# DIGITUS<sup>®</sup>/

# **UPS BATTERY MODULE**



Manual DN-170108 Rev.2

# IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

This manual contains important instructions that you should follow during installation and maintenance of the Extended Battery Pack (EPB). Please read all instructions before operating the equipment and save this manual for future reference. Only qualified service personnel with knowledge of batteries and the required precautions should perform servicing.



Batteries present a risk of electrical shock or burn from high short-circuit current.

The EBP **LETHAL VOLTAGES** and has its own energy source (batteries) that will carry live voltage even when not connected to a source of power. Batteries also pose a danger due leakage of hazardous chemicals.

- Remove watches, rings, or other metal objects
- Use tools with insulated handles.
- Wear protective glasses, gloves and boots.
- Do not lay tools or other metal parts on top of batteries.
- Keep unauthorized personnel away from batteries.

Failure to follow these instructions will result in death or serious injury.



Batteries may explode when exposed to open flame.

- Keep sparks and flames away from the batteries.
- Never dispose of batteries in a fire.
- Proper disposal of batteries is required.
- Refer to local codes for disposal requirements.

Failure to follow these instructions will result in death or serious injury



**WARNING** To reduce the risk of fire or electric shock:

- Install or service the EBP in a temperature and humidity controlled, indoor environment, free of conductive contaminants.
- Ambient temperature must not exceed 40°C (104°F).
- Do not operate near water or excessive humidity (90% maximum).
- Over current protection and disconnect switch must be provided by others.
- Install the EBP so that all wiring is inaccessible to users.
- The maximum number of EBP(s) per UPS is four.
- Failure to follow these instructions may result in death or serious injury

#### **Technical Notice**

If the EBP requires any type of transportation, consult with the transport company and take the recommended precautions. Always disconnect batteries prior to transportation.

If the EBP must be stored, protect it from excessive humidity and heat.

The EBP should be mounted in an environment where the temperature is within the required specs. Temperature is a major factor in determining battery life and capacity. In a normal installation, the battery temperature is maintained between 15°C and 25°C. Keep batteries away from heat sources.

Typical battery performance data are quoted for an operating temperature between 20°C and 25°C. Operating it above this range will reduce the battery life while operation below this range will reduce the battery capacity.

An unused battery should be recharged every 6 months. Temporarily connect the EBP to AC supply and activate it for the time required for recharging the batteries

### 1. Design

6-10kVA Extended Battery Packs dimension is W443\*H131\*D585mm. It includes battery connection cables, breaker, terminal, etc, with max. capacity of 20pcs 12V/7Ah or 12V/9Ah batteries inside. The battery connection could be configured to output ±120V, two groups batteries connect in series as BAT+, BATN, BAT—.

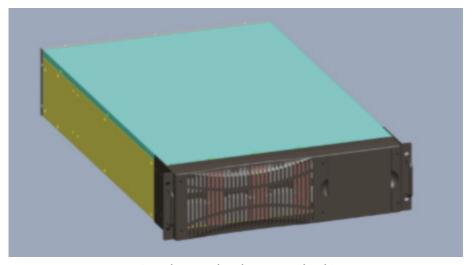


Fig.1 The complete battery pack cabinet

# 2. Assembly

#### 2.1 Dismount the cabinet shell

Put the battery pack on a level, take off the panel, remove the battery tray top covers and battery holder for easier battery installation and connection as shown in Fig.2 & Fig.3

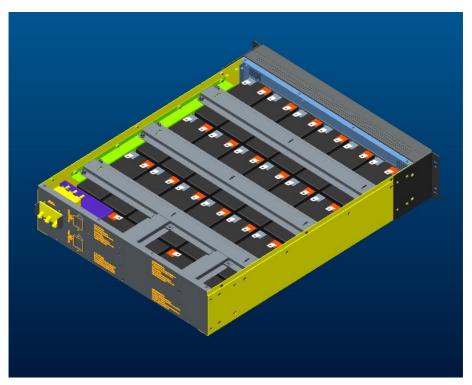


Fig.2

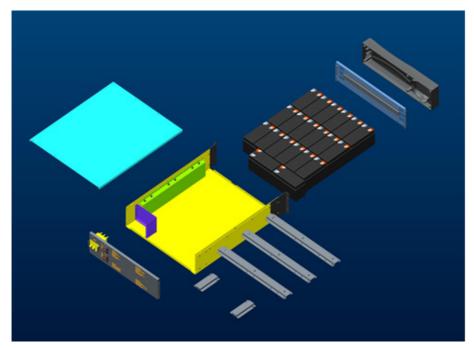


Fig.3

## 2.2 Battery installation and connection

Users need 20pcs batteries, divide into 2 groups. Each group has 10pcs batteries in series, as (BAT+, BATN, BAT-) shown below.

#### 2.2.1 Batteries installation and connection:

There have 20pcs batteries, then connect the batteries as shown in below pictures.

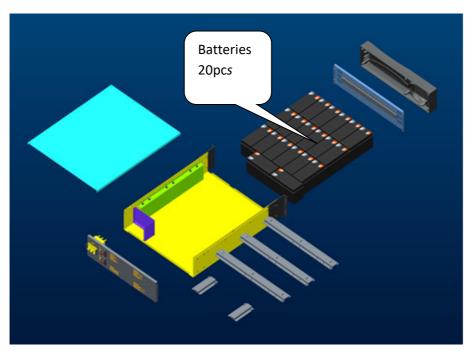


Fig. 4 (20pcs batteries installation)

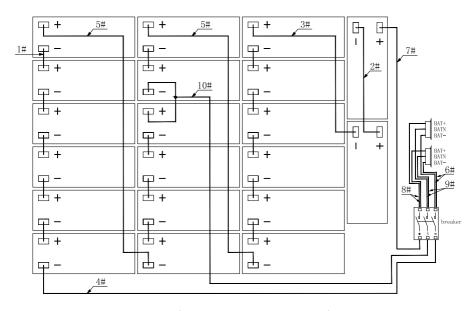


Fig. 5 (20pcs batteries connection)

#### 2.2.2 After the battery installation and connection done:

Check if BAT+ to N & N to BAT- voltages are correct with multimeter or other equipments. Install the cover if the voltages are correct.

**NOTE:** Battery "+" "-" poles cannot be reversed, also cannot short the battery "+" "-" poles, otherwise batteries would be damaged or other accidents would happen. Don't touch the battery "+" "-" poles at the same time. It's better only single man make the operation.

### 3. Battery pack accessories

A complete of 6-10kVA UPS battery pack includes below accessories.

No.	Name	Specification	PCS
1	Cable 1#	Black wire 1015 10AWG 101mm 250TC*2	14
2	Cable 2#	Black wire 1015 10AWG 250mm 250TC*2	1
3	Cable 3#	Black wire 1015 10AWG 420mm 250TC*2	1
4	Cable 4#	Black wire 1015 10AWG 600mm 250TC+OI5.5-5	1
5	Cable 5#	Black wire 1015 10AWG 650mm 250TC*2	2
6	Cable 6#	4wires black 1015 12AWG 150mm*2/200mm*2 OI14-5+P30*4	1
7	Cable 7#	Red wire 1015 10AWG 550mm 250TC+OI5.5-5	1
8	Cable 8#	4wires Red 1015 12AWG 150mm*2/200mm*2 OI14-5+P30*4	1
9	Cable 9#	4wires Yellow 1015 12AWG 150mm*2/200mm*2 OI14-5+P30*4	1
10	Cable 10#	2wires black 1015 10AWG 410/100mm*2 250TC*2+BN8+ OI5.5-5	1
11	Breaker	IELHK111-71333-1-V 3P 50A/300Vdc 2KA AIRPAX UL certified	1
12	Battery Pack	W443*H131*D585mm	1

#### 4. Disclaimer

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