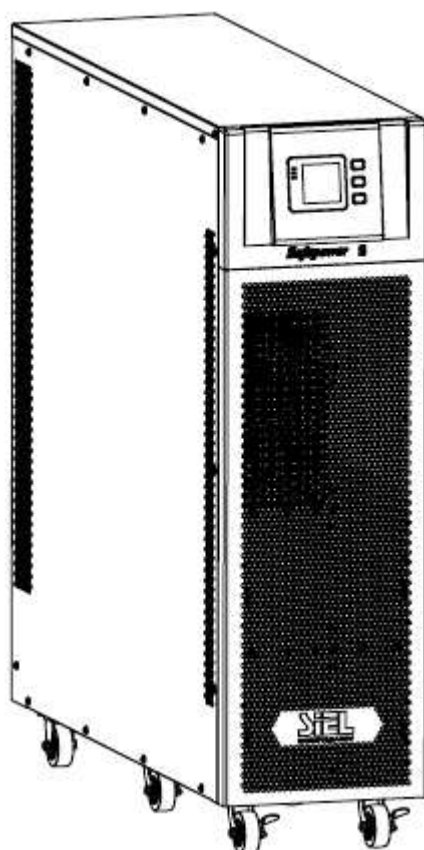


## 10-40kVA battery cabinet

# INSTALLATION AND USER MANUAL SAFEPOWER S



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### **Battery box structure :**

The specification of YDC3300 three input three output series battery box is 250\*828\*868mm ( W\*D\*H ). The battery box with built-in battery cables, breaker, fuse and terminals can hold 80pcs of 12V/7AH or 12V/9AH batteries at most and the output voltage can be  $\pm 120V$  or  $\pm 240V$  by battery connection. four groups of batteries are connected in parallel for use, which consist of BAT+, N、BAT-. The following Fig.1 shows the overall chassis



Fig.1

## **2 . The battery box installation**

### **2.1 Remove the chassis shell**

Place the battery box; remove the top, front, left and right panels. Remove the right and left cover plate of the battery pack and the battery flapper to install the batteries conveniently. As Fig.2 shows

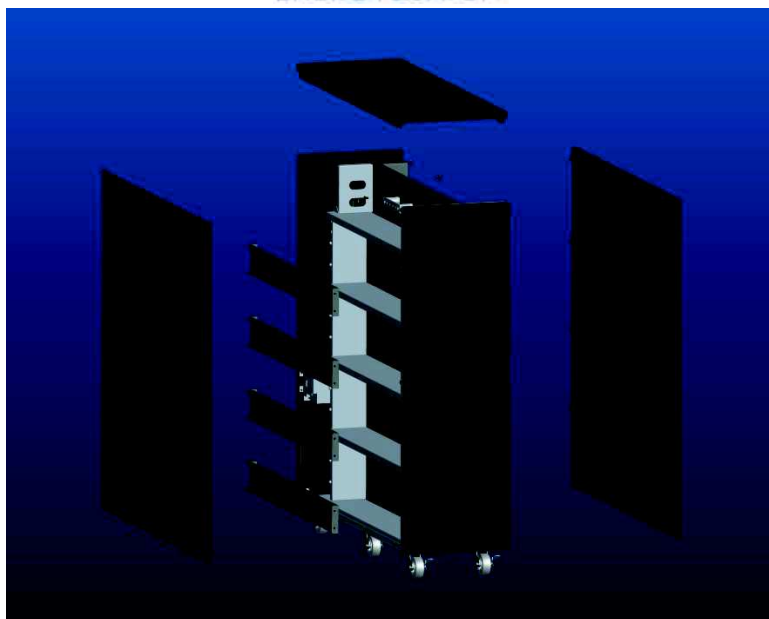


Fig.2

## 2.2 Battery installation and connection

40/60/80pcs of batteries can be selected to divide into two groups, three groups or four groups or four groups connected in parallel for use. Each group has 20pcs of batteries in series (BAT+, N and BAT-). Three modes of connection are as follows:

**2.2.1. 80pcs of batteries installation and connection** :Place the battery from the bottom to top one by one, and then connect the battery cables according to the wiring diagram as following

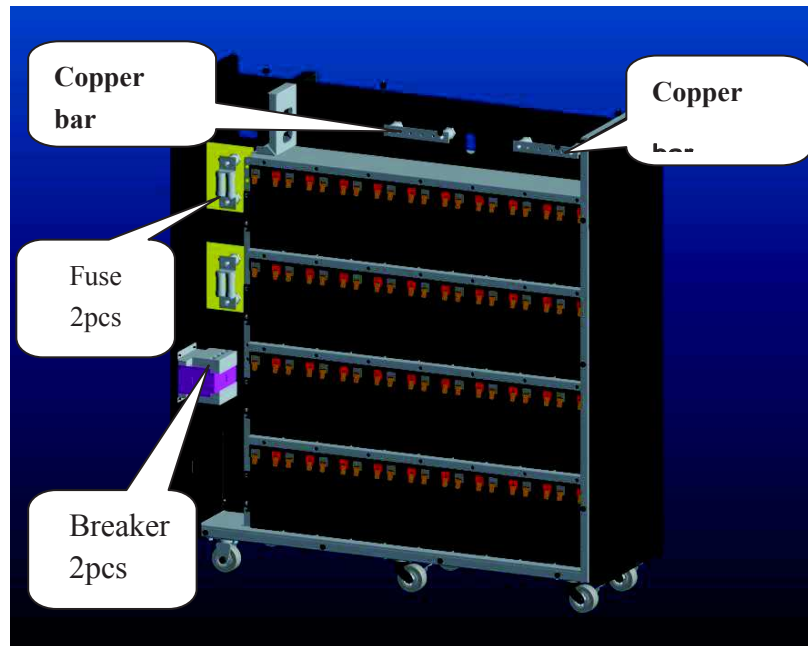


Fig.3 (Installation of 80pcs of batteries)

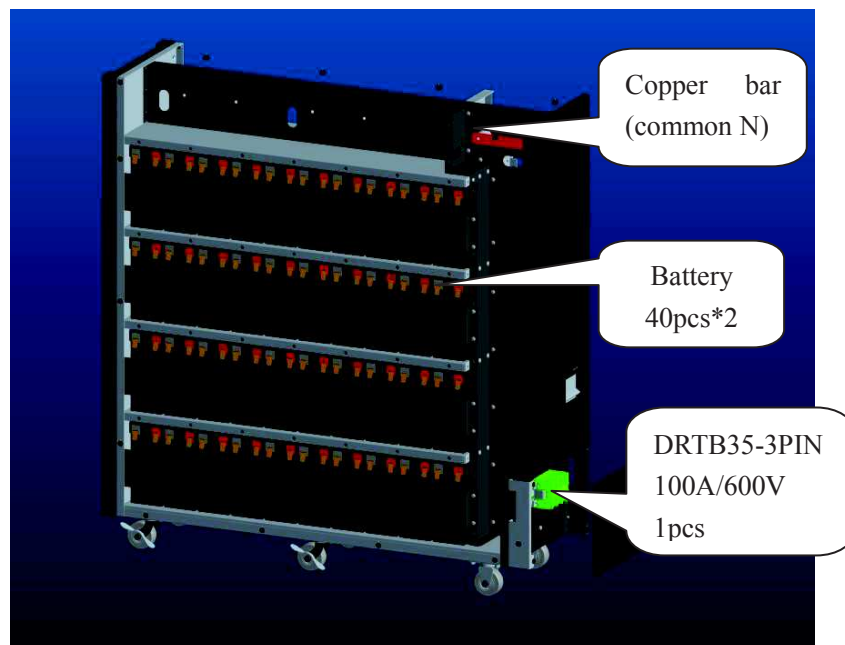
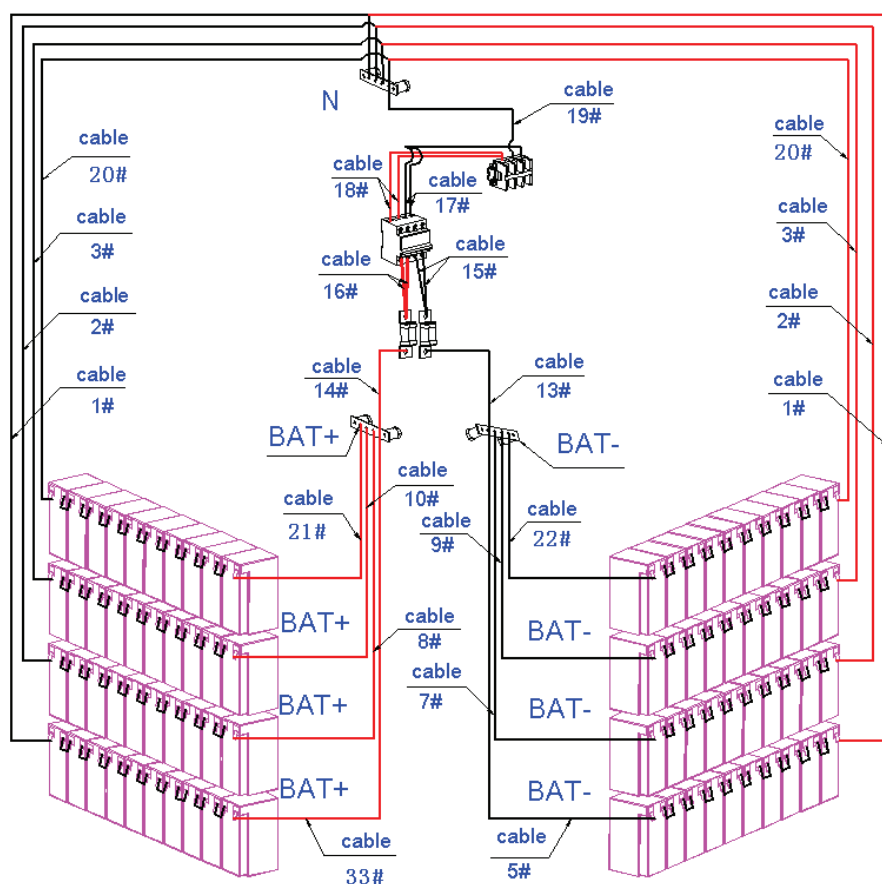
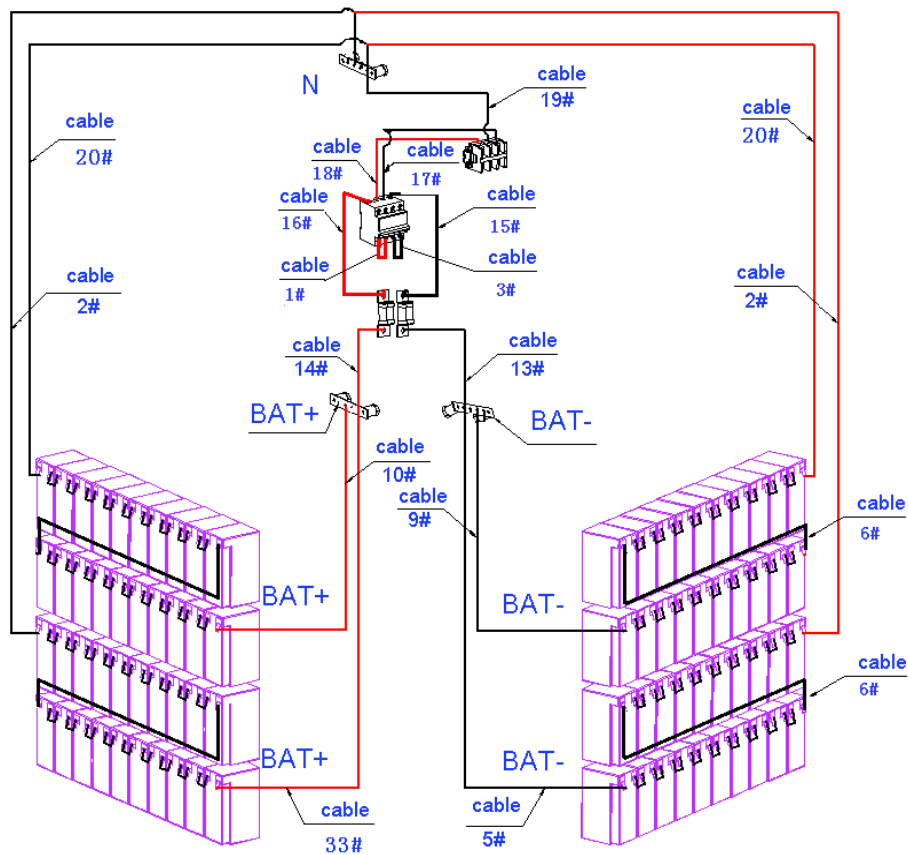


Figure 4 (Installation of 80pcs of batteries)



**Wiring diagram for 80pcs of batteries installation for (10-30kVA)**



**Wiring diagram for 80pcs of batteries installation (40kVA)**

**2.2.2.** 60pcs of batteries installation and connection :Place the battery from the bottom to top one by one, and then connect the battery cables according to the wiring diagram as following

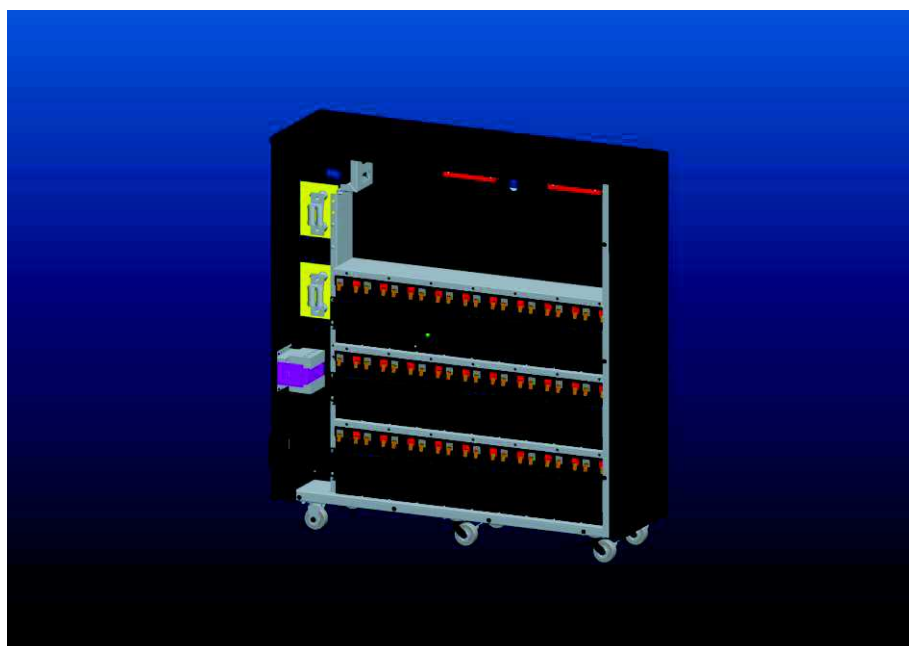
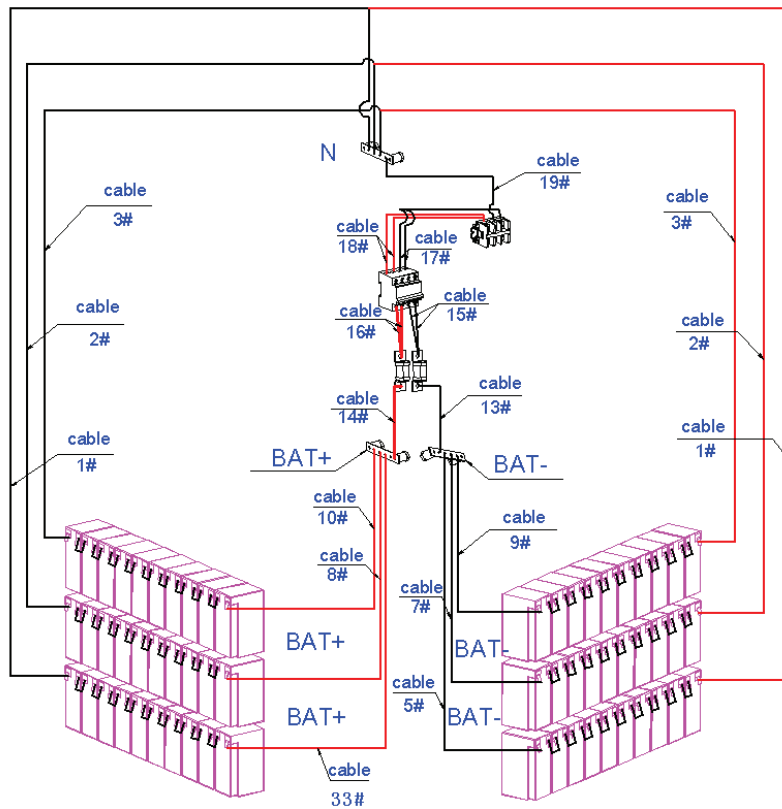




Fig5 (Installation of 60pcs of batteries)

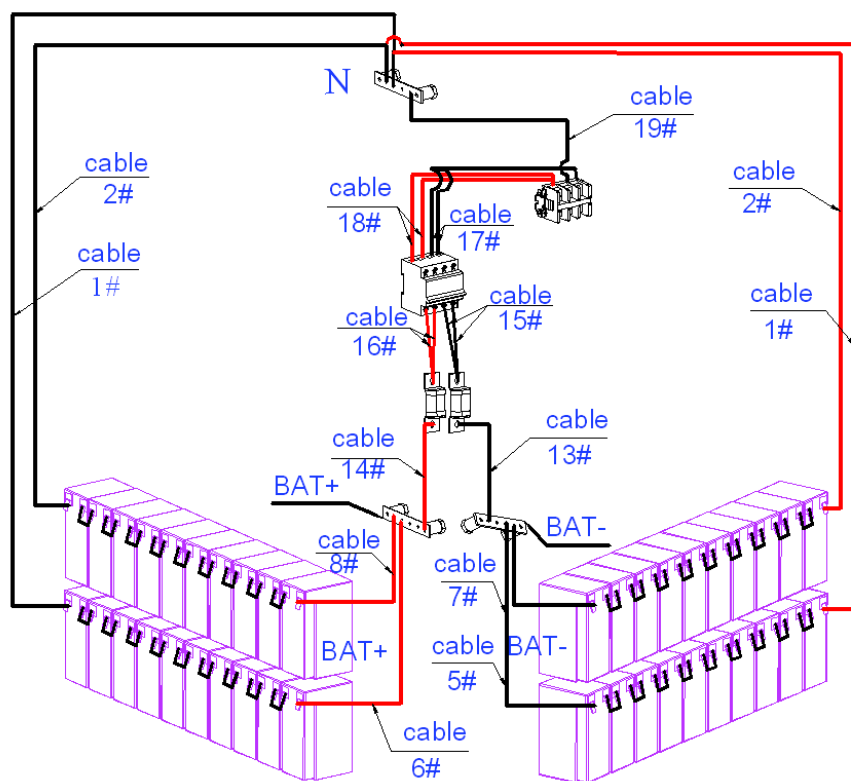


**Wiring diagram for 60pcs of batteries installation (10-30kVA)**

**2.2.3. 40pcs of batteries installation and connection** :Place the battery from the bottom to top one by one, and then connect the battery cables according to the wiring diagram as following



**Fig6 (Installation of 40pcs of batteries)**



**Wiring diagram for 40pcs of batteries installation (10-30kVA)**

**2.2.4.** When the battery installation and connection is completed, use a multi-meter or other instrument to check if the voltages between BAT+ and N, N and BAT- are normal. If normal, lock the chassis cover.

**Note :** The positive and negative of battery can not be reversed or short circuit, otherwise it will damage the battery or cause some accidents. Do not touch the battery positive and negative at the same time, try to realize the single-person operation. Before replacing or removing the batteries, please disconnect the breaker, pull up cell terminals and remove the screws of the copper bar. Or else, it may cause the accidents. The battery is installed for H UPS, 40pcs of batteries installation must be chosen.

### 3 . Parts list for battery box

YDC33 series 10-30kVA battery box contains the following materials :

No.	Name	Specification	PCS	No.	Name	Specification	PCS
1	Cable 1#	810mm ( blue )	1	2	Cable 1#	780mm ( blue )	1

3	Cable 2#	660mm ( blue )	1	4	Cable 2#	610mm ( blue )	1
5	Cable 3#	540mm ( blue )	1	6	Cable 3#	440mm ( blue )	1
7	Cable 20#	420mm ( blue )	1	8	Cable 20#	280mm ( blue )	1
9	Cable 5#	920mm ( black )	1	10	Cable 7#	760mm ( black )	1
11	Cable 9#	600mm ( black )	1	12	Cable 22#	440mm ( black )	1
13	Cable 8#	1000mm ( red )	1	14	Cable 10#	830mm ( red )	1
15	Cable 21#	660mm ( red )	1	16	Cable 33#	1170mm ( red )	1
17	Cable 13#	1120mm ( black )	1	18	Cable 14#	800mm ( red )	1
19	Cable 15#	480mm ( black )	1	20	Cable 16#	300mm ( red )	1
21	Cable 17#	160mm ( black )	1	22	Cable 18#	180mm ( red )	1
23	Cable 19#	660mm ( blue )	1	24	Cable 4#	101mm (black)	72
25	Line contact bank	DRTB35 100A/600V(10-20kVA)	1	26	Line contact bank	DRTB50 150A/600V(30kVA)	1
27	fuse	120FEE 120A/500VDC(10-20kVA)	2	28	fuse	200FEE 200A/500VDC(30kVA)	2
29	breaker	NDB2Z-63 C63/2P 63A/440VDC(10-20kVA)	2	30	breaker	NDM1-125C 4P 125A/400V 10KA (30kVA)	1

YDC33 series 40kVA battery box contains the following materials :

No.	Name	Specification	PCS	No.	Name	Specification	PCS
1	Cable 1#	120mm ( red )	1	2	Cable 2#	660mm ( blue )	1
3	Cable 3#	120mm ( red )	1	4	Cable 2#	610mm ( blue )	1
5	Cable 20#	420mm ( blue )	1	6	Cable 20#	280mm ( blue )	1

7	Cable 5#	920mm ( black )	1	8	Cable 6#	920mm ( black )	4
9	Cable 9#	600mm ( black )	1	10	Cable 10#	830mm ( red )	1
11	Cable 33#	1170mm ( red )	1	12	Cable 13#	1120mm ( black )	1
13	Cable 14#	800mm ( red )	1	14	Cable 15#	600mm ( black )	1
15	Cable 16#	420mm ( red )	1	16	Cable 17#	180mm ( black )	1
17	Cable 18#	180mm ( red )	1	18	Cable 19#	660mm ( blue )	1
19	Cable 4#	101mm (black)	72	20	Line contact bank	DRTB50 150A/600V(30kVA)	1
21	fuse	200FEE 200A/500VDC(3 0kVA)	2	22	breaker	NDM1-125C 4P 125 A/400V 10KA	1