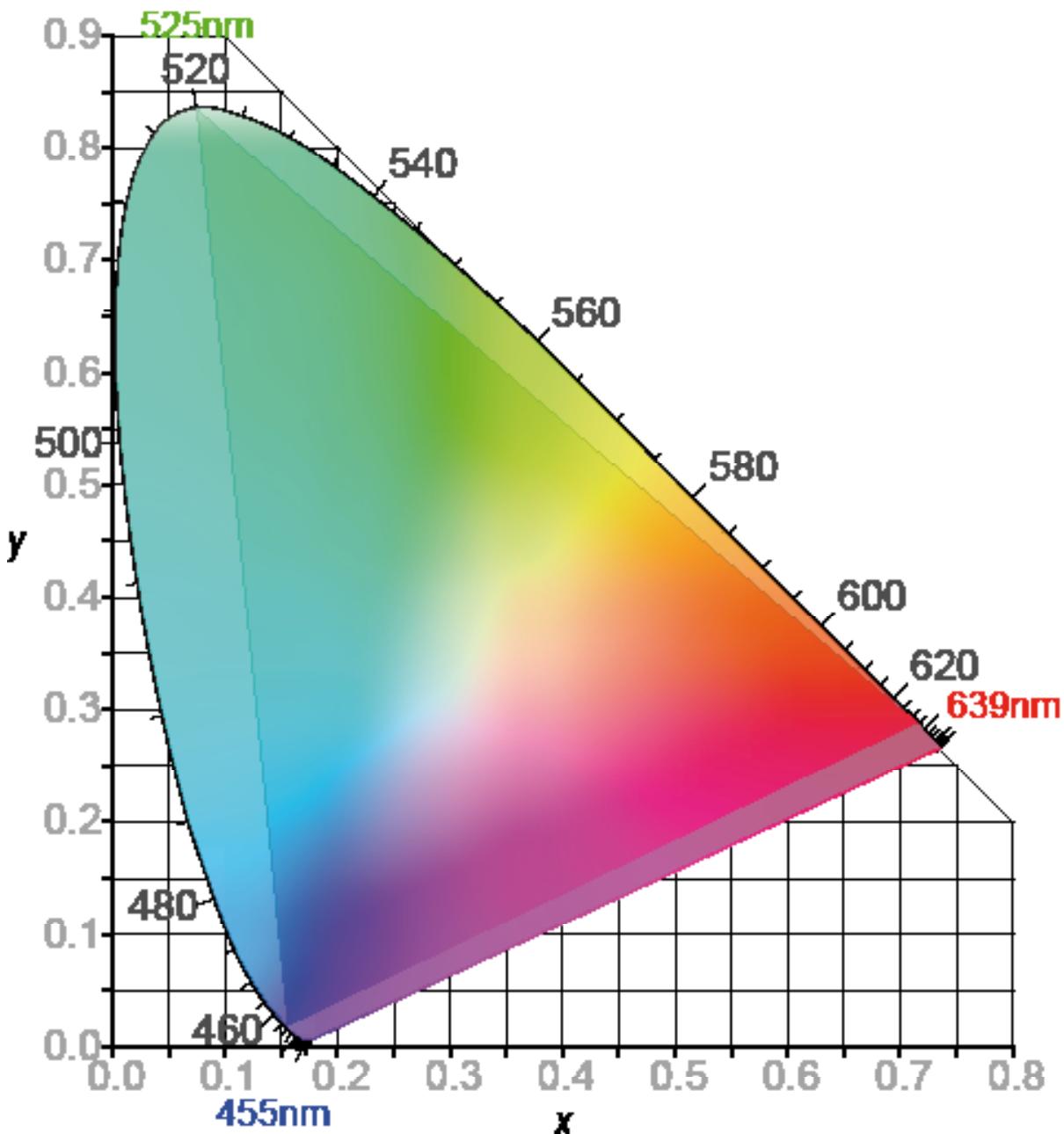
Ready-made fixture profiles / personalities can either be found in the latest libraries of your DMX controller or on www.tarm.com

11. COLORS

The tarm VANQUISH creates colors directly with its three color sources red, green and blue. Thus it does not have nor nequire color filters - it can output colors in an unfiltered, intense way. This is the reason why the tarm VANQUISH can create such intense color hues, but is also capable of coveringa wide color gamut at the same time.

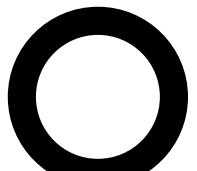
Below graphics shows the CIE color gamut with the source color wavelengths marked. The color triangle shows the different color hues the system can display.

The color mixture can either be direct RGB or through virtual CMY.

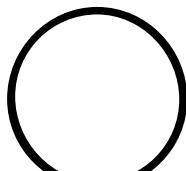


12. GOBOS

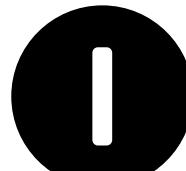
12.1. Static Gobos, with Gobo Shake



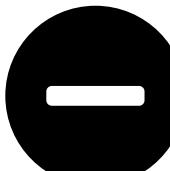
1. Pinhole Standard



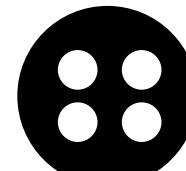
2. Open



3. Vertical Line



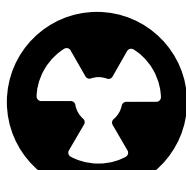
4. Horizontal Line



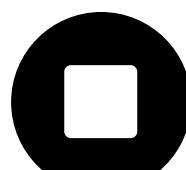
5. Dot Square



6. Circle



7. Radioactive



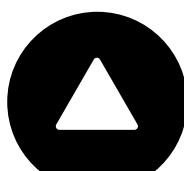
8. Square



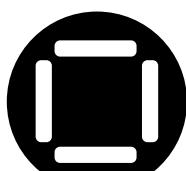
9. Wave



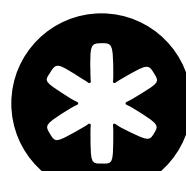
10. Three Lines



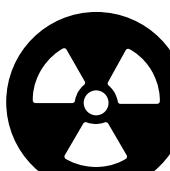
11. Triangle



12. Square Outline



13. Asterisk



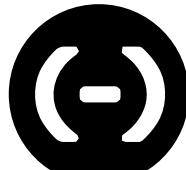
14. Radioactive 2



15. Star



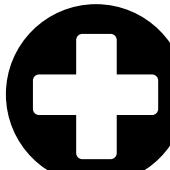
16. Triangular Lines



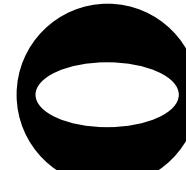
17. Drum Brake



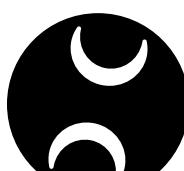
18. Three Swirl



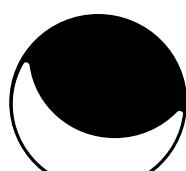
19. Cross



20. Oval



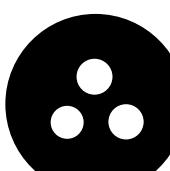
21. Double Moon



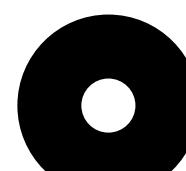
22. Half Moon



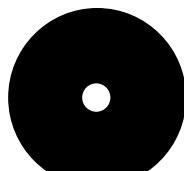
23. Five Star



24. Bubbles

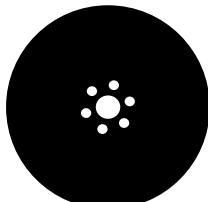


25. Pinhole Small

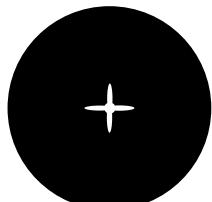


26. Pinhole Super Small

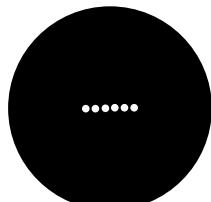
12.2. Rotating Gobos, Effects



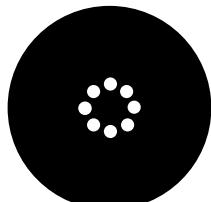
1. Sun



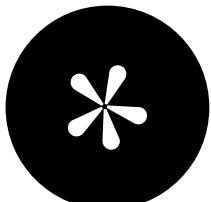
2. Rotor



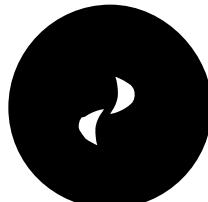
3. Six Dot Line



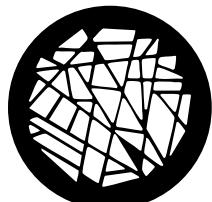
4. Dot Circle



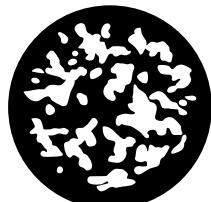
5. Flower



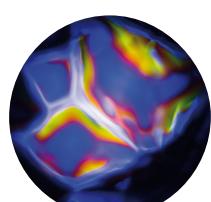
6. Scythe



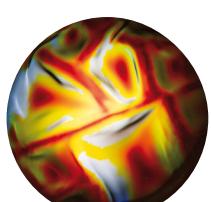
7. Mosaic



8. Organic



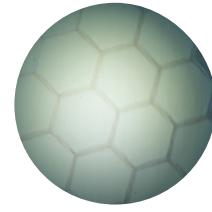
9. Ocean



10. Fire Blaze



11. Drops



12. Honeycomb

13. PRISMS AND FROST

This product is equipped with **two combined prism-frost-wheels**, which are stackable, so they can be overlayed with each other.

13.1. Prism wheel 1 - three prisms, two frost filters

Prism 1: 12 facet radial prism

Prism 2: 6 facet linear prism

Prism 3: 2 facet prism

Frost 1: Light frost

Frost 2: Heavy frost

13.2. Prism wheel 2 - four prisms, one frost filter

Prism 4: 6 facet radial prism

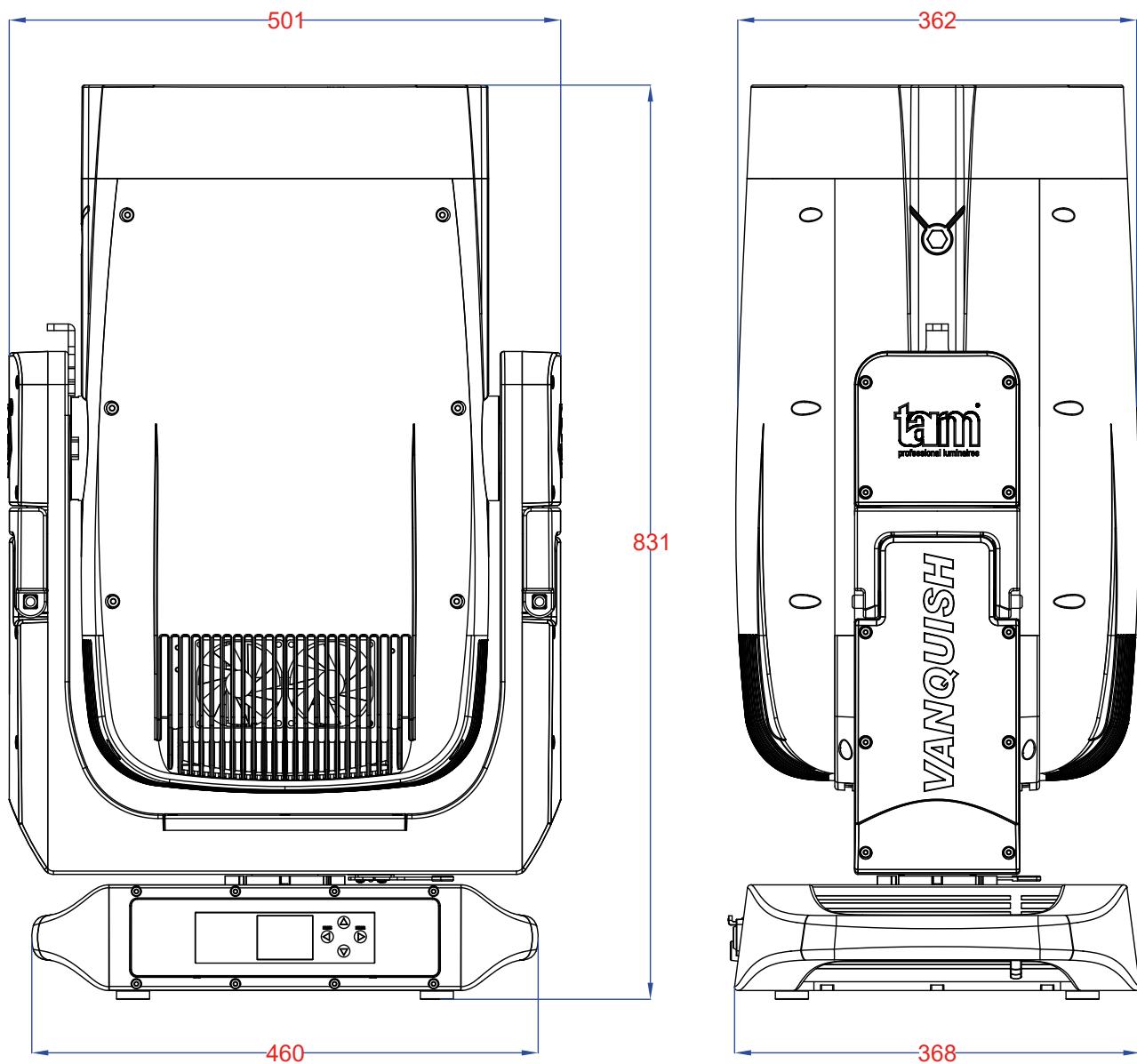
Prism 5: 24 facet double radial prism

Prism 6: 3 facet line prism

Prism 7: 6 facet line prism

Frost 3: Top hat frost

14. DIMENSIONS



Dimensions given in millimeters.

15. TECHNICAL DATASHEET

Product: **tarm VANQUISH**

Optical System

Light source	500 W RGB direct diode laser source
Lens diameter	300 mm
Angle	0.38° - 45°, up to 45° with wash and prism effects
Illuminance	2'200'000 lx @ 20m
Luminous flux	≥ 7'300 lm
Rated life (LP70)	20'000 hrs

Feature Set

Pan / Tilt	Infinite / 270° (8-16 bit)
Dimmer	0 - 100%, 24bit
Static Gobo	25 gobos + open, gobo shake
Rotating Gobo	12 rotating glass gobos + effects gobos, gobo shake
Colors	Direct color modulation at source
Color mixture	Direct RGB source modulation
Prism	7 radial and linear prisms, bi-directional rotation, adjustable speed, stackable
Frost	3 frost filters on prism wheels

Constructive Parameters

Cooling	Forced convection
Temperature range	-20°C up to +45°C
IP rating	IP66
Power supply	100 - 240 V AC 50/60Hz
Power consumption	650 W
Connectivity	5-pin DMX in and through RJ45 in and through, USB-C
Material	Magnalium and die-cast
Color	Black
Dimensions	368 x 501 x 831 mm
Weight	61,5 kg
Rigging	Two omega brackets included
Transportation	Delivered in heavy duty wooden flightcase

Control Modes

DMX512, Art-Net, RDM, sACN, W-DMX

16. GENERAL AND LEGAL INFORMATION

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