



SM15K Firmware Revision History

Legend:

- B = Bug fix
- \$ = valuable improvement
- N = New feature

Changes from P0107 to P0108

- N Firmware version auto synchronization:
Installed interface modules are checked for their firmware version during start-up. If they do not meet the requirements of the unit, the interface modules can be auto-synchronized with it.

- N Functions:
Simulation of Internal resistance (Ri) and Leadless sensing is available now. No extra hardware required.

- N Ethernet logging:
A logging mechanism is available for Ethernet communication. Received commands, queries or both can be logged to a file. The file is available via an Ethernet command, as well as via the web interface.

- N Wh and Ah instrument:
Ethernet commands are implemented to measure Ampere Hour (Ah), Watt Hour (Wh), minimum/maximum output current or power.

- N Time and date:
Ethernet commands are implemented to set and read time and date.

- N Temperature:
An Ethernet command is implemented to read the highest temperature in the power supply.

- N Sequencer advanced mode:
In the web console, an extra button is available to monitor the internal variables and timers of the sequencer. The new feature is very helpful during sequence development or debugging.

- \$ Master/Slave parallel:
Up to 60 units can be connected in parallel now.

- \$ Remote sensing:
Stability of the regulation is improved.

- \$ Improved output ripple:
Very fast ripple rejection, in case of AC grid fluctuations.

- B Master / Slave AC fail recovery:
Smooth restart of output voltage after an AC fail recovery.

Changes from P0106 to P0107

- B Fixing disabled front panel:
After updating it might happen that the front panel is not working anymore. Especially when making a big jump in package version.

Changes from P0105 to P0106

- N INT MOD ANA:
The interface INT MOD ANA can be used in the SM15000 series. Also in combination with Master/Slave operation.
The analog input "Vprogram" is linked to the voltage setting.
"Iprogram" is linked to both the positive and the negative current setting.
Positive and negative power settings cannot be set via this interface. Use Front, Web, Eth, etc instead.
- N Master/Slave operation:
Now available for SM1500-CP-30 as well.

Changes from P0104 to P0105

- N Master/Slave series operation:
Up to 6 pcs SM500-CP-90 can be connected and controlled in series. Please contact factory if one or more units were delivered before Q4 2018.
- N Master/Slave series operation Limitation:
The total system output voltage is limited to 750V when 2 or more SM500-CP-90 are connected in series. This applies if at least one of the units was delivered before Q4 2018. Please contact factory for upgrading to 1000V.
- N INT MOD CON:
The four relay contacts can be linked to system status, like ACF, DCF, Output, etc.
(See page 5-7 of Ethernet+Sequencer manual: 'Relay-Status-Linkage').
Furthermore, the contacts can not only be controlled by Ethernet, but also from the web page.
- \$ Sequencer:
When the sequencer is linked to a programming source like Front, the front knobs will still be active, and the sequencer can manipulate these settings.
(See page 6-7 of Ethernet+Sequencer manual: 'selecting a programming source')
- B Sequencer:
The command SP is no longer limited, so it can be used for Master/Slave systems up to 300KW.

Changes from P0103 to P0104