# **Firmware Release Notes**

**SM3300-Series Power Supplies** 

# **Firmware Update**

It is strongly recommended to update units to the latest firmware version. Download the SM3300 Quick Start Guide for instructions, see PRODUCTS\SM3300\DOWNLOADS on our website.

SM18-220

SM66-AR-110

SM100-AR-75

SM330-AR-22

SM660-AR-11

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Information on this document SM3300

# 1 Information on this document

## 1.1 Introduction

The SM3300-series firmware is continuously updated to improve functionality, enhance reliability, and resolve known issues. These release notes summarize the changes introduced in each firmware version and serve as a reference for users and service personnel.

Safety Notice: Before performing any firmware update, all safety precautions described in the SM3300 product manual must be followed. Ensure that the power supply is installed, operated, and updated only under safe conditions.

To guarantee optimal operation, it is strongly recommended to update units to the latest available firmware. Detailed instructions for performing the update are provided in the SM3300 Quick Start Guide, available on the <a href="Delta Elektronika">Delta Elektronika</a> website

To update a unit from the SM3300-series, please follow the instructions in Section 1.2. A detailed list of changes per firmware version can be found in Chapter 2.

# 1.2 Firmware Update

- 1. Download the latest product manual from the Delta Elektronika website and follow the update instructions: Products > SM3300 > Downloads > Manuals > Product Manual SM3300 series.
- Download the latest firmware update package from: <u>Products > SM3300 > Downloads > Firmware > Firmware update SM3300 series.</u>
- 3. Perform the update as described in the product manual.

## 1.3 Additional information

The following documents and files related to firmware updates are available on the website **Products > SM3300 > Downloads**.

Document name	Туре
Quick Start Guide SM3300-series	Guide
Product Manual SM3300-series	Manual
Firmware Release Notes SM3300-series	Release Notes
Firmware Package SM3300-series	Firmware

## 1.4 Firmware update subscription service

A firmware update subscription service is offered free of charge. Subscribers receive notifications when new firmware versions are released, including links to the firmware files and release notes.

To subscribe, please use the Newsletter subscription form and select the relevant product series.

#### 1.5 Contact

For additional guidance, remarks, or feedback, please visit our website and use the **contact form**. A structured technical contact form is available to provide detailed descriptions and upload files

In case of malfunction or breakdown, please fill out the **RMA-form** to get the product serviced.

Revision History SM3300

# 2 Revision History

# 2.1 Legend

N = New feature

V = Valuable improvement

B = Bug fix

## 2.2 Changes from P0161 to P0170

Release date: May 20th, 2025

## N Support of INT-MOD-ANY module

This firmware update adds support for the new plug-and-play INT-MOD-ANY interface module. Once the update is installed, SM3300-series power supplies will be able to be programmed using the INT-MOD-ANY module.

Please note that the firmware update must be performed without the INT-MOD-ANY module being connected. Make sure to unplug the module before starting the update process.

## Intermediate Upgrade Package

Before installing future firmware versions (P0170+), update P0170 must be applied first. This intermediate version is kept minimal to avoid memory issues on older systems during the update process.

Note: P0170 does not include documentation, this will be restored in the next full release.

## 2.3 Changes from P0160 to P0161

Release date: February 6th, 2023

#### B Improvement of INT-MOD-CON interface module

Output status could not be linked to a contact of the INT-MOD-CON interface module. This release fixes that.

# 2.4 Changes from P0157 to P0160

## Internal Update to the unit

For uniformity reasons we made some adjustments in the naming of files and internal information.

No effect on the firmware itself.

## 2.5 Changes from P0156 to P0157

## B Improved Master Slave Functionality

Voltage setting of each slave is only reduce with 0.25% when in parallel mode.

# V Improved Master Slave Functionality in combination with Power sink

Powersink is automatically disabled when:

- a) units are in mixed parallel/series mode. (both master and slaves)
- b) unit is slave and in parallel mode.

# 2.6 Changes from P0155 to P0156

#### B Addition of missing menu items

In the front menu the selection of Setups was missing.

## 2.7 Changes from P0154 to P0155

## V Improved Internal Resistance Simulation

For the SM66-AR-110, the range of internal resistance simulation is increased to 0.327 Ohms.

## 2.8 Changes from P0153 to P0154

#### B PROGAM:CATALOG

Ethernet command PROGAM:CATALOG? returned one linefeed too many.

#### B PROGAM:SELECT:STEP?

Ethernet command PROGAM: SELECT:STEP? didn't return the sequence properly.

# B \***PUD?**

When the PUD does not contain data, only one linefeed is returned instead of two.

#### 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.

#### V Master/Slave

Voltage setting of each Slave unit is set 0.25% lower than the Master.

## V 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 6-6 of Ethernet+Sequencer manual: 'selecting a programming source')

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## 2.9 Changes from P0152 to P0153

#### N Terminator

Ethernet commands can be terminated by a linefeed, carriage return or both.

#### N Stepsize

Via Ethernet commands the digital step size of the voltage and current programming can be queried.

#### ∨ Manual

Content of the manual is updated.

#### B PowerSink

Version P0152 disabled the PSOL-signal. Fixed in this version.

## 2.10 Changes from P0150 to P0152

#### N Local button

Press and hold the output on/off button to force to local operation.

#### N Supervisor info

Via the front menu the supervisor information is shown in case of internal errors.

#### V Temperature

Better temperature sensor handling.

#### V Non-volatile memory

'Self-healing' memory management. This prevents for 'safe-mode' in harsh environments.

#### B Master/Slave

Correctly restoring power-on settings when in M/S mode.

# 2.11 Changes from P0114 to P0150

#### B Master/Slave

The optional interface module INT MOD M/S is now supported.

#### B Non-volatile memory

During the saving of sequences to non-volatile memory incorrect info was shown

#### B TCP/IP connections

Connection was lost when empty or bogus packages were received.

## B Negative Current Sequencer

Compare-commands of the sequencer can process negative output currents now.

# 2.12 Changes from P0113 to P0114

# N Simulator

The optional interface module INT MOD SIM is now supported.

#### N Powersink control

The powersink settings can be controlled via the front panel as well.

# V Firmware update protection

Updating the firmware can be protected by a password.

## B TCP/IP connections

Connection was closed when communication sessions had long intervals in between.

# B ProgramOpenEndError

This status bit wasn't cleared after deleting the invalid sequence.

# 2.13 Changes from P0112 to P0113

## B Output status on front

When the front panel is in lock mode, the output on/off text wasn't refreshed anymore.

#### V Sequencer information

On the web server, more information is displayed in case too much labels are uploaded.

## ∨ TCP/IP connections

A much faster re-connection in case of broken cable links.

## 2.14 Changes from P0111 to P0112

#### B Start-up at low temperatures

At low temperatures (below 0 degrees Celsius) and single phase input, some units will not start-up properly. ACF signal is displayed and it can take minutes before the unit is ready to use

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## 2.15 Changes from P0110 to P0111

5/6

#### N Extra info in front menu

The front menu is extended with information about the serial number and the PUD text.

## N Powersink control via Ethernet commands

New Ethernet commands have been added to edit the settings of a built-in Powersink.

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Revision History SM3300

#### N Sequencer line number

Introduction of difference between next sequence line number and active sequence line number. Available via Ethernet commands and the web console.

#### V Temperature sensor detection

A more selective detection method of the internal temperature sensors.

#### B Powersink settings restore

In certain cases the settings of the Powersink had to be restored by hand after power-up cycles.

#### B Sequence load crashes

When sequences were uploaded and deleted in an intensive manner, the sequencer could crash.

#### B Sequence with labels started conditionally

When sequences, containing text labels, were started conditionally via INT MOD DIG, the sequencer crashed.

## B Large Ethernet packages caused command loss

When a lot of commands were send at once so they didn't fit into one Ethernet package (max 1024 bytes), some commands were lost.

## 2.16 Changes from P0109 to P0110

## N Highlight function

This feature allows the user to identify the unit in an audiovisual way. This feature is available via the web server or via an Ethernet command. The front panel display of the unit will blink several times and a sound signal is generated at the same moment.

#### N Voltage and current limits

The methods to control the voltage and current limits is extended. Besides the front panel menu, it is also possible to adjust the limits via the web server and Ethernet commands.

#### N Sequence trigger

So far the sequence trigger function was only available via an Ethernet command. From this release on this function is also accessible via the web server's sequencer console.

#### V Overload indicators

The web server will now indicate whether or not the analogue inputs of an Int Mod Ana are overloaded (if installed).

#### B PROG:SEL:STEP?

This Ethernet command did not behave properly in case of sequences that were triggered via digital inputs (via Int Mod Dig).

# B \***PUD?**

This Ethernet command returned bad characters if \*PUD was never programmed before.

#### B Password

The password change option on the web server was not limited to the correct maximum length.

## 2.17 Changes from P0108 to P0109

# N Communication WatchDog

This feature checks if the Ethernet communication and commands are valid and received in time. If not, the output of the power supply is switched off.

## ∨ PFC regulation for Uin > 500Vac

The regulation is improved for high input voltages. Reduces noise on the input and extends the power components life time.

## V PFC safety routines

In extreme circumstances (e.g. very high input voltages, over temperatures, etc) the safety routines respond to the situation more gentle.

The previous routines were save as well, but quite brutal.

# B Internal auxiliary voltage checks

The number of checks of internal analogue signals is expended.

#### B Web Server fan speed

Fan speeds close to the maximum result in true rpm in stead 0 rpm.

## B Ethernet command \*sav

In case of missing PUD (Protected User Data), this command returned an error.

This is fixed by creating an empty string when PUD is missing.

#### B Web Server backlight intensity limits

Limits made equal to the limits of the front menu.

## B Web Server Interface text

For the Int Mod Ana, the wrong text was displayed for pin 6. This is changed to the correct text: "PSOL".