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Model 2302/2302-PJ/2306/2306-PJ Pulse Current Command Changes

Release Note

Introduction

This release note contains information on additions and changes to pulse current commands. Read and understand the information below before using your power supply.

Firmware revision level

This release note applies to all Model 2302, 2302-PJ, 2306, and 2306-PJ units with firmware revision B10 and later. The firmware revision level is displayed as part of the power-up cycle, and you can display the revision by using the “REVISION NUMBER” selection in the main MENU (refer to the Instruction Manual, Section 1), or with the *IDN? query via remote (refer to the Instruction Manual, Section 8).

Pulse current command changes

Table 1 lists new or changed pulse current commands. These are changes and additions to Table 3-2 in Section 3 and Table 11-4 in Section 11 of the Instruction manual.

Table 1
Pulse current command changes

Command*	Description	Default
SENSe[1] :PCURrent :TIME :DIGitize <NRf> :TimeOUT	SENSe subsystem for Channel #1 (battery channel): Pulse current configuration: Set integration times: Specify integration time (in sec) for digitizing or burst measurements; 33.33e-6 to 0.8333. Specify length of timeout: 5ms to 32s incrementing in 1ms.	3.333e-5 1 (sec)
SENSe2 :PCURrent :TIME :DIGitize <NRf> :TimeOUT	SENSe subsystem for Channel #2 (charger channel): Pulse current configuration: Set integration times: Specify integration time (in sec) for digitizing or burst measurements; 33.33e-6 to 0.8333. Specify length of timeout: 5ms to 32s incrementing in 1ms.	3.333e-5 1 (sec)

* SENS1:PCUR:TIME:DIG and SENS2:PCUR:TIME:DIG are new commands. Maximum command parameter for SENS1:PCUR:TOUT and SENS2:PCUR:TOUT changed to 32 seconds.

Command descriptions

SENSe[1]:PCURrent:TIME:DIGitize <NRf> Applies to battery channel (#1)

SENSe2:PCURrent:TIME:DIGitize <NRf> Applies to charger channel (#2)

These new commands lets you specify the integration time that occurs when the unit is digitizing or in burst mode. (SENS:PCUR:SYNC:STAT is OFF for the particular channel.) Units with firmware version at or below B09 will have digitization occur at the integration rate of 33.3 μ s. With firmware version B10 and higher, the integration rate will be at the value set with this command. This feature lets you sample a pulse load for a longer time than the previous method by increasing the integration time from 33.3 μ s.

NOTE *Pulse current digitization is also known as pulse current burst mode.*

SENSe[1]:PulseCURrent:TimeOUT <NRf> Applies to battery channel (#1)

SENSe2: PulseCURrent: TimeOUT <NRf> Applies to charger channel (#2)

The maximum allowable parameter for these commands has been changed to 32 seconds to allow measuring and auto timing a pulse high or low portion that has a pulse period up to 32 seconds. The high or low portion being measured or timed must be less than or equal to 833.33ms.