



*Your Reliable Power Partner*



# **System Power Solution**

*Integrating Digital Rack Power, Charger and Controller  
for Industrial Applications*

**Taiwan (Headquarters)**

**MEAN WELL ENTERPRISES CO., LTD.**

Tel +886-2-2299-6100(rep.) e-mail [info@meanwell.com](mailto:info@meanwell.com)

**U.S.A. (California)**

**MEAN WELL USA, INC.**

Tel +1-510-683-8886 e-mail [info@meanwellusa.com](mailto:info@meanwellusa.com)

**Europe (The Netherlands)**

**MEAN WELL EUROPE N.V.**

Tel +31-20-758-6000 e-mail [info@meanwell.eu](mailto:info@meanwell.eu)

**China**

**MEAN WELL (GUANGZHOU) ELECTRONICS CO., LTD.**

Tel +86-20-3773-7100 / 400-800-3608(sales)

e-mail [info@meanwell.com.cn](mailto:info@meanwell.com.cn)

**SUZHOU MEAN WELL TECHNOLOGY CO., LTD.**

Tel +86-512-6508-8600 e-mail [info@meanwell.cc](mailto:info@meanwell.cc)

**Asia**

**MEAN WELL MALAYSIA SDN.BHD.**

Tel +603-8070-8120 e-mail [wswong@meanwellasean.com](mailto:wswong@meanwellasean.com)

**MEAN WELL INDIA ELECTRONICS PRIVATE LIMITED**

Tel +91-9686-448906 e-mail [info@meanwellindia.com](mailto:info@meanwellindia.com)

**MEAN WELL SINGAPORE PTE. LTD.**

Tel +886-2-2299-6100 etc.864 e-mail [info@meanwell.com](mailto:info@meanwell.com)

**MEAN WELL (HONG KONG) HOLDING LIMITED**

Tel +852-2643-9098 e-mail [vickiho@meanwell.com.hk](mailto:vickiho@meanwell.com.hk)



# Concept

Possess the benefits to provide flexible solutions, time to market, fast delivery, high cost performance ratio and high reliability, MEAN WELL System Power Solution is now ready to power up your business in multiple industries and diversified applications!



Power Module

+



Power Shelf

+



Power Controller

+



19" Rack Cabinet

## Easy Power Management with Human Machine Interface

MEAN WELL presents the 「CMU2 Digital Master Controller」 to help users manage their power systems with ease. CMU2 supports the CANbus, PMBus, and RS-485/232 communication protocols and it can connect to slave devices such as power supplies, sensors, lighting fixtures and more via wired or wireless network.



▲ CMU2C-R

### Features of CMU2

- 7" LCD touch panel in both rackmount and standalone versions
- Easy-to-use dial and push buttons (rackmount edition only)
- 3 expansion cards for wired/wireless connection with slave devices
- Control/monitor up to 64 devices and more with expansion cards
- RS-232, RJ45 and USB serial ports for easy wiring
- MicroSD card to save event logs
- Management tool can be accessed via PC/web/handheld-based devices
- 5 years warranty

### Web-based GUI



## System Power Solution for Multiple Industries



# Combination Demonstration

**PowerNex Accessories**

-  1U/2U/3U Blank Panel  
Part No. : RA9AQ
-  1U/2U/3U Vent Panel  
Part No. : RA9AR
-  Support Angle  
Part No. : RA27904
-  Support Plate  
Part No. : RAF9AH01
-  19" Rack Cabinet  
Part No. : RA-\*\*U-750

**2 DHP-1UT-B**



**3 NCP-3200 Series**



**6 ERG-5000 Series**



**7 NTN-5K Series**




UPS Backup System

Energy Burn-i

Cabinet	Model No.	RA-15U-750
	Height (U)	15
	Dimensions (LxWxH)	750x 600x 912 mm
Power Controller	Recommend Model	
Power Shelf	Recommend 1U Model	
Power Module	Recommend 2U Model	
Bidirectional Power Supply	Recommend 1U Model	
Grid Type Inverter	Recommend 2U Model	
Off-Grid Type Inverter	Recommend 2U Model	
Max. Number of Installations (Unit) (with Controller )	1U Model	40
	2U Model	5
Max. Output Power (KW) (Product Rated Power x Maximum Number of Installations)	1U Model	128
	2U Model	150
Application	Energy control system, Battery power re	

**Note:** We value the information accuracy, if there's any discrepancy

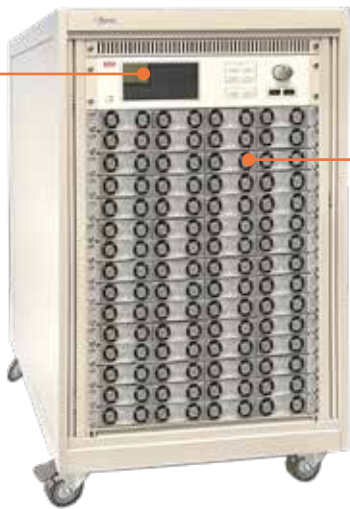
**1 CMU2C-R/CMU2A-R/CMU2E**



**5 BIC-2200 Series**



**4 SHP-30K Series**



Energy Saving  
in System

**Bidirectional System Power**

**Programmable DC System Power**

**RA-22U-750**

**RA-30U-750**

22

30

750x 600x 1224 mm

750x 600x 1579 mm

**1** CMU2C-R / CMU2A-R / CMU2E

**2** DHP-1UT-B (NCP-3200 series only)

**3** NCP-3200 series

**4** SHP-30K series

**5** BIC-2200 series

**6** ERG-5000 series

**7** NTN-5K series

72

100

8

12

230

320

240

360

recycling system, Burn-in power recycling system, industrial power system and others.

between the data presented in our brochure and the specification, the specification shall prevail. (Please refer to [www.meanwell.com](http://www.meanwell.com) for the latest spec.).



# Advantages

## Smart Rack Power Solution in Digitalized Design

### Remote ON/OFF

This signal allows user to turn on/off power modules all at once or one by one.

### Output Programmable Function

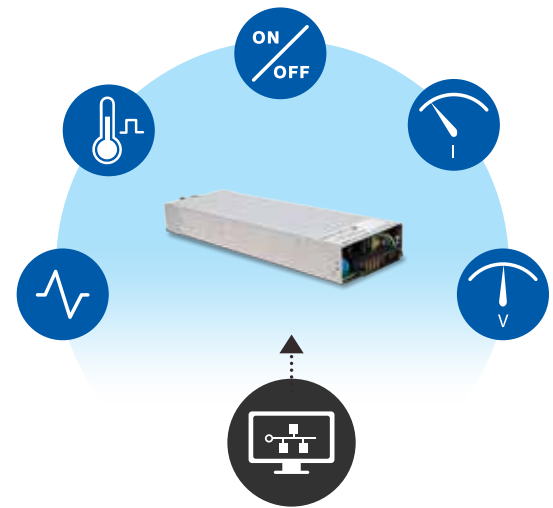
By using external DC signal, output voltage (PV) and constant current limit (PC) can be tuned up or down according to end user's need.

### T-alarm

PSU sends out TTL signal to warn probable over-heating event.

### Intelligent Control

Featuring multiple I/O signals, programmable outputs and communication to enable easy and smart monitor and control from power supply to the entire power system.



## Power Supply in Modular Design

Rack power/charger use connector as interface to fit power modules into power shelf which realizes the key function of "hot swap" and enables power system with flexibility to promptly enlarge output power for future needs.

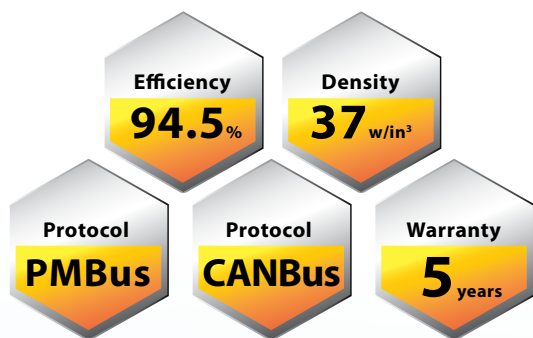
## Upgradable and Redundant Power Solution in Building Block Design

Configure power shelves in parallel connection, the total output power can be multiplied and upgradable. Or configure solutions with back-up power in N+1 redundancy. Using off-the-shelf 3200w digitalized power module as the base, MEAN WELL successfully creates a wide range of solutions from 3200w up to 128KW.



# The Core of Digital System Power Solution

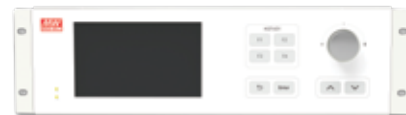
Rack Power NCP-3200 Series + Digital Controller CMU2 Series



## Rack Controller

### CMU2C-R

L147.5x W127x H41(1U) mm



## Power Shelf

### DHP-1UT-B (HV)

L400x W440x H44mm



## Rack Power/Charger

### NCP-3200

L325.8x W107x H41(1U) mm



## Features



### Power Supply Mode

- Programmable Outputs, PV & PC functions
- Built-in OR-ing FETs to support hot swap
- Active current sharing
- Built-in DC fans forced air cooling
- Protections: Short circuit, over voltage & over temp.
- Optional conformal coating

### Battery Charger Mode

- Charge lead-acid (Gel, Flooded & AGM) and Li-Ion batteries
- Built-in 3 three-stage charging curves and 1 programmable curve
- Protections: Battery under voltage, Battery no connection

Model No.	Vin	Output	Efficiency
NCP-3200-24	90~264VAC	24V, 0~133A	93.5%
NCP-3200-48	90~264VAC	48V, 0~67A	94.5%
NCP-3200-380	90~264VAC	380V, 0~9.6A	94%

Model No.	Vin	Output	Efficiency
NCP-3200-24	90~264VAC	28.8V, 0~110A	93.5%
NCP-3200-48	90~264VAC	57.6V, 0~55A	94.5%



## 5KW Off-Grid Industrial Grade



# NTN-5K SERIES

## 2-in-1 Charging Inverter

- Multi-functional All-in-One device  
(AC-DC Charger + DC-AC Inverter for Load + AC Bypass for Load)
- Built-in AC-DC high power charger up to 4520W
- DC-AC pure sine wave output (THD<3%)
- Instantaneous peak power of up to 10KW for AC output
- Up to 6 units of AC output can be paralleled, expanding wattage up to 30KW (5+1 units)
- Utilizes 3 NTN-5K unidirectional AC outputs, configurable for 3Ø4W usage
- -30~+70°C ultra-wide temperature range, suitable for global deployment or installation in enclosed environments
- Built-in remote ON/OFF control
- Protections:
  - DC input:** Reverse Polarity, Low Voltage Warning and Shutdown, Over Voltage, Battery Over Discharge
  - AC output:** Short Circuit, Overload, Over Temperature
- Built-in Modbus or CAN bus communication monitoring
- Optional intelligent controllers available for purchase: CMU2E (Stand-Alone Vertical Mounting / Rail Mounting) or CMU2E-R (Rack System Installation)
- Dimensions (L x W x H): 460 x 211 x 83.5mm
- PCB coating for basic moisture / dust / dirt protection
- Certifications: CB / TUV / RCM / EAC / CE / UKCA / FCC
- Compatible with lead acid or lithium batteries
- 5 years warranty

### HEADQUARTERS (Taiwan)

- 🏠 [www.meanwell.com.tw](http://www.meanwell.com.tw)
- ☎ +886-2-2299-6100
- ✉ [info@meanwell.com](mailto:info@meanwell.com)

### MEAN WELL USA

- 🏠 [www.meanwellusa.com](http://www.meanwellusa.com)
- ☎ +1-510-683-8886
- ✉ [info@meanwellusa.com](mailto:info@meanwellusa.com)

### MEAN WELL EUROPE

- 🏠 [www.meanwell.eu](http://www.meanwell.eu)
- ☎ +31-20-758-6000
- ✉ [info@meanwell.eu](mailto:info@meanwell.eu)



SPEC.



# System Configuration

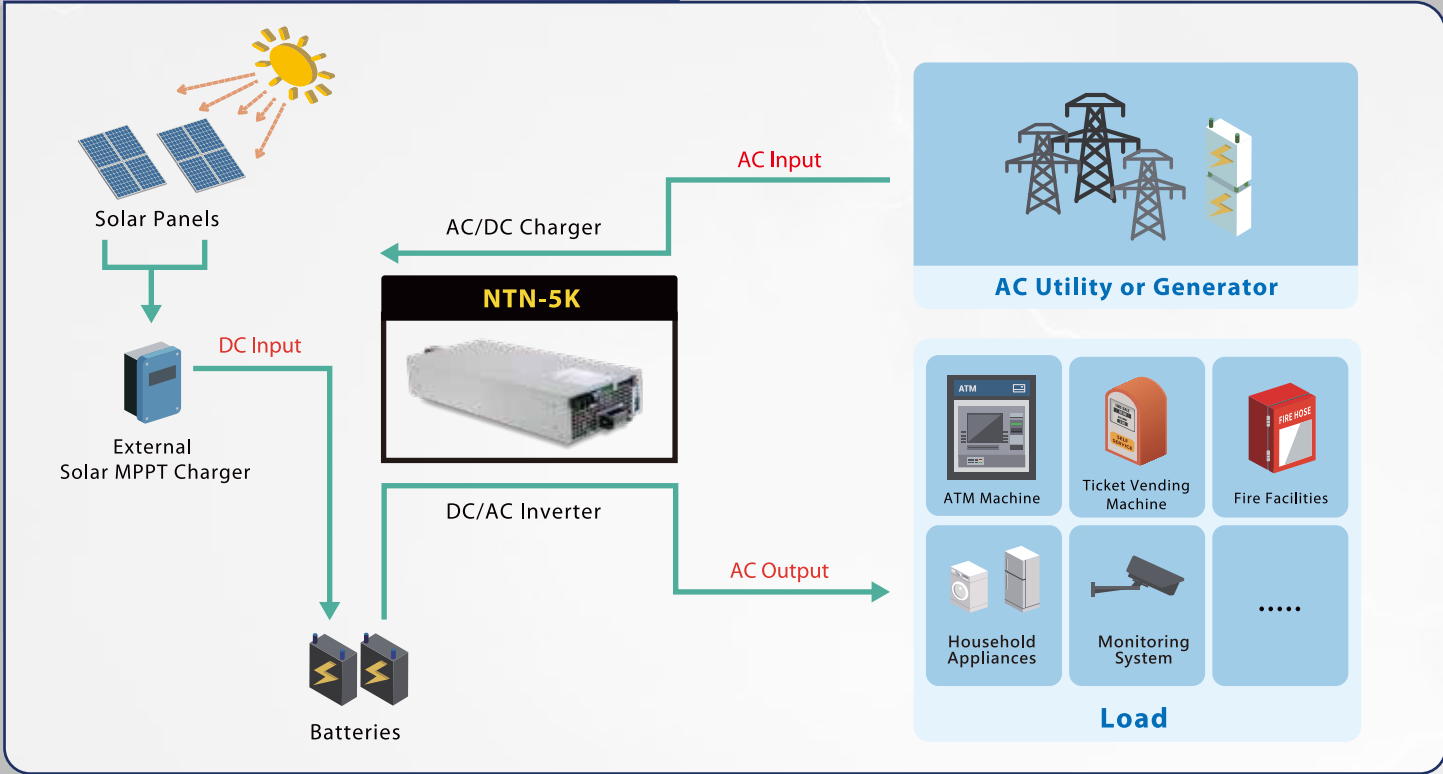


BS EN/EN62368-1

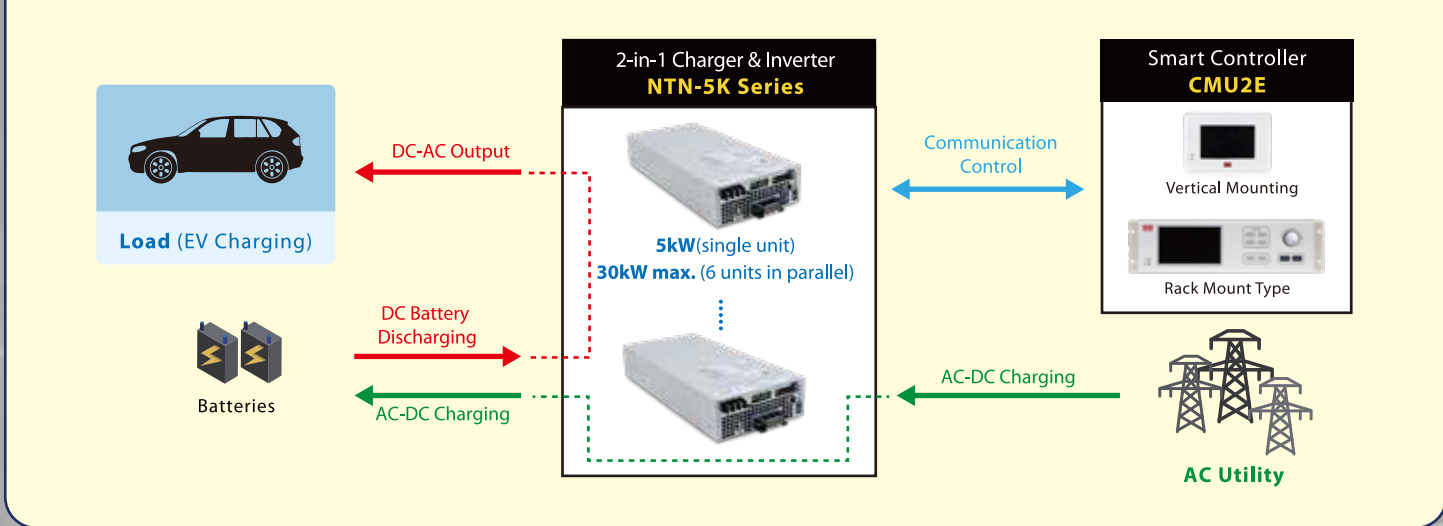
IEC62368-1

AS/NZS 62368.1

TPTC004



# Mobile Application: EV Charging Roadside Assistance

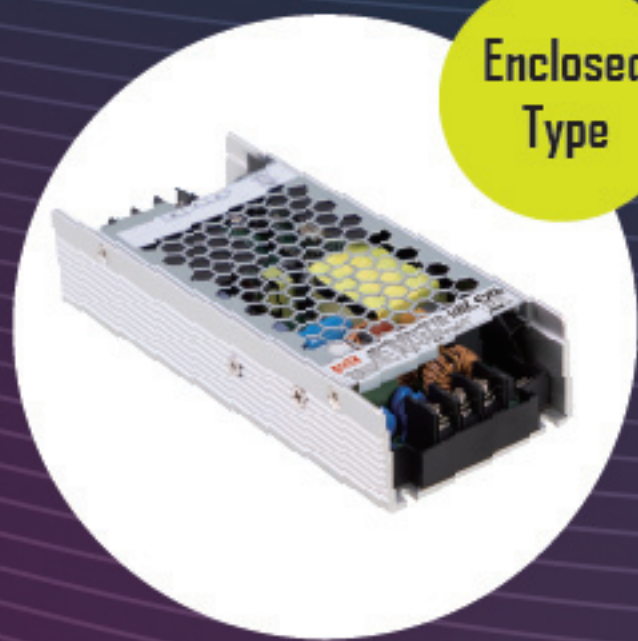




# VFD

## Variable Frequency Drive Module

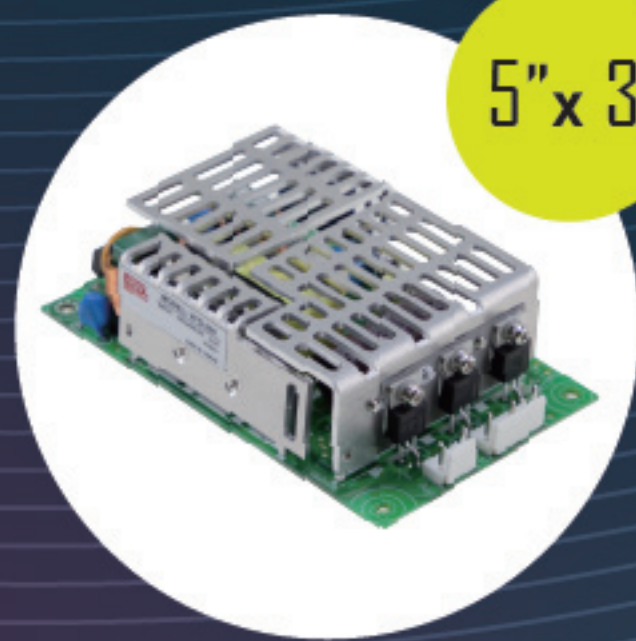
VFD-200C-230  
VFD-350C-230  
VFD-750C-230



Enclosed  
Type

**Universal AC Input  
with PFC**  
Suitable for  
3  $\phi$  200V~240V Motor

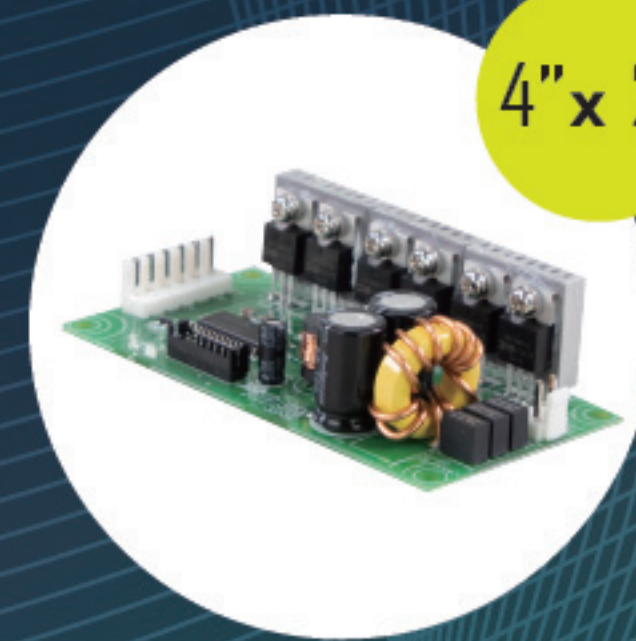
VFD-250P-230  
VFD-350P-230



5" x 3"

**Universal AC Input  
with PFC**  
Suitable for  
3  $\phi$  200V~240V Motor

VFD-150P-48  
VFD-250P-48  
VFD-350P-48



4" x 2"

**SELV DC Input**  
Suitable for  
3  $\phi$  48V Motor



Fanless  
Design  
**0** noise



High Efficiency  
up to  
**93%**



Providing  
**200%**  
peak current

MEAN WELL has launched a new product line : the "VFD" series which are industrial brushless DC motor variable frequency drive module. This series includes multiple models, power ranging from 150W to 750W, covering both DC and AC input voltages, as well as two types of form factor including PCB board and semi-potted chassis types for selection. The AC input models has built-in PFC function with universal AC input voltage range. All models are equipped with standard hardware control and sensor signals interfaces enabling external control with PWM signal for various motor and speed control applications.



MEAN WELL ENTERPRISES CO., LTD.

[www.meanwell.com](http://www.meanwell.com)

+886-2-2299-6100

[info@meanwell.com](mailto:info@meanwell.com)



Specification



Website





# High Voltage DC (HVDC) Output 115/230/380V DC Power Supply Solutions

As applications of green energy and industrial products become more diversified, related products integrate various high voltage direct current (HVDC) applications directly, such as electrolysis, charging energy storage equipment, UV curing or laser applications to improve product performance and eliminate or reduce unnecessary power conversion losses. More and more industrial products use DC voltages greater than 60V. MEAN WELL has continued to develop a variety of high-voltage output power products, and continues to provide standard power supplies for green energy industries and industrial-grade equipment.

MEAN WELL also provides a variety of cooling methods according to the application requirements of industrial equipment. These include conduction cooling, water cooling and forced air cooling, all designed to offer customers convenience to accomplish overall planning with system equipment. In addition, the input voltage provide single-phase or three-phase input (AC) voltage, and the output includes three different high-voltage DC, 115V, 230V and 380V, this provides customers with a various selection of high-voltage choices. Moreover, programmable output voltage current and digital communications interface (CANbus/PMBus/MODbus) also helps customer when dealing with system integration or system automation.

## Single-phase/Three-phase AC input, multi-industrial applications

Provides single-phase and three-phase three-wire or three-phase four-wire AC power supply applications, and a variety of standard power supplies with high-voltage DC output, which can meet the application possibilities for multiple industries.



## Low profile, compact design

Miniaturized design, mechanism height <2U 88.9 mm, which is convenient for integrating the power supply into the system.



## Parallel function to extend wattage

Models above 3000W provide parallel function, which can be extended in parallel according to equipment load requirements, with a maximum parallel wattage up to 128kW.



## Digital communication interface

In addition to programmable adjustment to the output voltage and current, many models also provide digital communication interfaces, such as CANBus, PMBus, MODBus, which are more convenient for digital integration between the power supply and system.



### HEADQUARTERS

[www.meanwell.com](http://www.meanwell.com)  
 +886-2-2299-6100  
 [info@meanwell.com](mailto:info@meanwell.com)

### USA

[www.meanwellusa.com](http://www.meanwellusa.com)  
 +1-510-683-8886  
 [info@meanwellusa.com](mailto:info@meanwellusa.com)

### EUROPE

[www.meanwell.eu](http://www.meanwell.eu)  
 +31-20-758-6000  
 [info@meanwell.eu](mailto:info@meanwell.eu)



# Selection Guide

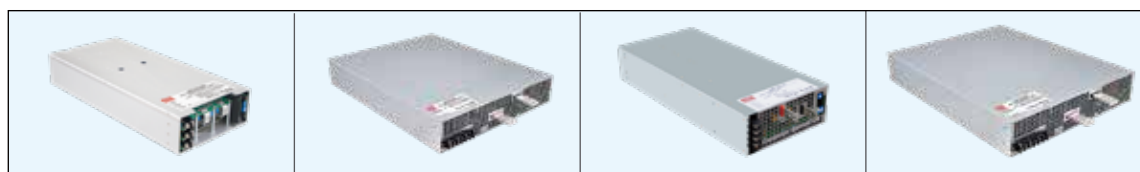


Single-phase AC input / HVDC output series



Series	UHP-1500-HV	HEP-2300-HV	PHP-3500-HV	CSP-3000	NCP-3200
Input Voltage	90~264V AC	90~305V AC	90~264V AC	180~264V AC	90~264V AC
Output Voltage	115V / 230V / 380V			120V / 250V / 400V	380V
Parallel Function	N/A			3 units (9000W Max.)	40 units (128kW Max.)
Heat Dissipation	Fanless design, conduction cooling		Fanless design, conduction and water cooling	Built-in fan cooling	
Efficiency	95.5%		96%	93%	94%
Programming Function	PV: Voltage adjustable (50%~120%) PC: Current adjustable (20%~100%)			PV: (20%~120%) PC: (20%~100%)	PV: (50%~120%) PC: (20%~100%)
Digital Communication interface	CANBus / PMBus / MODBus			N/A	CANBus / PMBus
Dimension (L x W x H)	290x 140x 41 mm	375x 280x 88 mm	380x 141x 60 mm	278x 177.8x 63.5 mm	325.8x 107x 41 mm
Waterproof Level	Semi-Potting	IP67	N/A		
Warranty	5 years			3 years	5 years
Applications	· DC centralized bus · Lighting	· Electrolysis equipment · Outdoor telecom equipment	· Laser cutting · Charging equipment	· UV curing equipment · Any indoor equipment	· Data center · Charging system

Three-phase AC input / HVDC output series



Series	RST-7K5	RST-15K	SHP-10K	SHP-30K
Input Voltage	3Ø3W/3Ø4W (196~305V AC Phase Voltage)		3Ø3W (340~530V AC)	
Output Voltage	115V/230V/380V DC			
Parallel Function	4 unit. (30kW Max.)	2 unit. (30kW Max.)	4 units (40kW Max.)	12 units (300kW Max.)
Heat Dissipation	Built-in fan cooling, watercooling	Built-in fan cooling	Built-in cooling fan, watercooling	Built-in fan cooling
Efficiency	95%	94.5%	96.5%	97%
Programming Function	PV: Voltage adjustable (1%~120%) PC: Current adjustable (20%~100%)		PV: Voltage adjustable (50%~120%) PC: Current adjustable (20%~100%)	
Digital Communication interface	N/A		CANBus / PMBus / MODBus	
Dimension (L x W x H)	460x211x83.5 mm (Fan type) 460x216x83.5 mm (Watercooling)	540x 424x 83.5 mm	460x211x83.5 mm (Fan type) 460x216x83.5 mm (Watercooling)	540x 424x 83.5 mm
Warranty	5 years			
Applications	DC Centralized bus, Electrolysis system, Charging and battery storage system, Laser cutting, UV curing equipment			





Your Configurable Power Solution,  
**RIGHT AWAY!**



NMP Series

UMP Series

# NMP/UMP Series

## Medical & Industrial Configurable Power Solution

- Flexible output configuration with millions of possible combinations
- 1U low profile
- Universal AC input / Full range
- Protections: Short circuit / Overload / Overvoltage / Over temperature
- Safety approval:

**NMP** Medical (60601-1) and ITE (62368-1) dual safety approval

**UMP** ITE (62368-1) safety approval; design refer to medical (60601-1) safety standard

**MEAN WELL ENTERPRISES CO., LTD.**

[www.meanwell.com](http://www.meanwell.com)

+886-2-2299-6100

[info@meanwell.com](mailto:info@meanwell.com)



LINKEDIN



VIDEO



# DALI Digital Lighting & B.A. System Solutions

