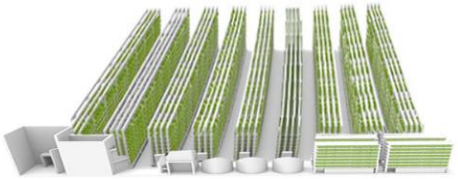
TRÄDGÅRDSTEKNIK®

OPCOM®

Living Green & Healthy



All Right Reserved by 敦朴

OPCOM AI Smart Container

Hydroponic Farming

40ft. Interactive Container

About Container

OPCOM Containers has an advanced collection system for hydroponic growth technology that delivers high throughput and unmanned operation. Intelligent design provides the perfect solution for plant seedlings, planting and final harvesting.

Unmanned clean room factory design prevents external germ contamination. Through the OPCOM cloud control system, the synchronous monitoring system and data storage are realized, that is, the lighting/air conditioning/nutrient solution system control adjustment is automatically performed locally and remotely.

A high-speed growing wave camera that is self-developed and patented to capture every detail of plant growth. Integrating OPCOM's unique long wave, the plant growth rate is increased by 20%.

In the global leading position with patented design, up to 11 advanced intelligent AI (11A) smart containers developed independently. The investment you make will receive the highest return value.

It will provide you with high-quality seedlings, leafy vegetables, strawberry planting containers and hydroponic greenhouses at the most competitive cost.

The OPCOM high-yield container of AI intelligent control system will take you Entering a new generation of high-tech agriculture and achieving great success.

TRÄDGÅRDSTEKNIK

OPCOM®

Hydroponic Farming

11A Hydroponics Container

TOFC408L8
Seedling

TOFC4083
Cloner

TOFC4066
Strawberry

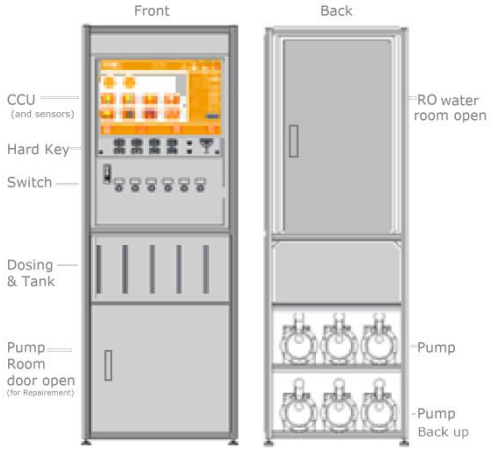
11A Advantage Smart Container

1. AIO **A**ll-**I**n-**O**ne **C**ontainer
2. AEC **A**uto **E**nvironment **C**ontrol
3. AHC **A**uto LED **H**eight **C**ontrol
4. ABC **A**uto **B**rightness **C**ontrol
5. ARC **A**uto **R**un **C**ontrol
6. ABS **A**uto **B**ackup **S**ystem
7. ACB **A**uto **C**loud **B**ackup
8. ASG **A**uto **S**timulating **G**row
9. ADA **A**uto **D**evice **A**ppended
10. APF **A**uto **P**rotection **F**unction
11. AHT **A**ll **H**ydroponics **T**echnique Supported

1. AIO: All-In-One Container

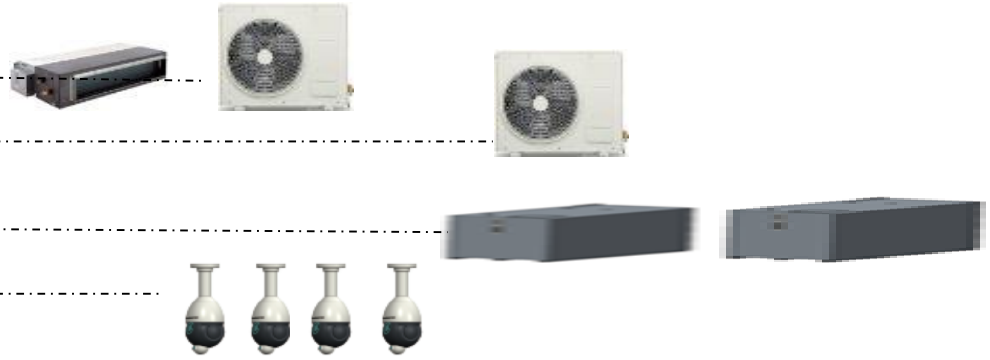
1.1 , All In One OPCOM Master Station with

- Web cloud/ Web local OPCOM smart gateway Cloud control
- RO water generator
- 5 in 1 auto dosing
- EC. pH water sensor , Environment air sensors (Temp., humidity, CO2)
- 3+3 backup pump
- 21" touch screen CCU & remotely cloud upgrade
- Both Wi-Fi (300m inside range) and Lora (1000m outside) wireless



1.2, Fully Container without external devices includes

- 40 ft High bay Container with Air Shower (for MG), Plant grower Cabinet, UV Light, Aisle Light, Circulation Fan, Water Spray, Water Drip system.
- Air conditioning indoor /Outdoor machine
- Water Cooler 3.5T
- Nutrition /Fresh water tank
- X22 Speed Dome IP Camera with OPCOM Wave



1.3, All inside container without external device

It is very suitable for side by side and stackable placement, can save space.

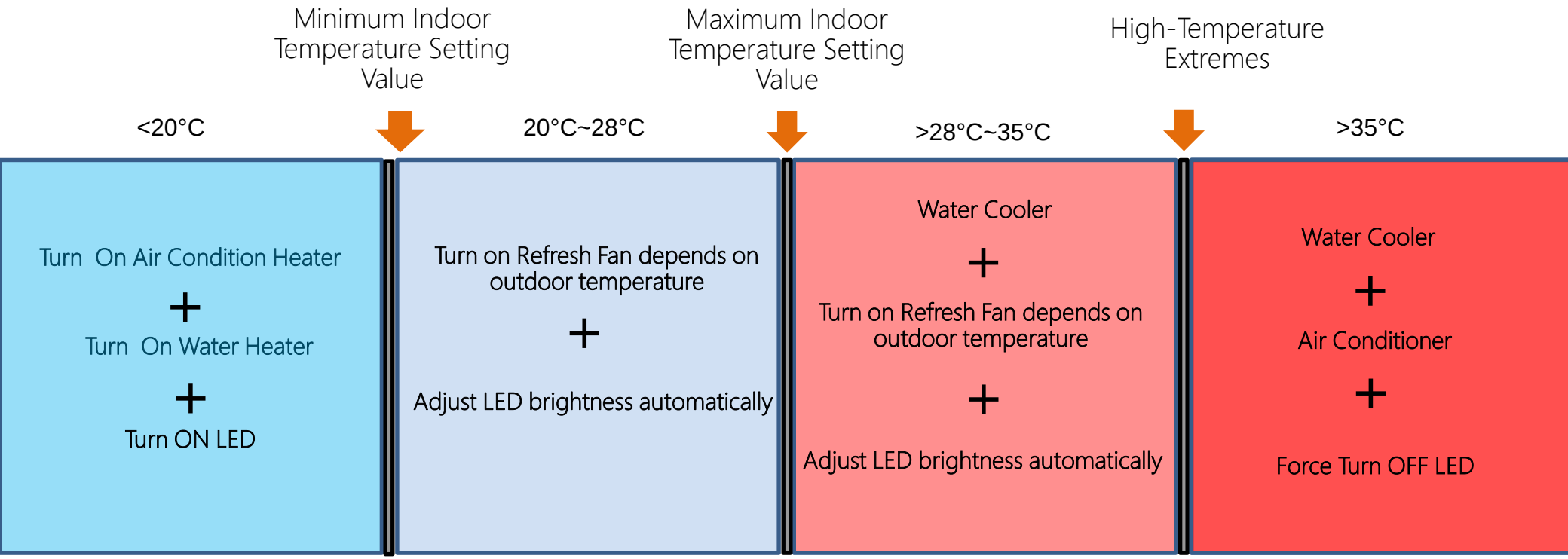
1.4, Own DSP CCU design

Own design Embedded CCU system to smart software control to each devices and cloud App for AI Big Data collection, analysis and service with Two ways long range wireless protocol.

2. AEC: Auto Environment Control

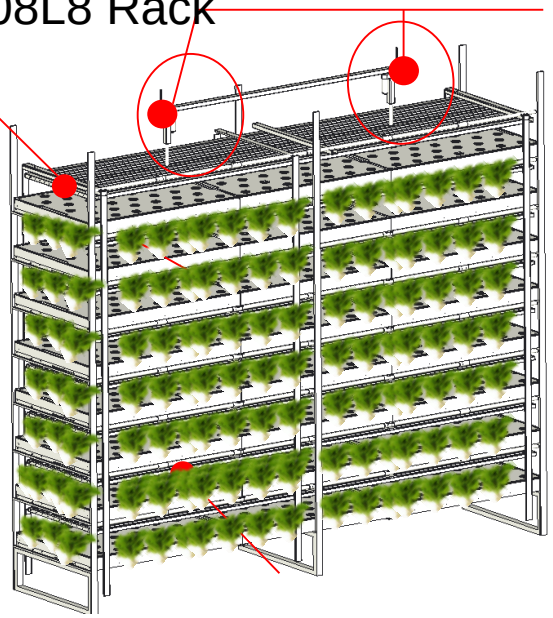
1, High effective using nature environment, saving power.

2, OPCOM Algorithm to manipulate all parameters automatically. We logs lots of accurately sensors data to monitor all corner of your container



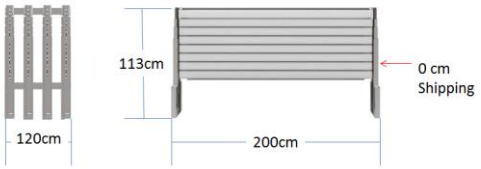
3. AHC: Auto LED Height Control

TOFC408L8 Rack

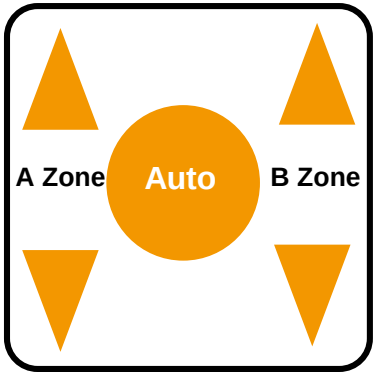


LED Bracket

OFG003L8-4PK 4 Shelf Wall



Patented Schedule / Auto adjusted curtain design growth light height against plant height in each stage to win sufficient illumination for optimized the plant growing. LED Light Power saving 57%, Air conditioning energy saving 24%

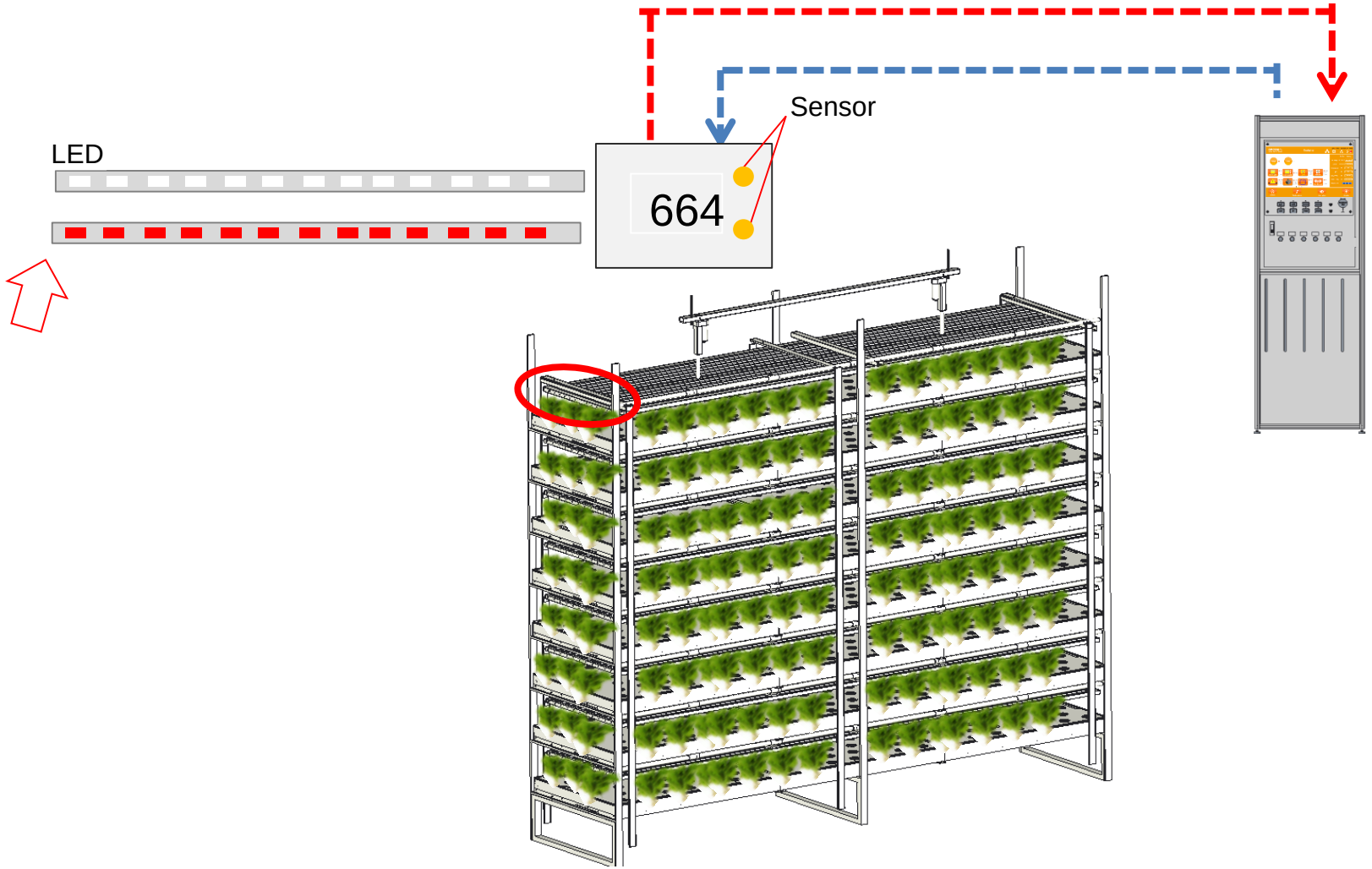


Depends on plants height automatically,

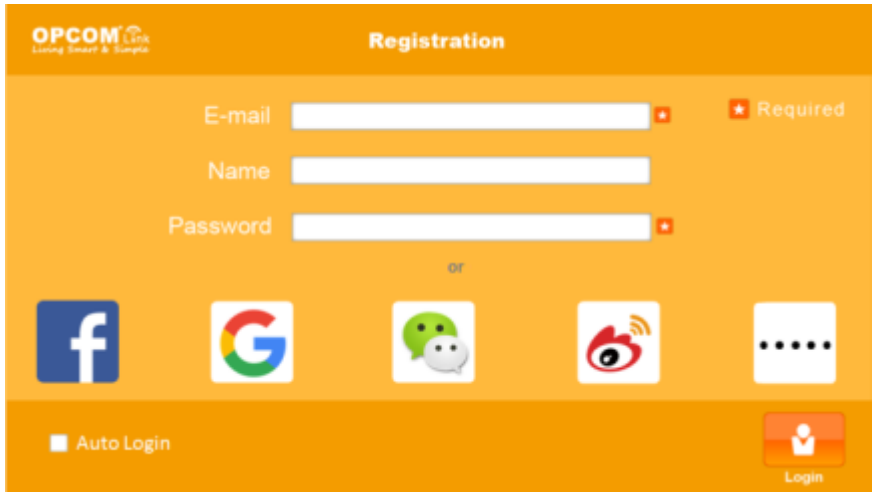
best efficiency way to save power consumption,

4. ABC: Auto Brightness Control

Auto detect LED brightness patent design, will automatic adjustable power supply when LED light brightness drop to 70% to increase brightness.



5. ARC : Auto Run Control

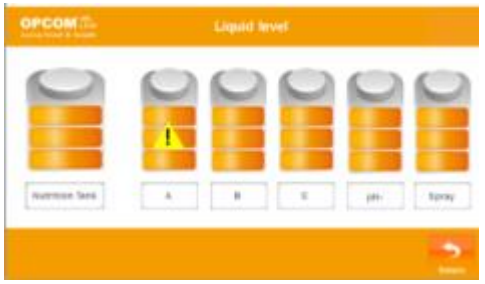


Login system to insure safety,
and support social net work login

Fully automated smart interface

RGBW full spectrum light

Heater/Cooler control



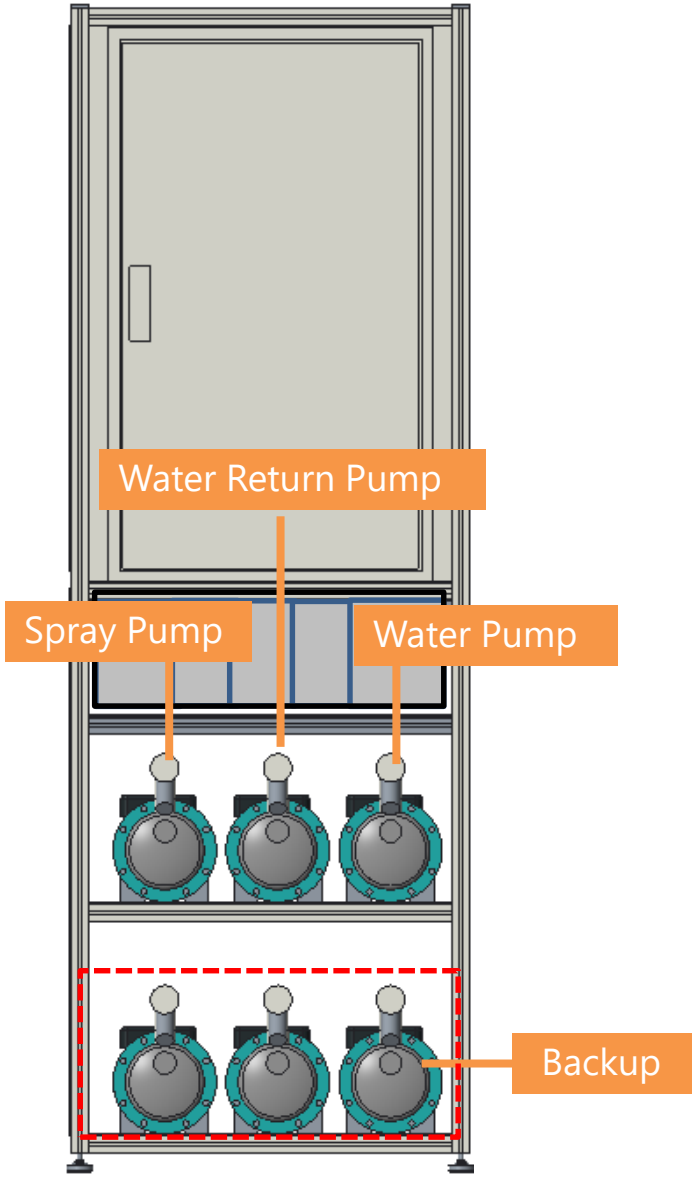
Auto dosing

Live view and storage time lapse

Easy to monitor plant and control full conditions

6. ABS: Auto Backup System

Back of Master Station



When pumps malfunction, the backup one will start works immediately to prevent the plants from dying.

OPCOM spare parts program provides additional one year backup pump, filter, light.....

7. ACB: Auto Cloud Backup

8. ASG: Auto Stimulating Plants Grow

OPCOM Wave delivery specific microwave energy to each plant growing fast up to 20%.

9. ADA: Auto Device Appendence

IPC

\+

Up to 1024pcs RS422 system Adapter(660C/ 661C/662C/ 663C/664C/665C)

\+

Cooler/ Heater

\+

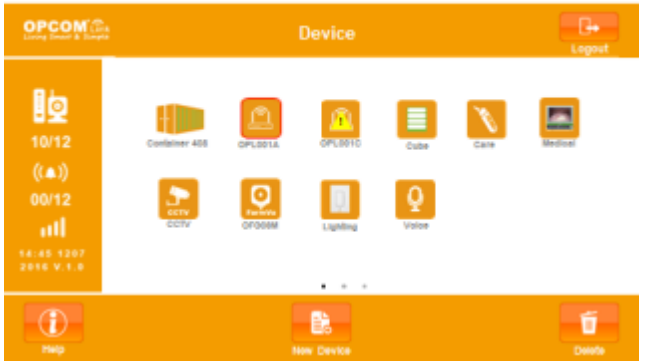
Pump

... etc.

Master station can control 64sets tent, each tent 32pcs device.

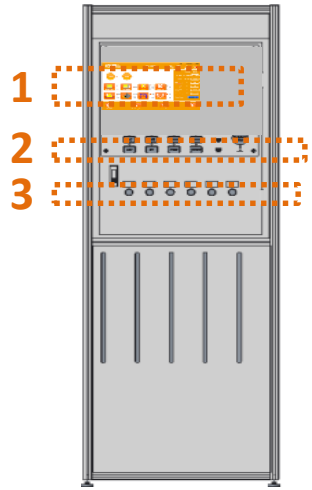
OPCOM provides a variety of accessories help you manage not only your container, but also the plant factory

Device



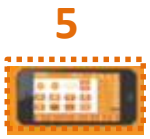
Besides the extension of devices, OPCOM cloud can integrates other system, such as surveillance, smart home, and lighting system...etc.

10. APF: Automatic Protection Function



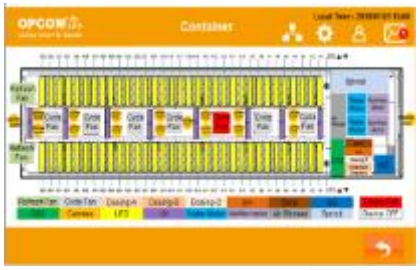
Master Station

Inside Room Control



Mobile App

5 Way to control,
Master Station IPC, Hard Key, Distribution Box, Inside Clean Room Control and Mobile App to control the container anytime, anywhere.



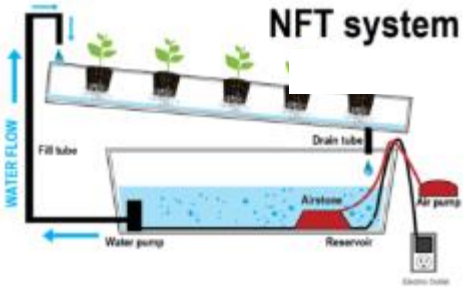
Warning and Caution Notification, Let you prevent the fatal error.

Precise AC Power Regulator (220V+/-1% , up to 30KVA) provides the stable power source.

UPS Power protect to IPC, even power shut down, but still can support continue use 1.5hour to download data storage.

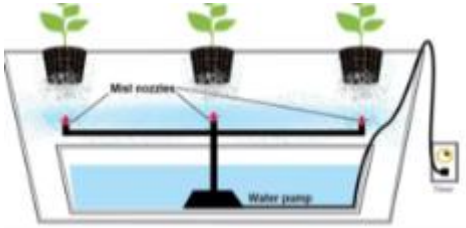
11. AHT: All Hydroponic Technique Supported

Nutrient Film Technique (NFT System)
Grow Frame / Grow Wall / Grow Wall 2
TOFC4088-MG, OHF-LN-0852



Deep Flow Technique (DFT System)
Grow Box / Grow Box 2 / O2 Light
TOFC4066, OHF-VA-0852

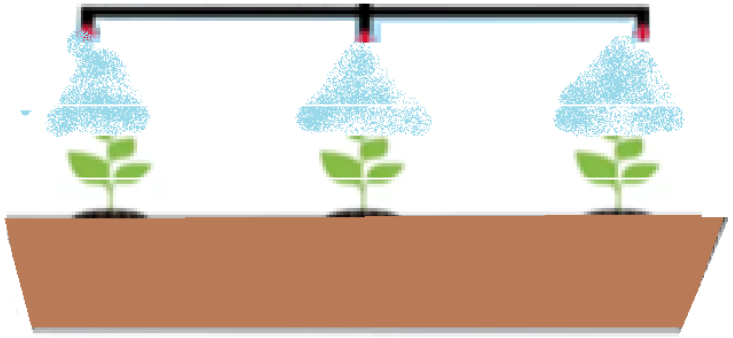
Aeroponics System
Grow Tank / TOFC4083



70µm mist

OPCOM's container support all Hydroponic Technique

Media tillage (micro spray system)



OPCOM's container also support media tillage

OPCOM®

Hydroponic Farming

AI Hydroponics Container

Seedling, Baby Leafy - TOFC408L8

TOFC408L8 40ft. AI Seedling Container

High capacity 8 layers grow system

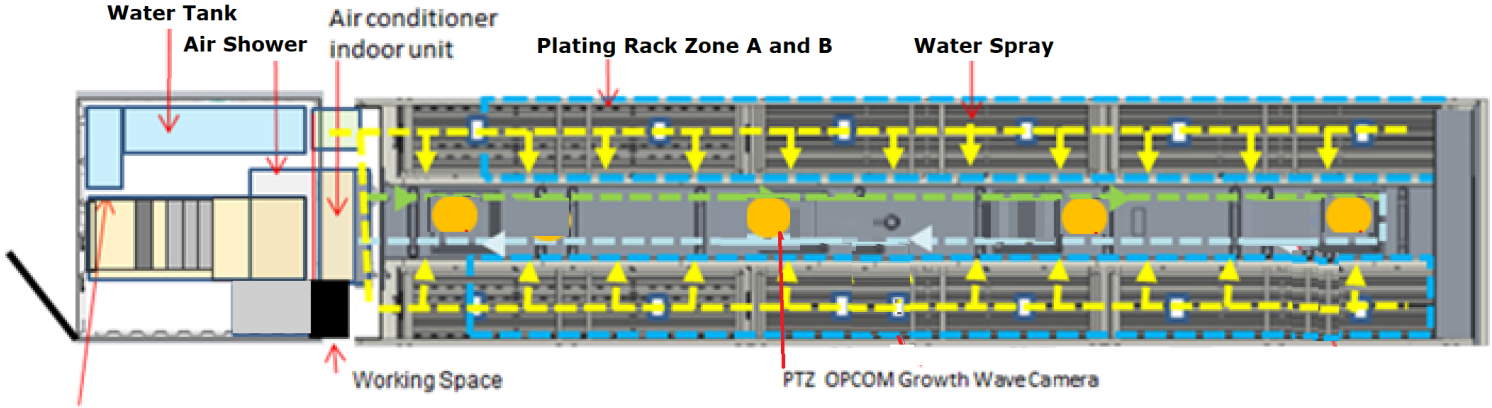
Feature:

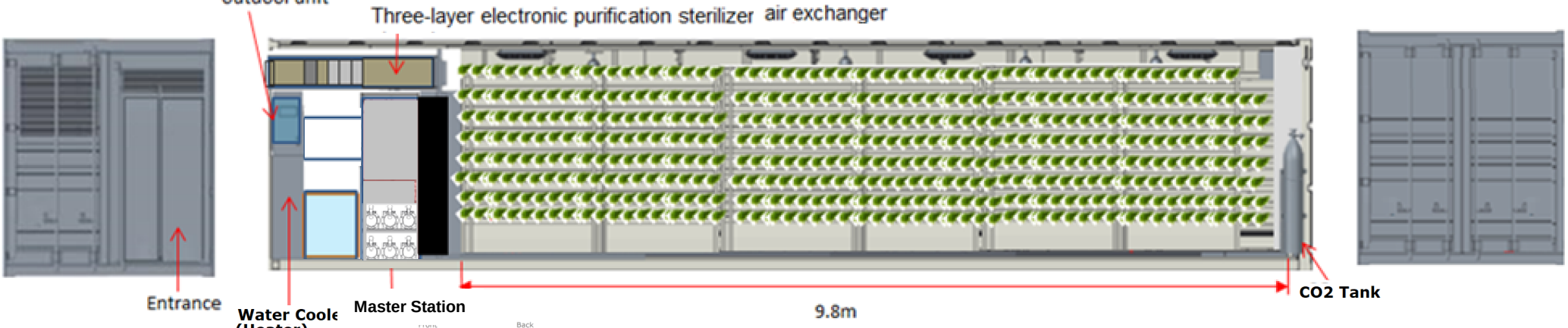
1. 40ft closed environment container design for mass production. Saving over 50% space, less labor and high value yield.
2. Customized App to fulfill wide variety crops.
3. Master Station bundled with central control IPC operates every grow machine simultaneously.
4. 22X high speed dome, timely monitor plants grow status on each grow machine, can live view, take video and do time-lapse.
5. OPCOM Advanced patent design 11A technology.
   (AIO、AEC、AHC、ABC、ARC、ABS、ACB、ASG、ADA、APF、AHT).
6. Smart OPCOM Link App automatically handles full growing condition with interactive control:
   6.1. Smart light mode controls different parameter of full color spectrum lighting.
   6.2, Smart Air mode interacts based on In/Outside thermometer / hygrometer to maintain best condition inside container.
   6.3, Intelligent watering system can be used according to schedule or using pH/EC meter in automatic liquid feeding system (Nutrition solution, A / B / C / pH + / pH-regulator) regulate and maintain the best water quality.
7. High Capacity with short grow time:
   7.1, Leafy sprout can grow 100,000pcs per cycle (2weeks), each month get 200,000 plants.
   7.2, Cloner can grow 16,000pcs per cycle (4weeks)
   7.3, Baby leafy can grow 6192pcs per cycle (4weeks)
8. OPCOM Wave design, daily shine around 30mins can speed up growth 20%.
9. Special Photocatalysis-coat design to stop moss algae growing on the machine, which can keep the water pipes clean and help plants grow better.
10. OPCOM cloud data analysis, thru algorithm exactly control plants each stage grow data to give plants good care.

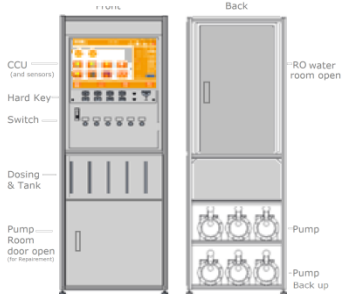
	OFC408L8-SD	Specification
Planting amount	Leaf seedling (3cm * 3cm): 759pcs / Panel * 8Layer * 18 sets	109,296pcs / Cycle(2W) 218,592pcs / Month
	Vine seedling (5cm * 5cm): 280pcs/panel * 8Layer * 18 sets	40,320pcs / Cycle (4W)
	Leafy (10cm*12cm) 43pcs/panel * 8Layer * 18 sets	6,192pcs / Cycle (4W)
	Planting area: 0.7m * 1m * 8Layer * 18 sets	100 m^2
Power Consumption (AVG/Day)	220V+/-10%	Auto: 232KWH #1 Max: 265KWH #2 Min.: 132KWH #3
LED	7800W	>150 umol / m^2 / s @ 5cm
Air	Air Condition	5P
	Fan	5pcs
	Air Sensor	2 IN 1 Sensor (Temp. + Hum) 3 IN 1 Sensor (Temp. + Hum+ Co2)
	CO_2 Generator	1pcs
Water	Water Tank	1.1t
	Nutrient Tank	1.1t
	Water cooler	3.5P
	Pumping motor	0.375kw
	Nutrient tank	<505ml / min / 6-16w
	RO filtered water	300 gallon / day (option)
	EC/pH/ water level sensor	EC / pH /Level meter by Auto test
Equipment	PTZ OPCOM Growth Wave Camera	22X x 4pcs
	stabilizer	30KVA
	container	40' HC
	weight	8 ton

TOFC408L8 40ft. AI Seedling Container

Placement







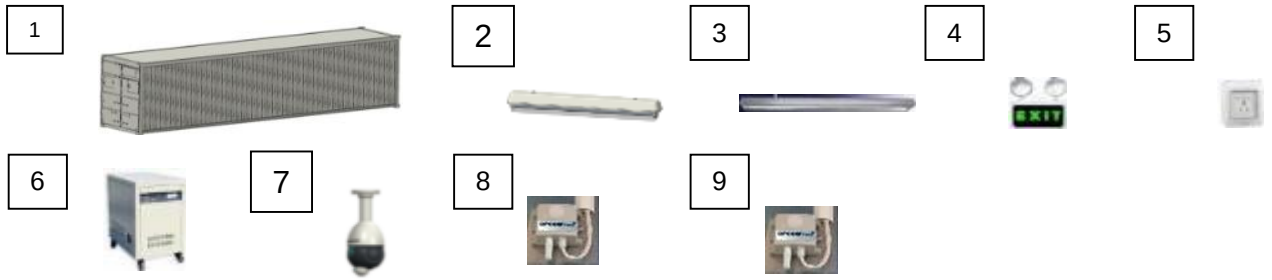
Master Station

IPC 21" Touch Screen with App CCU Board with Wi-Fi & LoRa
Environment control
5 in 1 Auto Nutrition Dosing
RO Water
Generator
Pump*6
UPS

TOFC408L8 40ft. AI Seedling Container
Equipment List

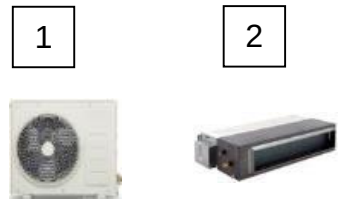
	Item	OFC408L3	Quantity
Container	1	40' HC	1
	2	UV Lights	3
	3	Indoor Lights	2
	4	Emergency Light	1
	5	Extension Socket	1
	6	Voltage Stabilizer(30KVA)	1
	7	PTZ OPCOM Growth Wave Camera-22X	4
	8	2 IN 1 Sensor (Temp. + Hum)	6
	9	3 IN 1 Sensor (Temp. + Hum+CO_2)	1
Air Shower	1	AC 220v – For One Person	1
Air Conditioner	1	5P Air Conditioning Outdoor Unit	1
	2	Air Conditioning Indoor Unit	1
Master Station	1	Distribution box	1
	2	EC/pH Detector sensor	1
	3	RO Water Filter	1
	4	5 in 1 Dosing + Dosing motor	5
	5	NT Pump	2
	6	Fresh Water Pump	2
	7	Water Return Pump	2
	8	Sprayer Pump	2
Planting Rack	1	750mm * 3010mm * 2450mm	6
	2	Grow Light	192
	3	Sprayer	240
	4	Planting tray - (70*100cm)	144
	5	Water Tank (Around 1 Ton)	1
	6	Nutrient Water Tank	2
Optional	1	Water Chiller	1
	2	Water Heater	1
	3	10" touch screen CCU	1
	4	OPCOM Camera Wave Module	4
	5	16 Channel NVR	1
	6	CO_2 Generator	1

Container

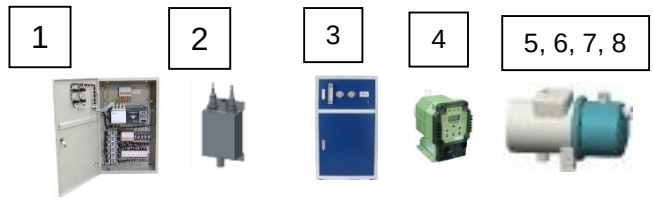


Air Shower

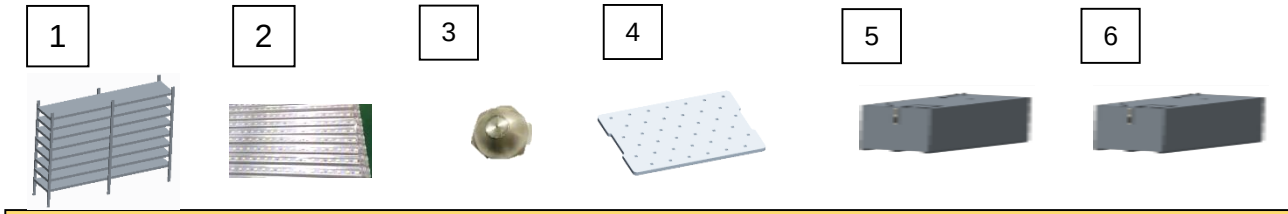
Air Conditioner



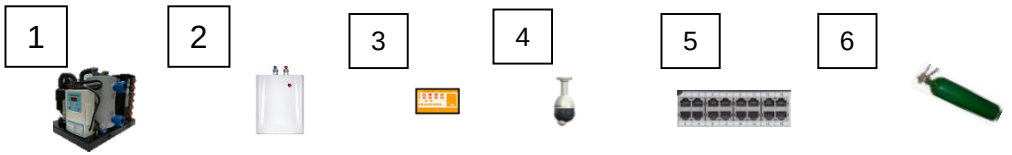
Master Station



Planting Rack



Optional



Postadress:
TRÄDGÅRDSTEKNIK AB
Helsingborgsvägen 578, Varalöv
262 96 ÄNGELHOLM

Telefon : 0431-222 90
Bg.nr : 5743-7980
Org.nr : 556409-6120

URL:
www.tradgardsteknik.se
E-postadress:
info@tradgardsteknik.se