APPENDIX A – Commands control

Commands control format :
[address] <SP>Parameter<SP>Command<SP>[Value]<CR>

[address] = character ASCII 0 (port USB)
character ASCII 1 to 31 (port RS485)

Parameter = VOLT1 - CURR1 - OVP1 - OCP1 - OUT1 - VOLT2 - CURR2 - OVP2 - OCP2 - OUT2 - VOLT3 - CURR3 - OVP3 - OUT3 - OUT - RCL - STO - REM - MODE - TRACK (ASCII character).

Command = WR - RD - MES (ASCII character).
<SP> = 20h (space).
[Value] = ASCII character.
<CR> = 0Dh (return)

Example 1 : 0 VOLT WR 1250 ↵ ➔ *Writing setpoint 1,25 V on USB port*

Example 2 : 1 CURR MES ↵ ➔ *Current measurement request on address 1 from the RS485 port*

Answer :

[address] <SP>Status<SP>Value<CR>

[address] = character ASCII 0 (USB)
character ASCII 1 to 31 (port RS485)

Status = OK- ERR- Local (ASCII character).

OK	Command valid.
ERR	Syntax error in the command.
LOCAL	Command impossible, the power supply is in local mode.

<SP> = 20h (space).
[Value] = characters ASCII.
<CR> = 0Dh (enter)

Example 3 : 0 OK ↵ ➔ Back of *example 1*

Example 4 : 1 OK 450 ↵ ➔ *Back of example 2 current measurement : 450 mA*

Command & Answers	Description
Command : **[address] VOLT1 WR [0-64400] ↵** Answer : **[address] OK ↵**	Writing the voltage setpoint (mV) channel 1, In double mode. Writing the voltage setpoint (mV) in serial, parallel or tracking mode.
Command : **[address] CURR1 WR [0-12200] ↵** Answer : **[address] OK ↵**	Writing the current setpoint (mA) channel 1, In double mode. Writing the current setpoint (mA) in serial, parallel or tracking mode.

Command & Answers	Description
Command : **[address] OVP1 WR [0-64400] ↵** Answer : **[address] OK ↵**	Writing the limit voltage setpoint (mV) channel 1, In double mode. Writing the voltage setpoint (mV) in serial, parallel or tracking mode.
Command : **[address] OCP1 WR [0-12200] ↵** Answer : **[address] OK ↵**	Writing the limit current setpoint (mA) channel 1, In double mode. Writing the limit current setpoint (mA) in serial, parallel or tracking mode.
Command : **[address] OUT1 WR [0-1] ↵** Answer : **[address] OK ↵**	Disconnect /Connect the output of channel 1, in double mode. 0 -> OFF 1 -> ON
Command : **[address] VOLT2 WR [0-32200] ↵** Answer : **[address] OK ↵**	Writing the voltage setpoint (mV) channel 2, In double mode.
Command : **[address] CURR2 WR [0-6100] ↵** Answer : **[address] OK ↵**	Writing the current setpoint (mA) channel 2, In double mode.
Command : **[address] OVP2 WR [0-32200] ↵** Answer : **[address] OK ↵**	Writing the limit voltage setpoint (mV) channel 2, In double mode.
Command : **[address] OCP2 WR [0-6100] ↵** Answer : **[address] OK ↵**	Writing the limit current setpoint (mA) channel 2, In double mode. .
Command : **[address] OUT2 WR [0-1] ↵** Answer : **[address] OK ↵**	Disconnect /Connect the output of channel 2, in double mode. 0 -> OFF 1 -> ON

Command & Answers	Description
Command : **[address] VOLT3 WR [1000-15300]** ↵ Answer : **[address] OK** ↵	Writing the voltage setpoint (mV) channel 3.
Command : **[address] OVP3 WR [1000-15300]** ↵ Answer : **[address] OK** ↵	Writing the limit voltage setpoint (mV) channel 3.
Command : **[address] OUT3 WR [0-1]** ↵ Answer : **[address] OK** ↵	Disconnect /Connect the output of channel 3 0 -> OFF 1 -> ON
Command : **[address] OUT WR [0-1]** ↵ Answer : **[address] OK** ↵	Disconnect /Connect the output of all outputs 0 -> OFF 1 -> ON
Command : **[address] RCL WR [1-16]** ↵ Answer : **[address] OK** ↵	Recall the configuration stored.
Command : **[address] STO WR [1-16]** ↵ Answer : **[address] OK** ↵	Save the usual configuration.
Command : **[address] REM WR [0-1]** ↵ Answer : **[address] OK** ↵	Control mode's power supply. 0 -> Local 1 -> Remote
Command : **[address] MODE WR [0-3]** ↵ Answer : **[address] OK** ↵	Mode coupling of the outputs. 0 -> Double mode 1 -> Serial mode 2 -> Parallel mode 3 -> Tracking mode

Command & Answers	Description
Command : **[address] TRACK WR [0-1] ↵** Answer : **[address] OK ↵**	Output sockets linked inside in tracking mode. 0 -> coupling OFF (isolated) 1 -> coupling ON (coupled)
Command : **[address] VOLT1 RD ↵** Answer : **[address] OK [0-64400] ↵**	Reading the voltage setpoint (mV) channel 1, In double mode. Reading the voltage setpoint (mV) in serial, parallel or tracking mode.
Command : **[address] CURR1 RD ↵** Answer : **[address] OK [0-12200] ↵**	Reading the current setpoint (mA) channel 1, In double mode. Reading the limit current setpoint (mA) in serial, parallel or tracking mode.
Command : **[address] OVP1 RD ↵** Answer : **[address] OK [0-64400] ↵**	Reading the limit voltage setpoint (mV) channel 1, In double mode. Reading the voltage setpoint (mV) in serial, parallel or tracking mode.
Command : **[address] OCP1 RD ↵** Answer : **[address] OK [0-12200] ↵**	Reading the limit current setpoint (mA) channel 1, In double mode. Reading the limit current setpoint (mA) in serial, parallel or tracking mode.
Command : **[address] OUT1 RD ↵** Answer : **[address] OK [0-1] ↵**	Reading output connection channel 1. 0 -> OFF 1 -> ON
Command : **[address] VOLT2 RD ↵** Answer : **[address] OK [0-32200] ↵**	Reading the voltage setpoint (mV) channel 2, in double mode.
Command : **[address] CURR2 RD ↵** Answer : **[address] OK [0-6100] ↵**	Reading the current setpoint (mA) channel 2, in double mode.

Command & Answers	Description
Command : **[address] OVP2 RD ↵** Answer : **[address] OK [0-32200] ↵**	Reading the limit voltage setpoint (mV) channel 2, in double mode.
Command : **[address] OCP2 RD ↵** Answer : **[address] OK [0-6100] ↵**	Reading the limit current setpoint (mA) channel 2, in double mode.
Command : **[address] OUT2 RD ↵** Answer : **[address] OK [0-1] ↵**	Reading output connection channel 2. 0 -> OFF 1 -> ON
Command : **[address] VOLT3 RD ↵** Answer : **[address] OK [1000-15300] ↵**	Reading the voltage setpoint (mV) channel 3.
Command : **[address] OVP3 RD ↵** Answer : **[address] OK [1000-15300] ↵**	Reading the limit voltage setpoint (mV) channel 3.
Command : **[address] OUT3 RD ↵** Answer : **[address] OK [0-1] ↵**	Reading output connection channel 3. 0 -> OFF 1 -> ON
Command : **[address] OUT RD ↵** Answer : **[address] OK [0-1] ↵**	Reading the two output's connection. 0 -> OFF 1 -> ON
Command : **[address] MODE RD ↵** Answer : **[address] OK [0-1] ↵**	Reading the mode coupling of the outputs. 0 -> Double mode 1 -> Serial mode 2 -> Parallel mode 3 -> Tracking mode

Command & Answers	Description
Command : **[address] TRACK RD ↵** Answer : **[address] OK [0-1] ↵**	Reading sockets coupling of outputs in tracking mode. 0 -> coupling OFF (isolated) 1 -> coupling ON (coupled)
Command : **[address] MODE1 RD ↵** Answer : **[address] OK [0-2] ↵**	0 => not defined mode (output OFF) 1 => voltage regulation mode channel 1. 2 => current regulation mode channel 1
Command : **[address] MODE2 RD ↵** Answer : **[address] OK [0-2] ↵**	0 => not defined mode (output OFF, serial,//) 1 => voltage regulation mode channel 2. 2 => current regulation mode channel 2
Command : **[address] VOLT1 MES ↵** Answer : **[address] OK [0-64400] ↵**	Measuring voltage (mV) channel 1, in double mode. Measuring voltage (mV) in serial, parallel or tracking mode.
Command : **[address] CURR1 MES ↵** Answer : **[address] OK [0-64400] ↵**	Measuring current (mA) channel 1, in double mode. Measuring current (mA) in serial, parallel or tracking mode.
Command : **[address] VOLT2 MES ↵** Answer : **[address] OK [0-32200] ↵**	Measuring voltage (mV) channel 2, in double mode.
Command : **[address] CURR2 MES ↵** Answer : **[address] OK [0-6100] ↵**	Measuring current (mA) channel 2, in double mode.
Command : **[address] CURR3 MES ↵** Answer : **[address] OK [0-3300] ↵**	Measuring current (mA) channel 3.