Date ——————————————————

Company ——————————————————

Project ——————————————————

CE FC RoHS compliant IP65 IK07 III DMX RDM RDM MONITORING 100 Hours Testing 5 Year Warranty

Explanation

3D Vertical Tube RGB Series provides optimum illumination in special design applications incorporating 3D visual lighting in the entertainment & stage-show sector such as; night clubs and bars. It is also used for atriums & entrances in shopping centers, hotel lobbies with high ceilings, upon requests for special 3D effects. 3D Vertical Tube RGB has a light structure and can be seen at a wide viewing angle (130 ° x2). Pixel mapping enables the creation of 3D lighting effects in the transformation of 2D objects into 3D through advanced programming technology. 3D Vertical Tube RGB provides a dynamic lighting solution with unlimited pixel options, advanced accessory alternatives and easy assembly structures.

• 3D Vertical Tube RGB provides compatible communication with other fixtures using standard DMX512 and RDM protocols without requiring any other special communication protocol or production ID. They are remotely addressable in group via RDM protocol. This feature allows for easy pixel mapping and addressing after all installations have been completed.

• 3D Vertical Tube RGB fixtures enable flexible application using very long starter and jumper cables, since they operate in a 12-48V DC voltage range.

• The operating characteristics of the fixtures are able to be changed with the DMX Personality, therefore it is possible to change the number of pixels of the products as well. The number of pixels of the fixtures can be changed to be optimized for appearance and scenario variations. For example, each LED in the 35mm range can be 1 pixel, or 2 LEDs, 4 LEDs, 8 LEDs as 1 pixel.

• Through RDM monitoring and software, it is possible to follow and determine: whether the fixtures are working properly, by displaying voltage input and output warnings, serial number, display of regional temperature values and DMX address. The user is informed by e-mail according to incoming data thus, automatic interventions are possible based on received data.

• 3D Vertical Tube RGB fixtures work through Madrix® software and hardware in coordination. Pixel mapping can be made easily by selecting fixtures in Madrix® library.

• Profiles are resistant to impacts and UV, and never turn yellow during their lifetime due to the alloyed PMMA and PC structure.

• Due to the special top-cover and mounting bracket, fixtures are installed very easily through push-lock structures.

• Available for different forms of applications in different lengths: 500mm, 1000mm, 1500mm, 2000mm.

• As a standard, 30cm, 60cm and 120cm T cables are used for power and data transmission. IP67 connectors are in push-lock structure and can be easily rotated and assembled. There is no need to use extra junction-box via input and output.

• Fixture has a clear body as standard, and it is also available in various profile options as opaque and translucent upon request.

	500mm	1000mm	1500mm	2000mm

Output

Light Source:	56pcs/m High intensity 3 in 1 Chip RGB LEDs (Double Sided)
LED Pitch:	35mm
Lumen Maintenance:	60.000 > hours L70 @ 50° C (full output)
Color Range:	16.7 Million additive RGB colors
Beam Angle:	284° Measurement Result, 360° Visibility
Luminous Flux:	492 lm/m
Luminous Intensity:	77 cd/m
Efficacy (lm/W):	31 lm/W

Photometric performance is measured in compliance with IESNA LM 79-08

Control & Programming

Pixel Pitch:	Pixel pitch is configurable via RDM, max 28pixel/m
Color Resolution:	3 x 14-bit (Gamma correction)
Addressing:	RDM (Group of Remote Addressable Systems)
Monitoring:	Voltage Monitoring,Temperature Monitoring, Status Monitoring,Power Cycle Monitoring, Lumen-Maintenance Life Monitoring
PWM Frequency:	1,600Hz flicker free dimming to 0.1%
DMX Compliance:	USITT DMX512-1990
RDM Compliance:	ANSI/ESTA E1.20-2010

Electrical

	500mm	1000mm	1500mm	2000mm
Operating Voltage:	48V DC			
Power Consumption:	8W	16W	24W	32W

15,84 W/m Maximum at full output, steady state

Maximum in Chain:	Max 20 meters or 32 pieces (varies by selected dmx personality)
Connections:	Push Lock Type 2+4 Pin Waterproof Connector

Physical

Housing:	Extruded Polycarbonate
End Cap Material:	Die-Cast Polycarbonate
Installation Brackets:	Die-Cast Polycarbonate
Hardware:	Stainless Steel
Gasket:	Silicon
Surface Finish:	Clear

Measurements:

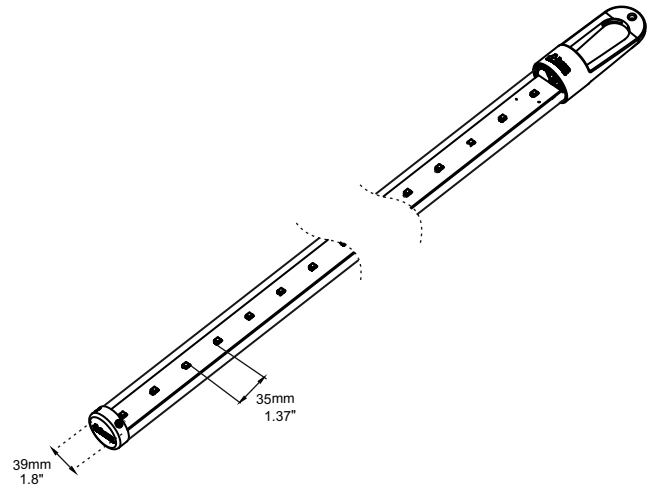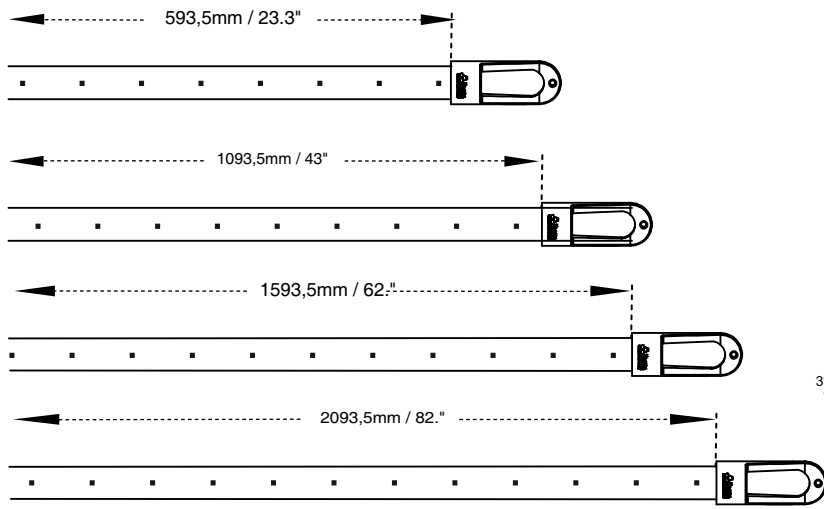|	500mm	1000mm	1500mm	2000mm
Weight:	0,444kg (0,81lb)	0,479kg (0,92lb)	0,487kg (0,94lb)	0,521kg (1,01lb)
Dimensions:	Ø39x593,5mm	Ø39x1093,5mm	Ø39x1593,5mm	Ø39x2093,5mm
(H x W x D)	(1,5x23,3 in)	(1,5x43 in)	(1,5x62 in)	(1,5x82,4 in)

Environmental

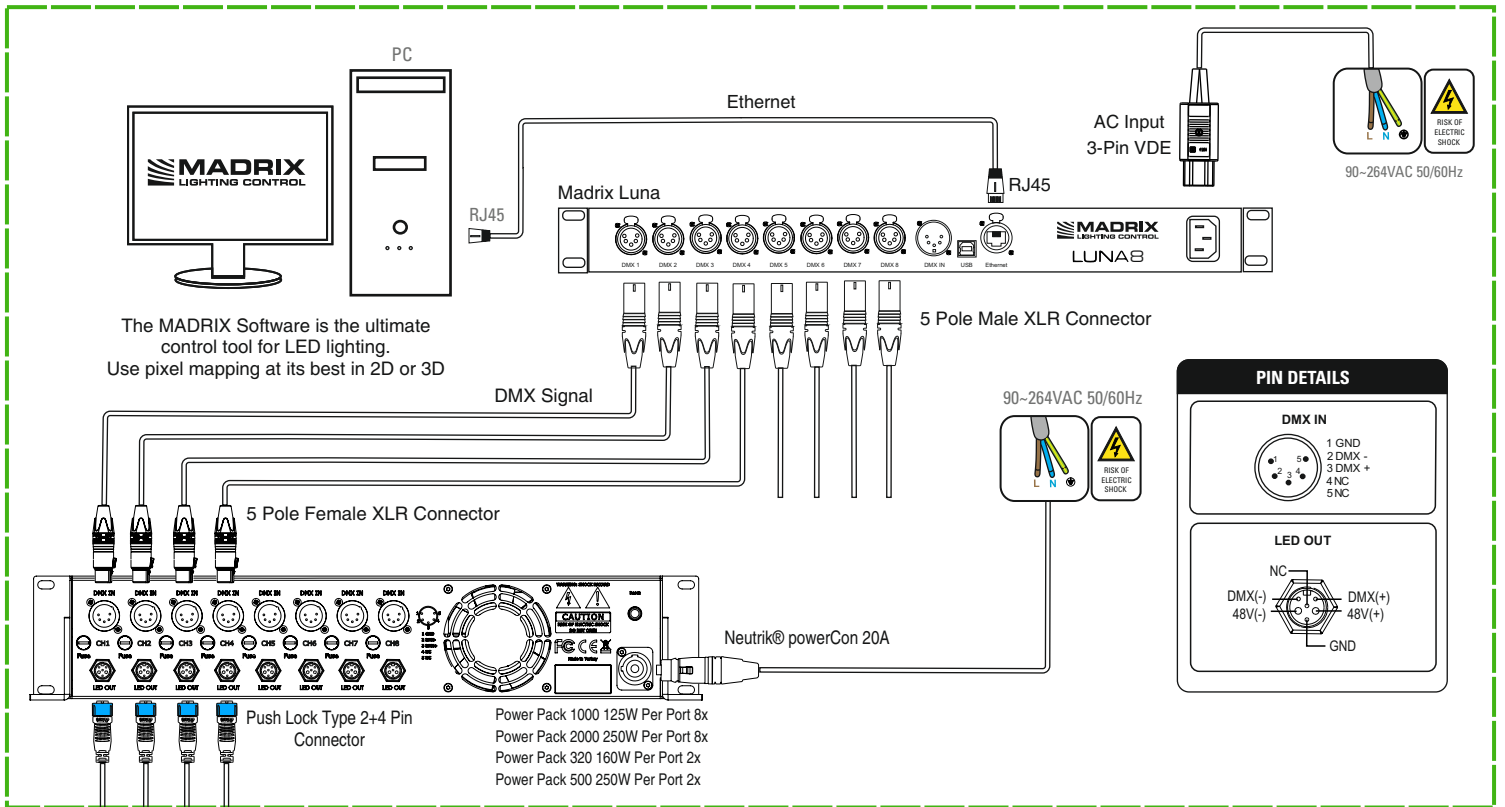|	
Storage Temperature:	-40°C - 85°C - (-40°F - 185°F)
Start-up Temperature:	-25°C - 50°C - (-13°F - 122°F)
Operating Temperature:	-40°C - 50°C - (-40°F - 122°F)
Thermal Protection:	Automatic over temperature protection
Cooling:	Cooling by free air convection
Vibration Resistance:	Complies with ANSI C136.31-2010
Corrosion Resistance:	Complies with ASTM B117 standard
Ingress Protection Rating:	IP65
Impact Resistance Rating:	IK07
Humidity (max.):	0 to 98%, non-condensing

Test:

All Hera LED products are assessed by a stringent 100 hour test, above and beyond what they would come across in the real world. This can be seen from our advanced RDM Monitoring System as well, leaving no place for doubt. This strict testing, builds trust, when your reputation is on the line. It is our company's culture and heritage, also our way of securing our worthwhile Customers.

Certification

EU Safety:	EN 60598-1, EN 60598-2-3, EN 62471, EN 60950-1, EN 60950-22, EN 60529, EN 62262
EU EMC:	EN 55024, EN 55032, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
US Safety:	UL 1598, UL 60950-1, UL 60950-22
US EMC:	FCC Part 15 Class A
Warranty:	5-year Limited Warranty

593,5mm / 23.3"

1093,5mm / 43"

1593,5mm / 62."

2093,5mm / 82."

35mm
1.37"

39mm
1.8"

Standard DMX Wiring Diagram

Indoor Zone

PC

Ethernet

AC Input
3-Pin VDE

RJ45

90~264VAC 50/60Hz

RISK OF ELECTRIC SHOCK

Madrix Luna

RJ45

The MADRIX Software is the ultimate control tool for LED lighting.
Use pixel mapping at its best in 2D or 3D

DMX 1 DMX 2 DMX 3 DMX 4 DMX 5 DMX 6 DMX 7 DMX 8 DMX IN USB Ethernet

LUNA8

5 Pole Male XLR Connector

DMX Signal

90~264VAC 50/60Hz

RISK OF ELECTRIC SHOCK

PIN DETAILS

DMX IN

5
1
2 3 4

1 GND
2 DMX -
3 DMX +
4 NC
5 NC

5 Pole Female XLR Connector

DMX IN DMX IN DMX IN DMX IN DMX IN DMX IN DMX IN DMX IN

CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8

Fuse Fuse Fuse Fuse Fuse Fuse Fuse Fuse

CAUTION

Neutrik® powerCon 20A

LED OUT LED OUT LED OUT LED OUT LED OUT LED OUT LED OUT LED OUT

LED OUT

NC

DMX(-)
48V(-)

DMX(+)
48V(+)

GND

Push Lock Type 2+4 Pin Connector

Power Pack 1000 125W Per Port 8x
Power Pack 2000 250W Per Port 8x
Power Pack 320 160W Per Port 2x
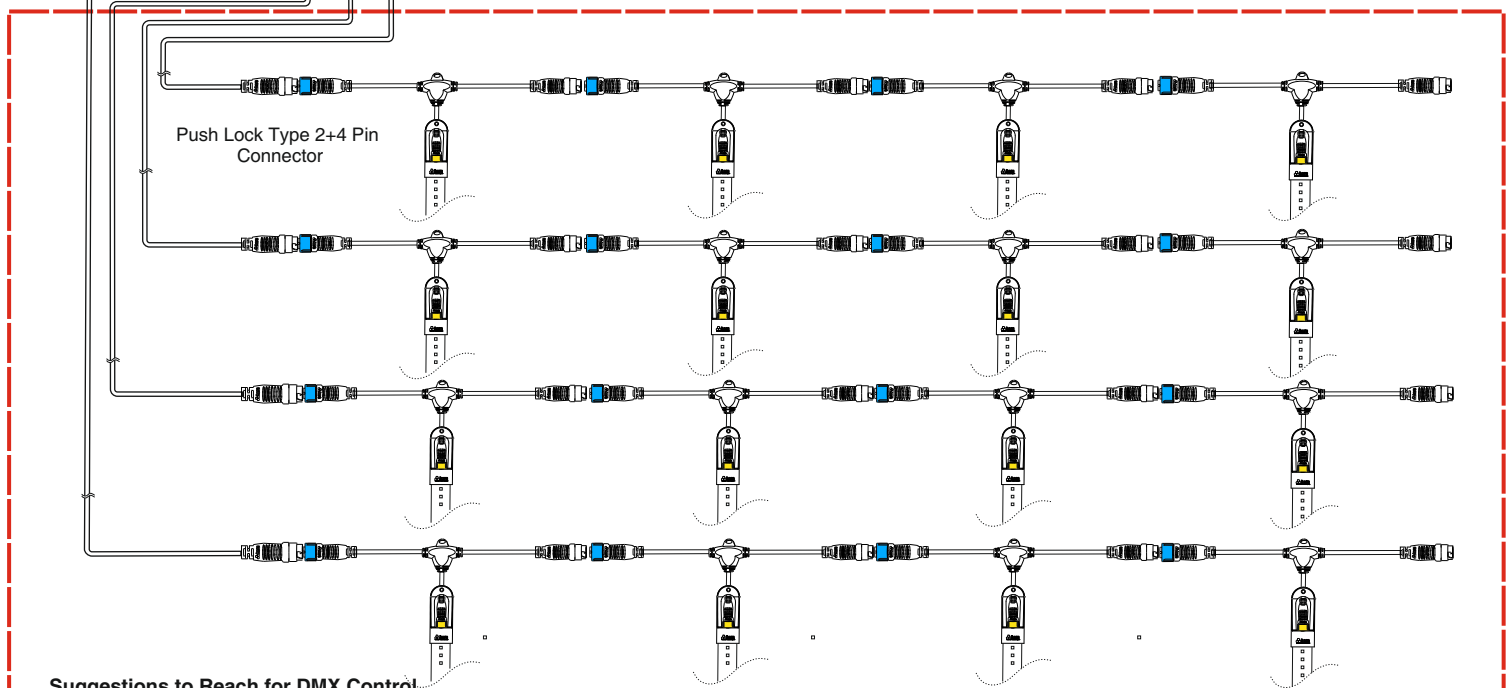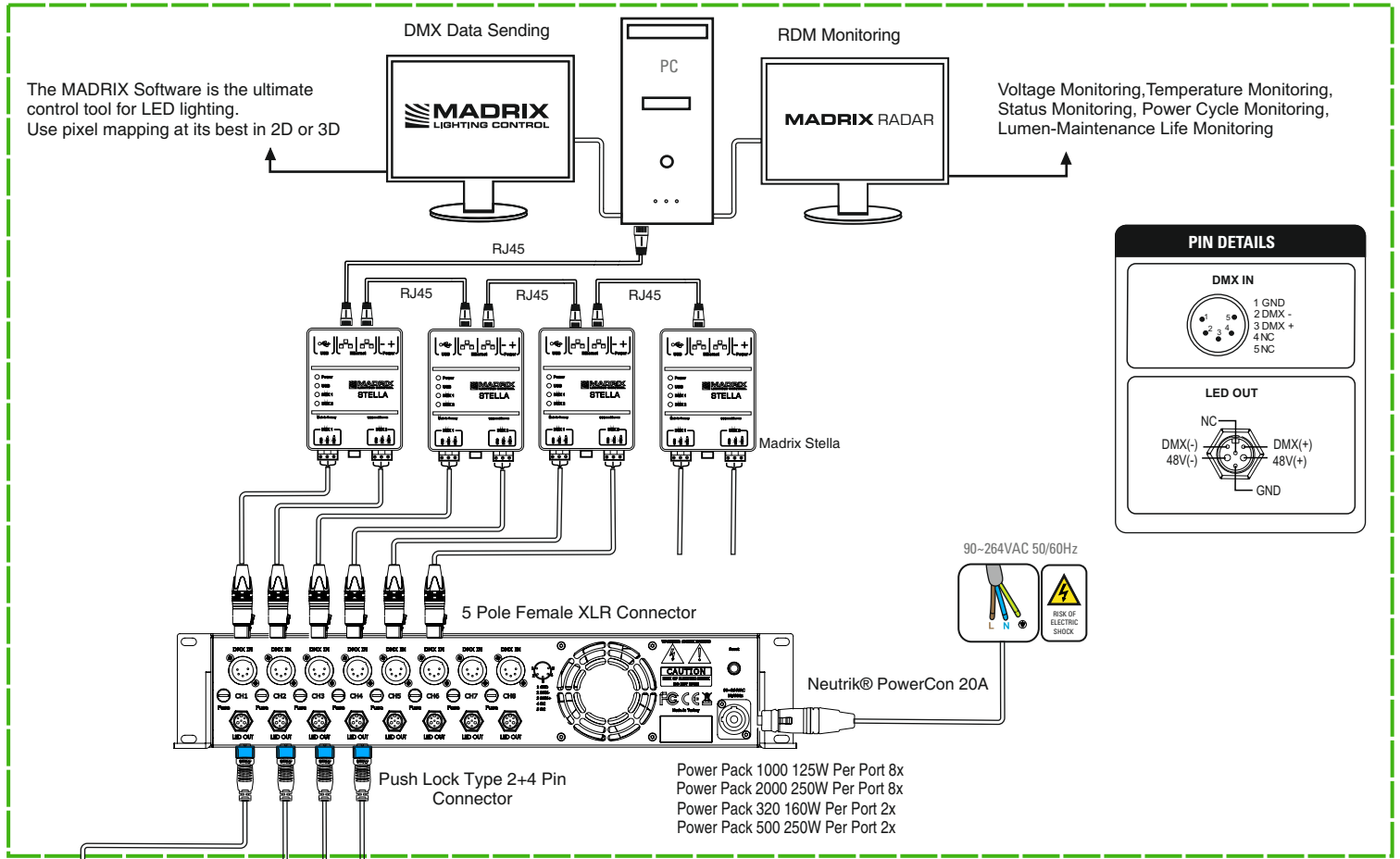Power Pack 500 250W Per Port 2x

Push Lock Type 2+4 Pin Connector

Suggestions to Reach for DMX Control
The total cable length should not be more than 3,900 ft (1200m) without buffering.
The total fixture number should not be more than 32 pcs on a single line without buffering.
It is recommended to use only connection cables with a characteristic impedance of 120 ohm, where the DMX + and DMX – data lines are intertwined and there is a ground link as a coaxial screen surrounding the inner cores.
120 Ω terminating resistor should be connected between the DMX + and DMX – output connections on the last fixture.
Do not insert a passive Y-split into the control cabling.
Use a powered DMX splitter/buffer if it is necessary to separate the control link in order to feed fixtures in different locations.
Make sure that the DMX + and DMX - connections do not get crossed at any point.

Note:
1) Total length of chain (fixtures and leader cable) maximum 70 m.
2) Max 20 meters or 32 pieces in chain (varies by selected dmx personality)
3) Total length of leader cable maximum 50 m.

Outdoor Zone

DMX Data Sending

PC

RDM Monitoring

The MADRIX Software is the ultimate control tool for LED lighting.
Use pixel mapping at its best in 2D or 3D

Voltage Monitoring, Temperature Monitoring, Status Monitoring, Power Cycle Monitoring, Lumen-Maintenance Life Monitoring

MADRIX LIGHTING CONTROL

MADRIX RADAR

RJ45

RJ45   RJ45   RJ45

Madrix Stella

PIN DETAILS

DMX IN

1 GND
2 DMX -
3 DMX +
4 NC
5 NC

LED OUT

NC

DMX(-)
48V(-)

DMX(+)
48V(+)

GND

90~264VAC 50/60Hz

RISK OF ELECTRIC SHOCK

5 Pole Female XLR Connector

Neutrik® PowerCon 20A

Push Lock Type 2+4 Pin Connector

Power Pack 1000 125W Per Port 8x
Power Pack 2000 250W Per Port 8x
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Power Pack 500 250W Per Port 2x

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3) Total length of leader cable maximum 50 m.

RDM Explanation

3D Vertical Tube RGB Series RGB complies with the RDM Monitoring Command System. In order to use RDM Monitoring System, a compatible controller is required depending on the installation. Through DMX data connection, it is possible to control or change the fixture's settings, send commands and receive or monitor the fixture's data. The recommended RDM controller and the wiring diagram can be found on page 5. RDM command functions supported by 3D Vertical Tube RGB Series are given in the list below.

Device Management

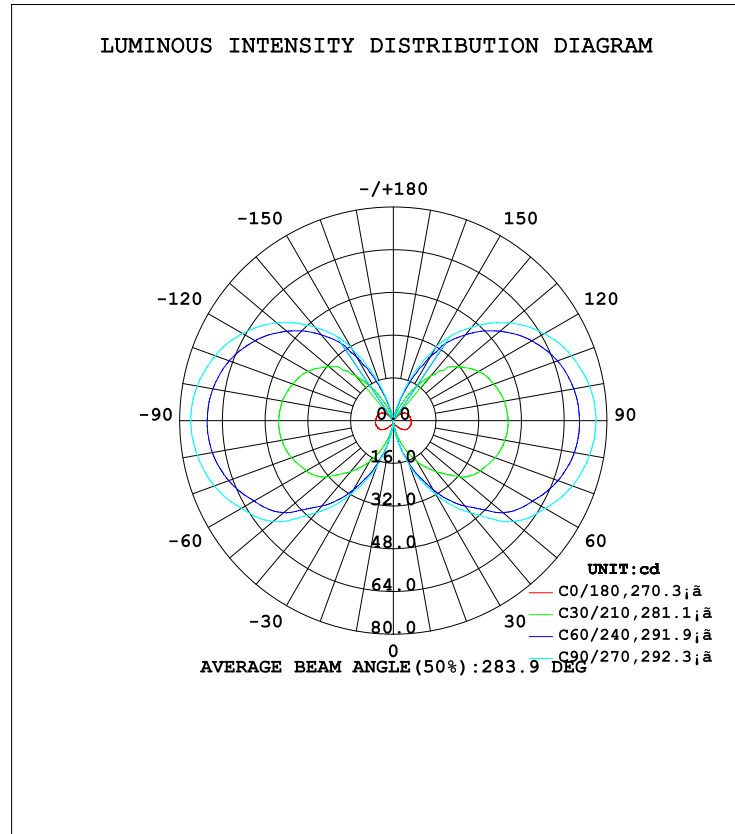|	Get	Set
Device Info	✔	
DMX Start Address	✔	✔
Identify Device	✔	✔
Device Model Description	✔	
Device Label	✔	✔
Software Version Label	✔	
DMX Personality	✔	✔
DMX Personality Description	✔	
Device Hours	✔	
Lamp Hours	✔	
Device Power Cycles	✔	
Status Message	✔	
Queued Message	✔	
Status ID Description	✔	
Supported Parameters	✔	
Parameter Description	✔	
Factory Defaults		✔
Sensor Definition	✔	
Sensor Value	✔	
Record Sensor		✔
Reset Device		✔
Power State	✔	✔
Perform Self Test		✔
Self Test Description	✔	
Language	✔	

* The command names and command functions used on different RDM controllers may vary.
* Incompatible RDM controllers may cause drawbacks such as partial operation, no-operation, or incorrect fixture information.
* You can check the recommended RDM controllers on the www.heraled.com website.

3D Vertical Tube RGB Series

RGB

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

-/+180

-150   150

-120   120

-90   90

0.0

16.0

32.0

48.0

-60   60

64.0

UNIT:cd

-30   30   C0/180,270.3¡ã
                   C30/210,281.1¡ã
80.0   C60/240,291.9¡ã
0   C90/270,292.3¡ã

AVERAGE BEAM ANGLE(50%):283.9 DEG

*Please visit www.heraled.com for detailed information and laboratory reports.

www.heraled.com   7

VT50 RGB (Raw Mode)

No	Fixture Personality	Channel		Value	Function	Description
1	RGB Raw Mode 1 LED:1px	(42Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
2	RGB Raw Mode 2 LEDs:1px	(21Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
3	RGB Raw Mode 7 LEDs:1px	(6Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
4	RGB Raw Mode 14 LEDs:1px	(3Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	

VT100 RGB (Raw Mode)

No	Fixture Personality	Channel		Value	Function	Description
1	RGB Raw Mode 1 LED:1px	(84Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
2	RGB Raw Mode 2 LEDs:1px	(42Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
3	RGB Raw Mode 7 LEDs:1px	(12Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
4	RGB Raw Mode 14 LEDs:1px	(6Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	

VT150 RGB (Raw Mode)

No	Fixture Personality	Channel		Value	Function	Description
1	RGB Raw Mode 1 LED:1px	(126Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
2	RGB Raw Mode 2 LEDs:1px	(63Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
3	RGB Raw Mode 7 LEDs:1px	(18Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
4	RGB Raw Mode 14 LEDs:1px	(9Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	

VT-200 RGB (Raw Mode)

| No	Fixture Personality	Channel		Value	Function	Description
1	RGB Raw Mode 1 LED:1px	(168Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
2	RGB Raw Mode 2 LEDs:1px	(84Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
3	RGB Raw Mode 7 LEDs:1px	(24Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	
4	RGB Raw Mode 14 LEDs:1px	(12Ch.)	1	0-255	Red: 0-100%	Each colour (RGB) can be controlled individually
			2	0-255	Green: 0-100%	
			3	0-255	Blue: 0-100%	

Order Codes

Products

P01040085 VT50-RGB 3D Vertical Tube
P01041085 VT100-RGB 3D Vertical Tube
P01042085 VT150-RGB 3D Vertical Tube
P01043085 VT200-RGB 3D Vertical Tube

Cable
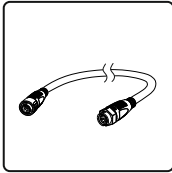
P20202-1   Push Lock Type 2+4 Pin 1M Extension Cable
P20202-2.5   Push Lock Type 2+4 Pin 2.5M Extension Cable
P20202-5   Push Lock Type 2+4 Pin 5M Extension Cable
P20202-7.5   Push Lock Type 2+4 Pin 7.5M Extension Cable
P20202-10   Push Lock Type 2+4 Pin 10M Extension Cable
P20202-15   Push Lock Type 2+4 Pin 15M Extension Cable
P20202-20   Push Lock Type 2+4 Pin 20M Extension Cable
P20002-3.5   Push Lock Type 2+4 Pin 3.5M Extension Cable
P20002-4   Push Lock Type 2+4 Pin 4M Extension Cable
P20002-5   Push Lock Type 2+4 Pin 5M Extension Cable
P20002-7.5   Push Lock Type 2+4 Pin 7.5M Extension Cable
P20002-10   Push Lock Type 2+4 Pin 10M Extension Cable
P20002-15   Push Lock Type 2+4 Pin 15M Extension Cable
P20002-20   Push Lock Type 2+4 Pin 20M Extension Cable
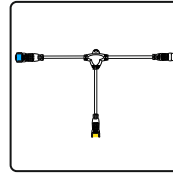
P20204 2+4 Pin T Cable 0.3M Push Lock Type
P20205 2+4 Pin T Cable 0.6M Push Lock Type
P20206 2+4 Pin T Cable 1.2M Push Lock Type

Power / Data Supplies
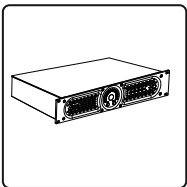
P08002 Power Pack 320 320W 2 Outputs Power Supply
P08003 Power Pack 500 500W 2 Outputs Power Supply
P08004 Power Pack 1000 1000W 8 Outputs Power Supply
P08013 Power Pack 2000 2000W 8 Outputs Power Supply

Accessories
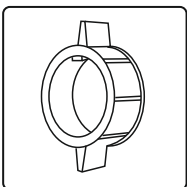
P20203 Push Lock Type 2+4 Pin Female Plug Cap

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SİSTEMLERİ İÇ VE DIŞ TİCARET A.Ş.**
Güllübağlar Mah. Kahramanlar Cad. No 3/1
34906 Pendik / İSTANBUL / TÜRKİYE
T: 0216 307 79 00 (pbx) **F**: 0216 307 79 02

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