Protocol uitgelegd

**Identificatie**

*REQ:* “00 00 00 00 C1 00 00 00 C1”

(dec) 00 00 00 00 193 00 00 00 193

*RES:* “00 00 11 00 C1 F3 00 00 C5”

00 00 – Master address.

00 11 – Slave address.

00 C1 – Commando: Request Slave address ( in RES: F3 xx).

00 00 – ??.

C1 (C5) – Checksum.

**Firmware**

*REQ:* “11 00 00 00 B4 00 00 00 C5”

(dec) 17 00 00 00 180 00 00 00 197

*RES:* “00 00 11 00 B4 F3 00 00 00 00 00 00 00 E3 00 04 01 34 06 00 00 00 00 00 00 00 00 00 00 00 DA”

00 00 11 00 – Master slave adressen.

00 B4 – Commando ( in RES: F3 xx).

7x “00” – ??.

E3 00 – DEV id.

01 04 – Firmware ver. Vertaald naar: 1.04.

06 34 – Firmware datum. (default: 0634).

00 – ??.

DA – Checksum.

**Data request**

*REQ:* “11 00 00 00 B6 00 00 00 C7”

(dec) 17 00 00 00 182 00 00 00 199

*RES:*“00 00 11 00 B6 F3 00 00 04 03 35 00 8A 13 E8 00 00 00 24 00 90 0B 00 1F DB BC 01 00 00 00 FD”

00 00 11 00 B9 F3 00 00 D0 00 00 00 35 00 D6 00 DC 00 00 00 DC 03 8C 52 F2 01 00 00 00 00 24

00 00 11 00 B6 F3 – Adressen en commando

00 00 – Flags (Error’s / status). Zie hoofdstuk “flags” voor uitleg.

0304 – PV voltage (0304 hex → 772 decimaal /10 → 77,2 Volt).

0035 – PV amperage (0304 hex → 53 decimaal /100 → 0,53 Ampère).

138A – Grid Frequency (138A hex → 5002 decimaal /100 → 50,02 Hz).

00E8 – Grid Voltage (00E8 Hex → 232 decimaal → 232 Volt).

00 00 – ??.

00 24 – Grid Power Out (0024 Hex → 36 decimaal → 36 Watt).

00 0B 90 – Totaal Grid Out (000B90 Hex → 2960 decimaal /100 → 29,60 kWh).

1F – Temperatuur (1F Hex → 31 decimaal → 31 °C).

0001BCDB – Operating time (113883 Minuten).

00 00 – ??.

FD – Checksum.

**Flags**

Er kunnen meerdere flags tegelijk geset zijn.

Hex: Desc. Bit

0x0000: Normal operation (0b0000 0000 0000 0000)

0x0001: Usolar too high (0b0000 0000 0000 0001)

0x0002: Usolar too low (0b0000 0000 0000 0010)

0x0004: No Grid (0b0000 0000 0000 0100)

0x0008: Uac too high (0b0000 0000 0000 1000)

0x0010: Uac too low (0b0000 0000 0001 0000)

0x0020: Fac too high (0b0000 0000 0010 0000)

0x0040: Fac too low (0b0000 0000 0100 0000)

0x0080: Temperature too high (0b0000 0000 1000 0000)

0x0100: Hardware failure (0b0000 0001 0000 0000)

0x0200: Starting (0b0000 0010 0000 0000)

0x0400: Max power (0b0000 0100 0000 0000)

0x0800: Max current (0b0000 1000 0000 0000)

**Request Max Power**

*REQ:* “11 00 00 00 B9 00 00 CA”

(dec) 17 00 00 00 185 00 00 00 202

*RES:* “00 00 11 00 B9 F3 00 00 20 00 00 00 1B 00 21 00 22 00 00 00 E5 02 7E 48 36 00 00 00 00 00 1E”

00 00 11 00 B6 F3 – Adressen en commando

00 36 – Max Power (36 Hex → 54 decimaal → 54 Watt).

1E – Checksum.

**Reset Max Power**

Resets de max power van commando “B9” weer naar nul.

*REQ:* “11 00 00 00 97 01 00 00 A9”

(dec) 17 00 00 00 151 01 00 00 169

*RES:* “00 00 11 00 97 01 00 00 A9”

**Read history data**

De inverter onthoudt data van de afgelopen 10 dagen.

*REQ:* “11 00 00 00 9A 0x 00 AB”

0x – Dag waarbij “00” vandaag “01”gister … “09” 9 dagen terug, en natuurlijk alles ertussen.

*RES:* “00 00 11 9A 54 9F 00 04”

54 – Day Operating time (54 Hex → 84 decimaal \*5 → 420 minuten).

00 9F – Day Grid Out (9F Hex → 159 decimaal /100 → 1,59 kWh).