

Octopus Series 800W/640W/200W LED Grow Light







Octopus 800

Octopus 640

Octopus 200

1 Introduction

This manual describes the installation and connection of the product and also describes how to use the product. Mounting and installing of the Octopus Series LEDs may only be executed by certified service personnel. Please read and understand this manual completely before using the product. Only use the product as specified in this manual.

2 Product Information & Specifications

2.1 General Information

Product Name	Octopus Series LED Grow Lights							
Manufacturer	Shenzhen VANQ To	Shenzhen VANQ Technology Co., Ltd.						
Version	US	EU	UK	AUS				
Plug Type	US plug 120-277V	EU plug 230V	UK plug 240V	AUS/NZS plug 240V				
Input Voltage	120-277VAC	100-230VAC	100-240VAC	100-240VAC				







US 6-15P



US L7-15P



EU plug 230V



UK plug 240V



AUS/NZS plug 240V

Note: Other types of plug are also available, please check with our sales engineers directly.

2.2 Technical specifications

		Octopus	800	Octopus 640	Oc	topus 200		
Power								
Input Power		800W ±5	5%	640W ±5%	2	00W ±5%		
Input Voltage(Stand	ard)	100-277\	/AC	100-277VAC	10	00-277VAC		
High Input Voltage(Opt	•	277-480\	/AC	277-480VAC		_		
Light Source Detai	ls							
	Model	+		+	+ +			
LED Diodes - White	Supplier	SMD2835 OSRAM OSRAM		OSRAM OSRAM		SRAM OSRAM		
LLD DIGUES WHILE	Rated Max Power per LED Diode	0.82W ±5% (250mA x 3.3V)		0.82W ±5% (250mA x 3.3V)		.82W ±5% 0mA x 3.3V)		
	Actual Working Power per LED Diode	0.2W ±5	i%	0.2W ±5%	С).2W ±5%		
	LED Diodes Qty Per GLMX720 Series LED Fixture	2048po	es	1536pcs		512pcs		
	Model	BLUE SMD303	RED 30	BLUE RED SMD3030	BLU	+ RED SMD3030		
LED Diodes	Supplier	A SAN	IAN	A SANAN		SANAN		
- Single Color	Rated Max Power per LED Diode	0.66W ±		0.66W ±5% (300mA x 2.6V)		.66W ±5% 0mA x 2.6V)		
	Actual Working Power per LED Diode	0.28W ±	5%	0.28W ±5%	0.	.28W ±5%		
	LED Diodes Qty Per GLMX720 Series LED Fixture	1408pcs		1056pcs	352pcs			
Total LED Diodes Number		3456pcs		2592pcs	864pcs			
Rated Max Power of all LED Diodes per LED Fixture (NOT ACTUAL POWER OF LED FIXTURE)		2608W ±5%		1956W ±5%	652W ±5%			
Actual Workir LED Fixture / Power of all LED Dic	Rated Max	31%		32%	30%			
Spectrum Relative Radia	stion Intensity	1.2 1.4 1.6 2.6 2.6			1.7 1.9 6.8 1.0 1.0			
	· · · · · · •	Character to the second		C. Service Company	Company of the second of the s			
	tically Active Radiati	on)			l			
PPF(Photosynthe	etic Photon Flux)	2160 µmol/s		1728 μmol/s	5	40 μmol/s		
Efficacy (100%	6-50% power)	2.7-2.8 μmol/J		2.7-2.8 μmol/J	2.7	′-2.8 µmol/J		
Recommended App	olications							
Indoor Verti	cal Farming	•		•		_		
Recommended (Indoor Verti	Growing Area	4ft x 4ft 1.2m x 1.2m		4ft x 4ft 1.2m x 1.2m		_		
Recommended Hangin (Indoor Verti	ng Height From Canopy	0.5-1.5 15cm-45	ft	0.5-1.5ft 15cm-45cm		_		
Indoor G		•)	•			
Recommended (Indoor G		5ft x 5t 1.5m x 1.		4ft x 4ft 1.2m x 1.2m				
Recommended Hangin (Indoor G		1ft-1.5 30cm-45		1ft-1.5ft 30cm-45cm				
Physical								
LED Fixture Weight		17 kg, 37.4 lbs		14 kg, 30.8 lbs	14 kg, 30.8 lbs 4.4 kg, 9.6			
Dimensions		111.5cm L x 110cm W x 8.7cm D 43.9in L x 43.7in W x 3.42in D		111.5cm L x 110cm W x 8.7cm D 43.9in L x 43.7in W x 3.42in D		54.5cm W x 8.5cm E 21.46in W x 3.35in E		
	Working Temperature		-20°C ~ 40°C -4°F ~ 104°F					
Working Te	mperature			0-10V				
Working Te				0-10V				
Dimr	ning			0-10V IP43				
Dimi	ning							
Dimr	ning	•				•		

ORDERING CODE MATRIX FOR LIGHT FIXTURE

FAMILY	FAMILY MODEL INPUT VOLTAGE		PLUG TYPE
Octopus	800 800W 640 640W 200 200W	S 100-277VAC H 277-480VAC * H is only available with pigtail power cord.	US5 NEMA 5-15P US6 NEMA 6-15P USL7 NEMA L7-15P EU EU 230V UK UK 240V AUS AUS/NZS 240V P Pigtail

NOMINAL ELECTRICAL AC INPUT

Octopus 800

AC Voltage	120V	208V	230V	277V	347V	380V	400V	480V
AC Current	6.7A	3.85A	3.48A	2.89A	2.31A	2.11A	2.01A	1.67A
AC Power	804W	802W	801W	798W	800W	803W	803W	801W
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.97

Octopus 640

AC Voltage	120V	208V	230V	277V	347V	380V	400V	480V
AC Current	5.37A	3.08A	2.78A	2.3A	1.85A	1.7A	1.6A	1.33A
AC Power	644W	642W	641W	638W	641W	645W	642W	641W
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.97

^{*} Octopus 200 is only available with 100-277VAC version.

2.3 Compatible products and accessories

Product	Product Name	Part Number
Controller	0-10V dimming controller	MG-VD100
	Power cord with US plug 5-15P, 1.5m/5ft	MG-PC-US515
	Power cord with US plug 6-15P, 1.5m/5ft	MG-PC-US615
	Power cord with US plug L7-15P, 1.5m/5ft	MG-PC-USL715
Power cord	Power cord with EU plug 230V, 1.5m/5ft	MG-PC-EU230
	Power cord with UK plug 240V, 1.5m/5ft	MG-PC-UK240
	Power cord with AUS/NZS plug 240V, 1.5m/5ft	MG-PC-AU240
Dimming cables	Dimming cables T-shape daisy chain connection dimming cable, 2m/6.5ft	
Light Hanger	1/8" Adjustable Ratchet Hangers 1.8m/6ft (Set of 2 - Holds 150 lbs/100Kg)	MG-RH-01
	Steel Wire Rope Hanger 30cm/1ft (Set of 4 - Holds 150 lbs/100Kg)	MG-WR-01

2.4 Environment

The product is intended to be used in indoor growing environments. The product can be used in wet environments

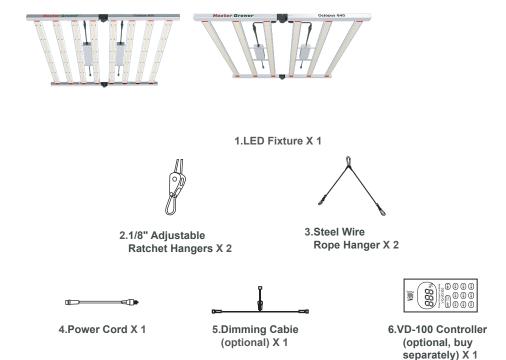
The product may not be used outdoors. The Octopus Series LEDs light functions optimal when the max ambient temperature is between 20~40°C.

2.5 Legal

CE LVD approval according to: EN 60598-2-1&EN 62471&EN 62493&EN 62778
CE EMC approval according to: EN 55015&EN 61547&EN 61000-3-2/-3
FCC

3 Packing List

Please follow the content of the list and carefully check whether the purchased equipment and accessories are complete. If you find that the actual product does not match the list, or the product is damaged, please contact us immediately and provide photos or videos!



No.	Product Name	Model	Quantity
1	Octopus 800X/400X	800W/400W	1
2	1/8" Adjustable Ratchet Hangers	1.8m/6ft	2
3	Steel Wire Rope Hanger	30cm/1ft	2
4	Power Cord	1.5m	1
5	Dimming Cable(optional)	T-Shape	1
6	VD100 Controller(optional, buy separately)	0-10V Dimming	1

4 Safety Precautions & Warnings

Warning!

Carefully read the warnings below before using or working with the product!





⚠ Do not open or disassemble the LED light. Opening or modifying the LED light can be dangerous and will void the warranty.

⚠ Do not use the LED light when either the LED light or its power cord are damaged. Replace the power cord only with original certified cords.

Modifications to the cords can lead to unwanted electromagnetic effects, which makes the product not comply with legal requirements.



- (ambient) temperatures outside the specified range:
- dust and contamination;
- direct sunlight during use or HID light that could heat up the ballast.

Always disconnect the LED light from mains before performing any maintenance.

Always allow for a cool down period of at least 30 minutes before touching the LED bars. Touching the LED bars when the light is lit or immediately afterwards can result in severe burns!

⚠ Do not use the LED light near flammable, explosive or reactive substances. Do not use sulfur vaporizers or water misters.

The installation and use of the LED light is the responsibility of the end user. Incorrect use or installation can lead to failure and damage to the LED light. Damage to the LED light and electronic circuitry as a result of incorrect installation and use revokes the warranty.

5 Installation

*All the LED fixtures in this series can be installed according to the same instructions.

Warning!

Mounting and installing of the LED light may only be executed by certified service personnel, in accordance with the applicable local laws and regulations.

accordance with the applicable local laws and regulations.

The installer is responsible for correct and safe installation.

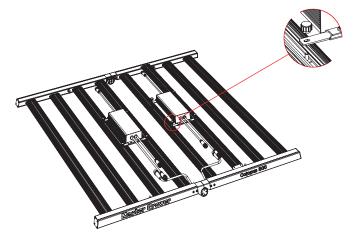
⚠ Ensure the local cabling can support the voltage and current requirements of the LED light.

Avoid coiled cords and keep mains leads separated. This prevents electromagnetic interference.

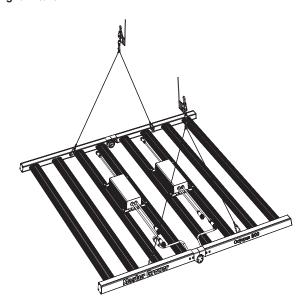
Do not connect or disconnect the LED light under load.

Mount the system to something that can hold the weight of the LED light.

5.1 Mounting the LED driver onto the light fixture



5.2 Hanging the light fixture



The suggested height from the plant canopy to the LED light is:

During vegetative stage, 1ft - 1.5ft/30cm - 45cm

During flowering stage, 0.6ft - 1ft/15cm - 30cm

Below is the PPFD map of 5ft x 5ft/1.5m x 1.5m at 3 different hanging heights.

Octopus 200 Octopus 640 Octopus 800 Hanging Height: 6" (15cm) Hanging Height: 6" (15cm) 114 260 328 351 373 365 349 326 311 164 95 216 273 292 311 304 291 272 259 137 Hanging Height: 6" (15cm) 964 1040 1018 954 890 737 297 224 539 603 606 531 207 279 756 968 749 269 322 3ft/0.9m 323 904 907 331 265 990 267 218 529 586 601 524 214 291 298 309 312 288 279 265 122 332 349 357 371 374 345 334 318 146 4ft/1 2m 3ft/0.9m Average PPFD of 5ft x 5ft footprint: 884 µmol/m²/s Average PPFD of 3ft x 3ft footprint: 631 umol/m²/s Average PPFD of 5ft x 5ft footprint: 736 µmol/m²/s Average PPFD of 4ft x 4ft footprint: 1195 umol/m²/s Average PPFD of 4ft x 4ft footprint: 996 µmol/m²/s Hanging Height: 12" (30cm) Hanging Height: 12" (30cm) 244 377 405 447 535 573 532 484 448 256 Hanging Height: 12" (30cm) 203 314 338 372 446 478 443 403 373 213 396 599 700 834 913 920 887 769 647 426 500 584 695 761 767 739 641 539 355 463 292 461 439 687 641 391 394 386 387 624 630 385 373 285 437 459 460 442 296 280 434 472 487 520 552 513 477 455 294 233 361 393 406 433 460 428 398 379 245 4ft/1 2m 4ft/1.2m 3ft/0.9m Average PPFD of 5ft x 5ft footprint: 817 µmol/m²/s Average PPFD of 3ft x 3ft footprint: 537 umol/m²/s Average PPFD of 5ft x 5ft footprint: 681 umol/m²/s Average PPFD of 4ft x 4ft footprint: 1002 µmol/m²/s Average PPFD of 4ft x 4ft footprint: 835 µmol/m²/s Hanging Height: 18" (45cm) Hanging Height: 18" (45cm) 346 425 465 517 523 516 510 484 443 340 288 354 388 431 436 430 425 403 369 283 Hanging Height: 18" (45cm) 470 520 592 730 737 754 723 610 516 508 392 433 493 608 614 628 603 508 430 423 292 406 441 436 407 301 531 632 642 542 883 831 706 351 362 708 605 547 4ft/1.2m 403 579 407 567 483 548 644 345 633 352 519 619 543 293 403 433 429 401 296 293 368 378 429 436 424 411 387 365 320 352 441 453 515 523 509 493 464 438 384 4ft/1 2m 3ft/0.9m 5ft/1 5m Average PPFD of 5ft x 5ft footprint: 724 µmol/m²/s Average PPFD of 3ft x 3ft footprint: 482 umol/m²/s Average PPFD of 5ft x 5ft footprint: 603 µmol/m²/s Average PPFD of 4ft x 4ft footprint: 695 µmol/m²/s Average PPFD of 4ft x 4ft footprint: 834 umol/m²/s

5.3 Connecting the LED light to the mains

Warning!

Make sure mains power is switched off.

Ensure the cord is not coiled and does not touch any hot surfaces.



Connect the cables according to local rules, safety regulations and electrical code.



🔼 Ensure external switching gear can cope with the inrush current of the LED fixture. Always use a double pole contactor suitable for switching a capacitive load. Never use household timers to switch the LED fixture!

6 Connecting LED Light To A Controller

Warning!



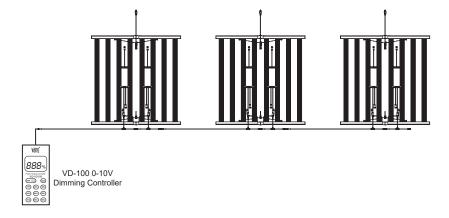
Do not connect or disconnect the controller with LED light under load.



⚠ Ensure the power cord and the controller cables do not touch any of the LED bars.

Using a daisy chain setup, a maximum of 50pcs LED lights can be connected to one controller. The controller can dim the LED light from 0 to 100%.

- Connect the dimming cable to the dimming port on the first LED light.
- Use dimming cable (T-shape) to connect the dimming port of the following LED light.
- Repeat these steps to connect up to 50pcs LED lights.



7 Inspection, maintenance and repair

- Caution! Do not clean the LED fixture with detergents, abrasives or other aggressive substances.
 - Regularly check the LED fixture for dust or dirt buildup. Clean if necessary. Contamination may cause overheating and decreased performance. Clean the outside of the LED fixture using a dry or damp cloth.
 - Regularly check the cables of the LED fixture to ensure it is undamaged.

8 Storage and disposal

- Store the LED fixture in a dry and clean environment, with an ambient temperature of-20~85° C.
- The product must not be discarded as unsorted municipal waste, but must be collected separately for the purpose of treatment, recovery and environmentally sound disposal.

9 Warranty service

VANQ technology warrants the mechanical and electronic components of their product to be free of defects in material and workmanship if used under normal operating conditions for a period of three(3) years from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use, VANQ technology shall, at its discretion, either replace or repair the product using suitable new or reconditioned products or parts. In case VANQ technology decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. three(3) years from the date of purchase of the original product. For service, return the LED light to your shop with the original sales receipt.

Manual: Octopus 800/640/200

LED Grow Lights Manual