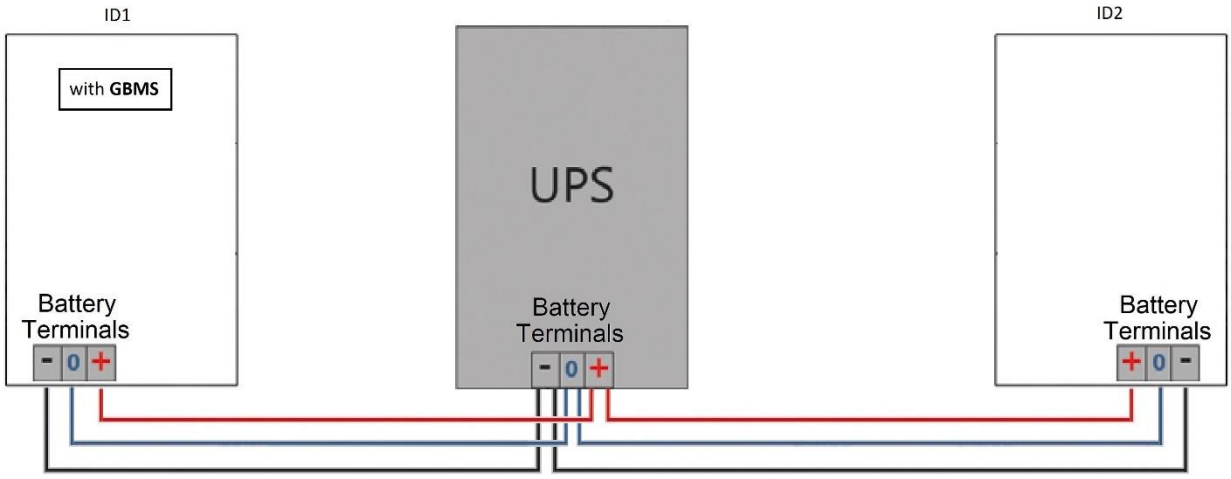
1 Installation of the lithium battery cabinet TP120

DANGER

Before carrying out any operation, it is mandatory to follow the instructions provided in the user manuals of the lithium battery cabinet.
This addendum includes additional information for the installation of the TP120 lithium battery cabinets to the Keor MOD UPS.
It is mandatory to contact the Legrand Technical Support Service for the configuration and commissioning of the Keor MOD system with TP120 lithium battery cabinets.

The TP120 battery cabinet is made up of 12 battery modules. The GBMS (Global BMS) is installed only in the master battery cabinet having ID = 1.
The following drawing shows the type of connection between the Keor MOD UPS and two battery cabinets:



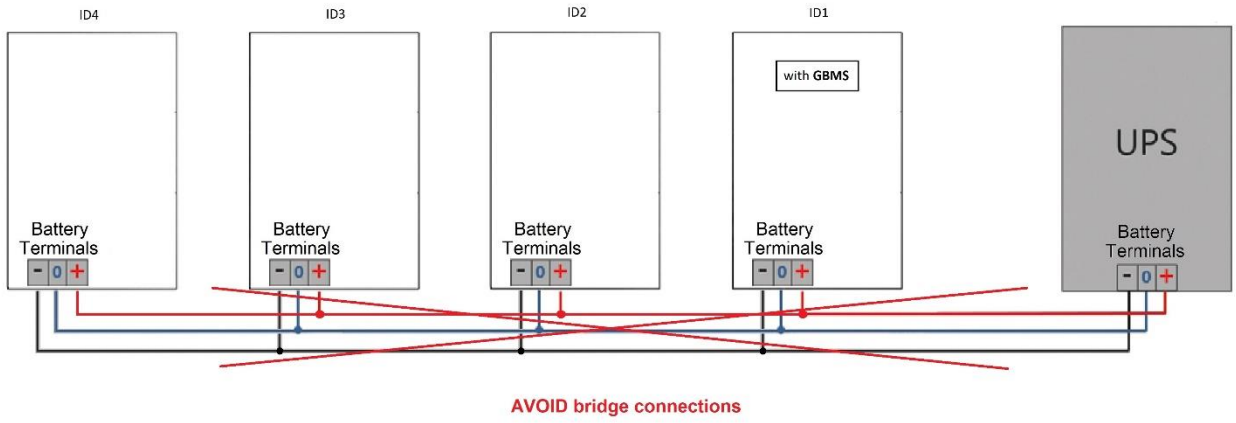
The master battery cabinet is made up of the following items:

description	qty
TP120 battery cabinet	1
Cabinet BMS (CBMS)	1
Global BMS (GBMS)	1
Battery Modules	12

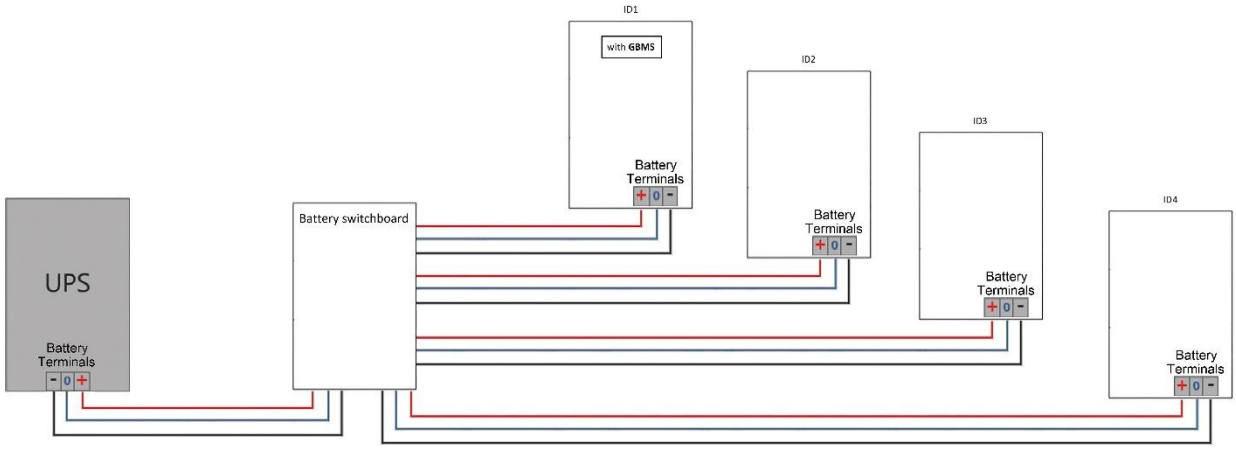
The slave battery cabinet is made up of the following items:

description	qty
TP120 battery cabinet	1
Cabinet BMS (CBMS)	1
Battery Modules	12

Avoid bridge connections when connecting the battery cabinets to the UPS:



It is recommended to provide a battery switchboard if the installation requires more than two battery cabinets:



WARNING

The implementation of the battery switchboard must be carried out according to the local installation regulations and it is a responsibility of the installer. Different installation solutions are the sole responsibility of the installer.

The minimum wire cross section of the cables between the UPS and the lithium battery cabinets should be determined by the number of PM (Power Modules) present in the UPS. Each Keor MOD Power Module has a current consumption in stored energy mode of 65Adc.
The maximum tested length of the cables between the UPS and the lithium battery cabinets is 25m. For installations where the distance is greater than 25m, contact the Legrand Technical Support Service.

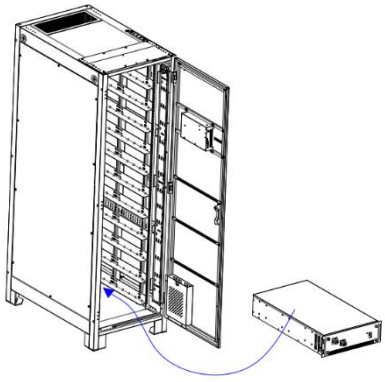
DANGER

The only admittable battery configuration of the UPS with the TP120 lithium battery cabinets is the one with battery in common.
Do not mix TP120 lithium battery cabinets with other types of lithium battery cabinets or with lead-acid battery cabinets. Do not use lithium battery cabinets with Keor Mod UPS having internal lead-acid battery drawers.
It is mandatory to have at least 1 PM for each TP120 lithium battery cabinet.

These are the technical characteristics of the TP120 battery cabinet:

	TP120
Chemistry	LFP
Connection type	3 wires
Global BMS (GBMS)	1
n° of battery modules	12
n° cells in the modules	16
Nominal cells voltage [V]	3,2
Nominal capacity [Ah]	50
Discharge C-rate	5C
Charge C-rate	0,5C
Short circuit current [kA]	4

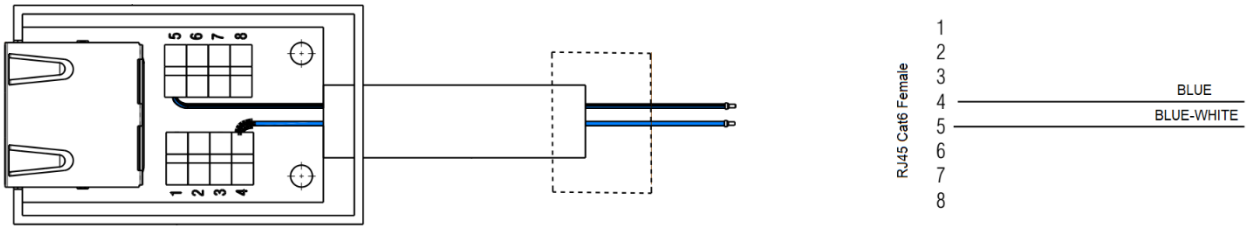
The battery modules must be inserted in the cabinet battery starting from the slot 12 going up. The slots 13 and 14 at the bottom of the cabinet must be left empty.



The UPS communication must be established by connecting the RS485 port of the SSS interface of Keor MOD to the TP120 battery cabinet. To do this, use a RJ45 adapter and one patch cord RJ45 straight (cat. n° 0 517 72…75).

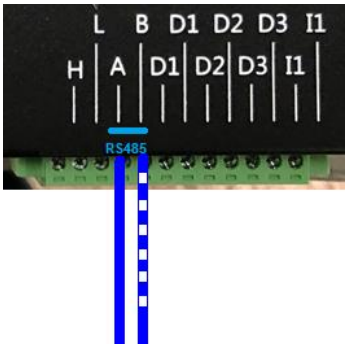
The RJ45 adapter has the following characteristics:

- pin 4 of the RJ45 Female connected with blue wire.
- pin 5 of the RJ45 Female connected with blue/white wire.

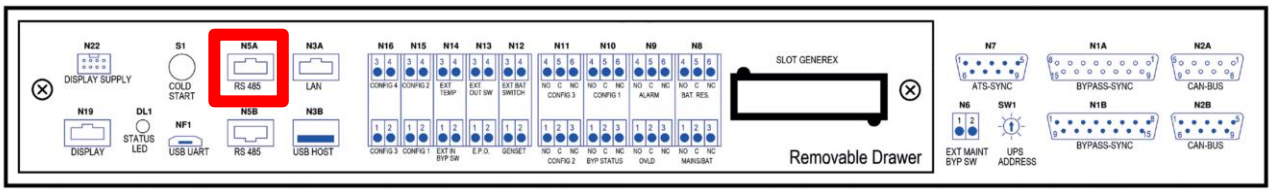


This is the installation procedure:

1) Find the GBMS (Global BMS) which is located on the master battery cabinet at the back of the display. Take the RJ45 adapter and connect the blue wire to the A pin of the terminal and the blue/white wire to the B pin.

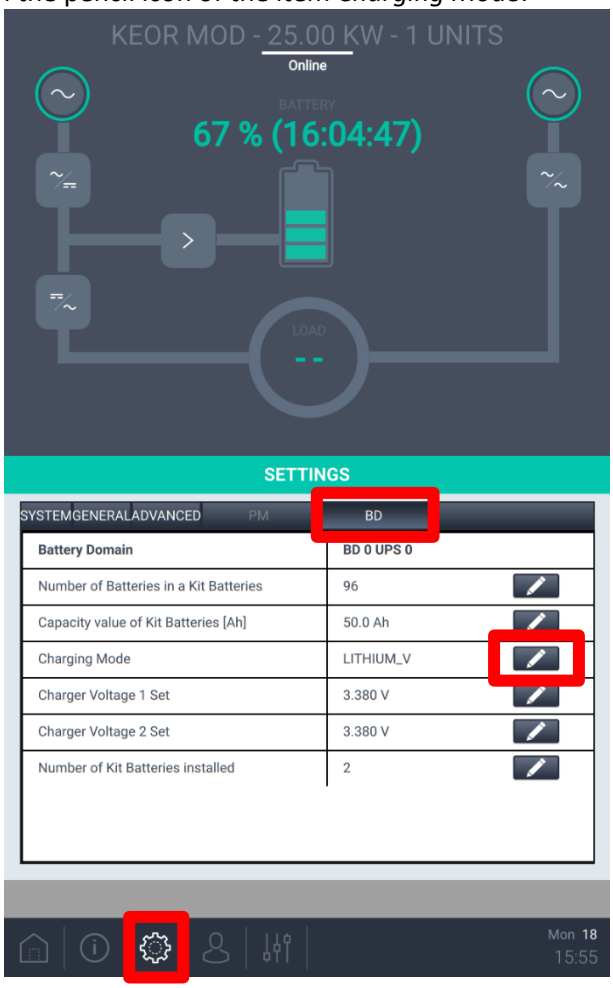


2) Take the patch cord RJ45 straight and connect one side to the female RJ45 of the adapter and the other side to the RS485 port of the SSS interface of Keor MOD. Then use to connect the adapter to the RS485 port of the BMS of the battery cabinet.

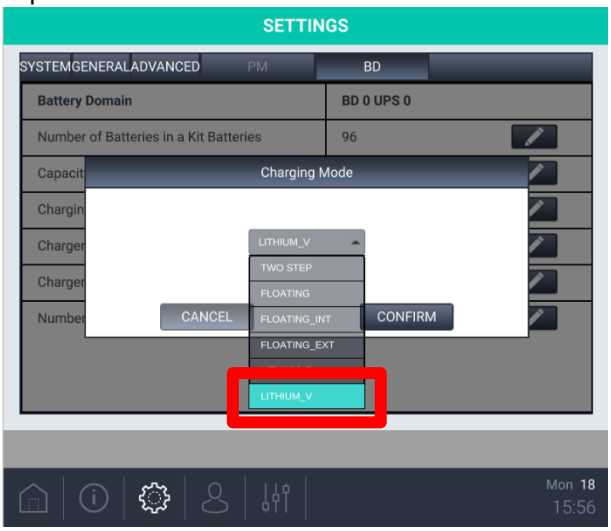


2 HMI configuration for the lithium battery cabinet TP120

1) While the UPS is still in standby mode, tap on the *Setting* icon at the bottom of the screen. Then, tap on the tab BD and eventually on the pencil icon of the item *Charging Mode*.

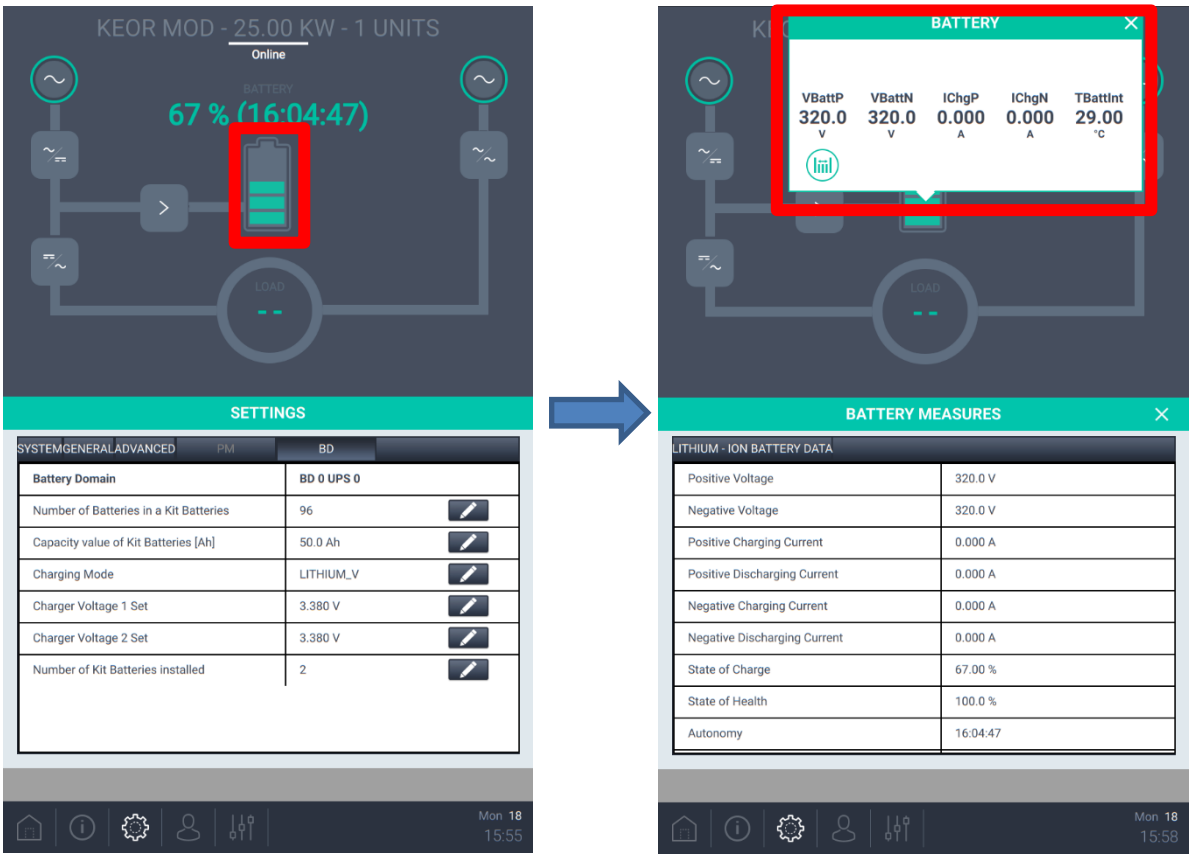


2) Select LITHIUM_V in the drop-down menu.



3 Lithium battery cabinet TP120 measurements

It is possible to visualize a series of parameters and information related to the lithium battery cabinet by tapping on the battery icon in the synoptic area:



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