



WebdynSunPM
Annex

Solarmax

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1. Solarmax

1.1 Supported equipment

Solarmax equipment is compatible with the following protocols implemented in WebdynSunPM:

Inverter protocol	Physical interface	Features
Solarmax	RS485 2-wire	32 max

Note

Depending on the amount of data collected, the maximum number of devices can be reduced.

Warning

On the same physical RS485 interface, connected inverters must have the same serial protocol and configuration.

Equipment with the Solarmax protocol managed by webdynSunPM is divided into 11 categories:

- **Generic**

- SolarMax 5TP2
- SolarMax 6TP2
- SolarMax 7TP2
- SolarMax 25HT4
- SolarMax 25HT2
- SolarMax 20HT4
- SolarMax 20HT2
- SolarMax 30SHT
- SolarMax 28SHT
- SolarMax 25SHT
- SolarMax 22SHT
- SolarMax 20SHT
- SolarMax 17SHT
- SolarMax 15SMT
- SolarMax 13SMT
- SolarMax 10SMT
- SolarMax 8SMT
- SolarMax 6SMT
- SolarMax 6000P
- SolarMax 5000P
- SolarMax 4600P
- SolarMax 4000P
- SolarMax 3600P
- SolarMax 3000P
- SolarMax 2500P
- SolarMax 2000P

- SolarMax 1500P
- SolarMax 1000P
- **String inverter type 1**
 - SolarMax 2000C
 - SolarMax 3000C
 - SolarMax 4000C
 - SolarMax 4200C
 - SolarMax 6000C
 - SolarMax 2000S
 - SolarMax 3000S
 - SolarMax 4200S
 - SolarMax 6000S
- **String inverter type 2**
 - SolarMax 6MT2 CH
 - SolarMax 12MT2 A
 - SolarMax 15MT3 A
 - SolarMax 18MT3 A
 - SolarMax 10MT
 - SolarMax 13MT3 13MT
 - SolarMax 15MT3 15MT
 - SolarMax 10MT2
 - SolarMax 13MT2
 - SolarMax 15MT2
 - SolarMax 6MT2
 - SolarMax 8MT2
- **String inverter type 3**
 - SolarMax 2000P
 - SolarMax 3000P
- **String inverter type 4**
 - SolarMax 4000P
 - SolarMax 4600P
 - SolarMax 5000P
- **String inverter type 5**
 - SolarMax 4TP1
- **String inverter type 6**
 - SolarMax 30HT4
 - SolarMax 32HT4
 - SolarMax 32HT2
- **Central inverter type 1**
 - SolarMax 20C
 - SolarMax 25C
 - SolarMax 30C
 - SolarMax 35C
 - SolarMax 50C
 - SolarMax 80C
 - SolarMax 100C
 - SolarMax 300C
 - SolarMax 330C-SV
 - SolarMax 20S
 - SolarMax 35S

- **Central inverter type 2**

- SolarMax 50TS
- SolarMax 75TS A
- SolarMax 80TS
- SolarMax 100TS
- SolarMax 300TS ST
- SolarMax 300TS MT
- SolarMax 330TS-SV ST
- SolarMax 330TS-SV MT
- SolarMax 660TS-SV ST
- SolarMax 660TS-SV MT
- SolarMax 990TS-SV ST
- SolarMax 990TS-SV MT
- SolarMax 1320TS-SV ST
- SolarMax 1320TS-SV MT
- SolarMax 360TS-SV ST
- SolarMax 360TS-SV MT
- SolarMax 720TS-SV ST
- SolarMax 720TS-SV MT
- SolarMax 1080TS-SV ST
- SolarMax 1080TS-SV MT
- SolarMax 1440TS-SV ST
- SolarMax 1440TS-SV MT
- SolarMax 500RX Outdoor
- SolarMax 600RX Outdoor
- SolarMax 533RX Outdoor

- **MaxCount**

- MaxCount

- **MaxMeteo**

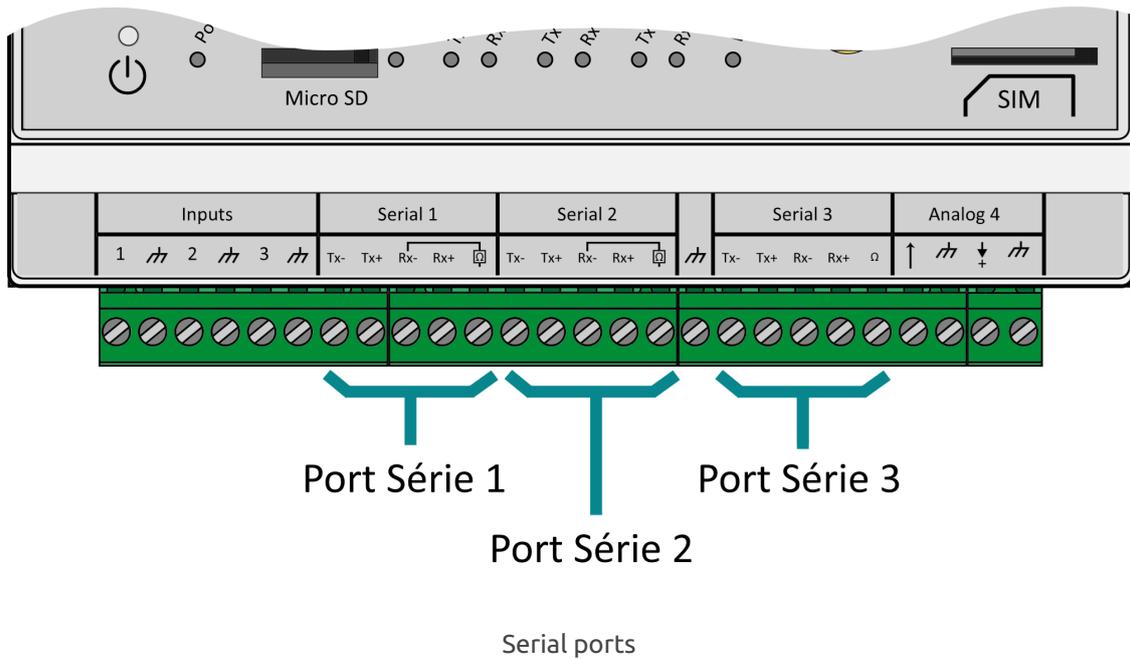
- MaxMeteo

1.2 Connection of gateway to Solarmax equipment via RS485 bus

Solarmax equipment is connected to one of WebdynSunPM's three RS485 communication buses.

i Note

For further details, please refer to the **WebdynSunPM** user manual.



Warning

All wiring work must be carried out by a qualified electrician. Prior to installation, all devices connected to the corresponding communication bus must be disconnected on both sides (DC and AC). Please observe all safety instructions in the inverter documentation.

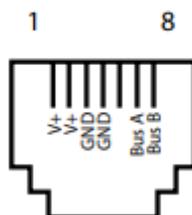
Note

The total length of RS485 connections must be less than 300 meters. If you wish to increase length, use a Solarmax MaxComm amplifier.

Setting up resistance terminations at the start and end of the RS485 network is not recommended by the manufacturer Solarmax. Some Solarmax equipment requires an external +15VDC power supply, such as :

- C series inverters
- MaxConnectPlus with MCP-DSP and MCP-LEM
- MaxVisio
- MaxMeteo
- MaxCount

The RS485 bus is connected via an RJ45 connector with the following pinout:



Solarmax RJ45

Column	Column	Column
Value	Value	Value
Value	Value	Value
Spindle	Function	
1	V+ (mains supply input)	
2	V+ (mains supply input)	
3	GND (mains supply)	
4	GND (mains supply)	
5	-	
6	-	
7	A (RS485)	
8	B (RS485)	

Depending on the equipment model, the RJ45 socket can be used either as an RS485 or as Ethernet interface. The switchover is made in the "Settings" menu of the graphic display. Please refer to the documentation for the Solarmax equipment to be connected.

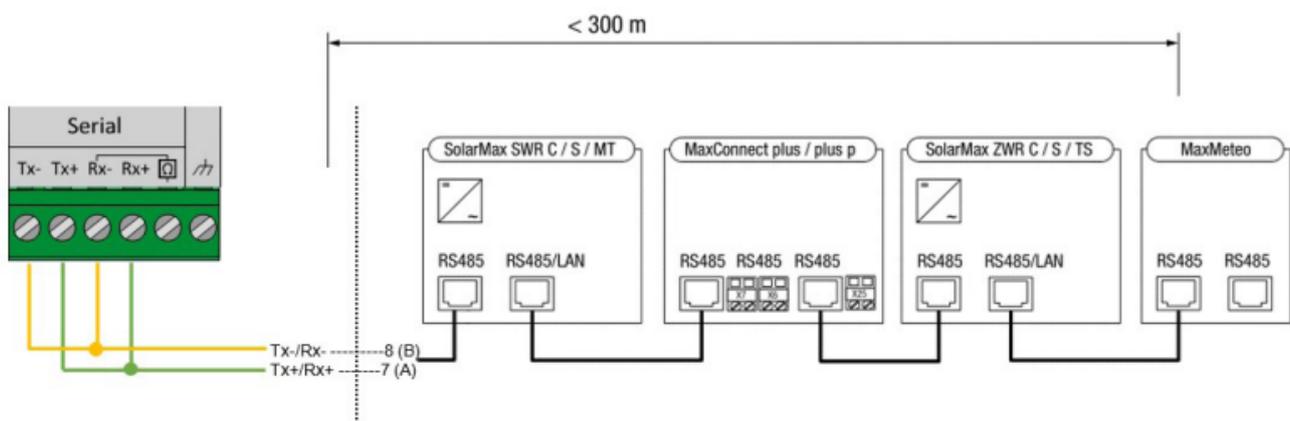
1.3 Daisy-chain wiring

Warning

The maximum length of a Solarmax link (RS485) is 300m.

1.3.1 Length < 300m

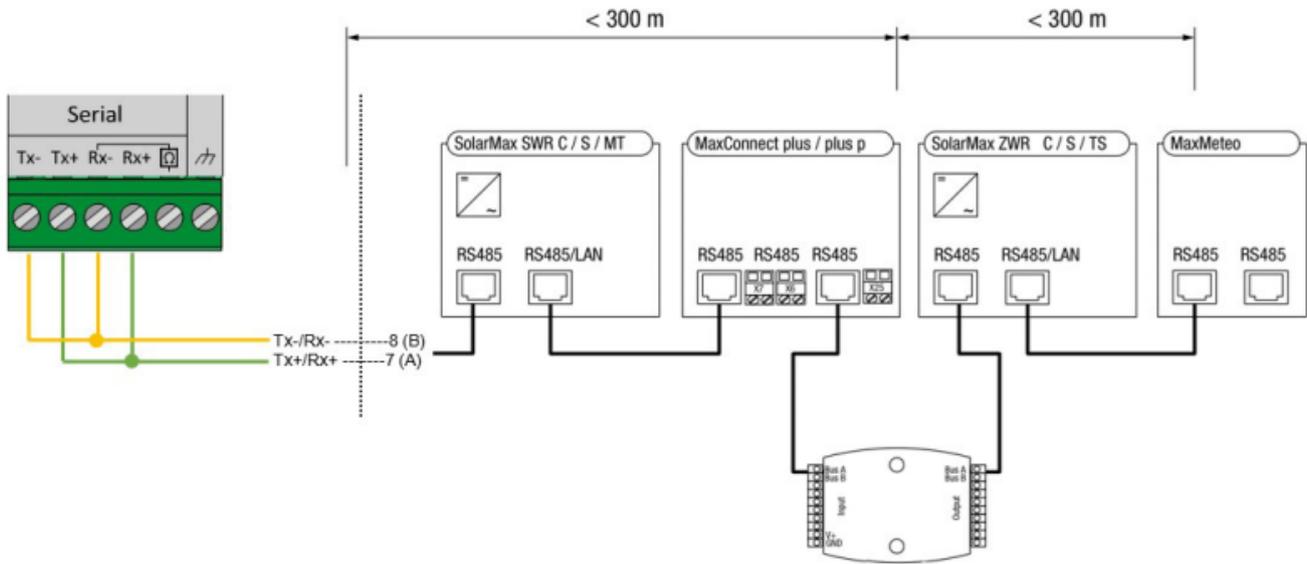
• **Wiring example**



Solarmax daisy-chain

1.3.2 Length > 300m

- **Wiring example**



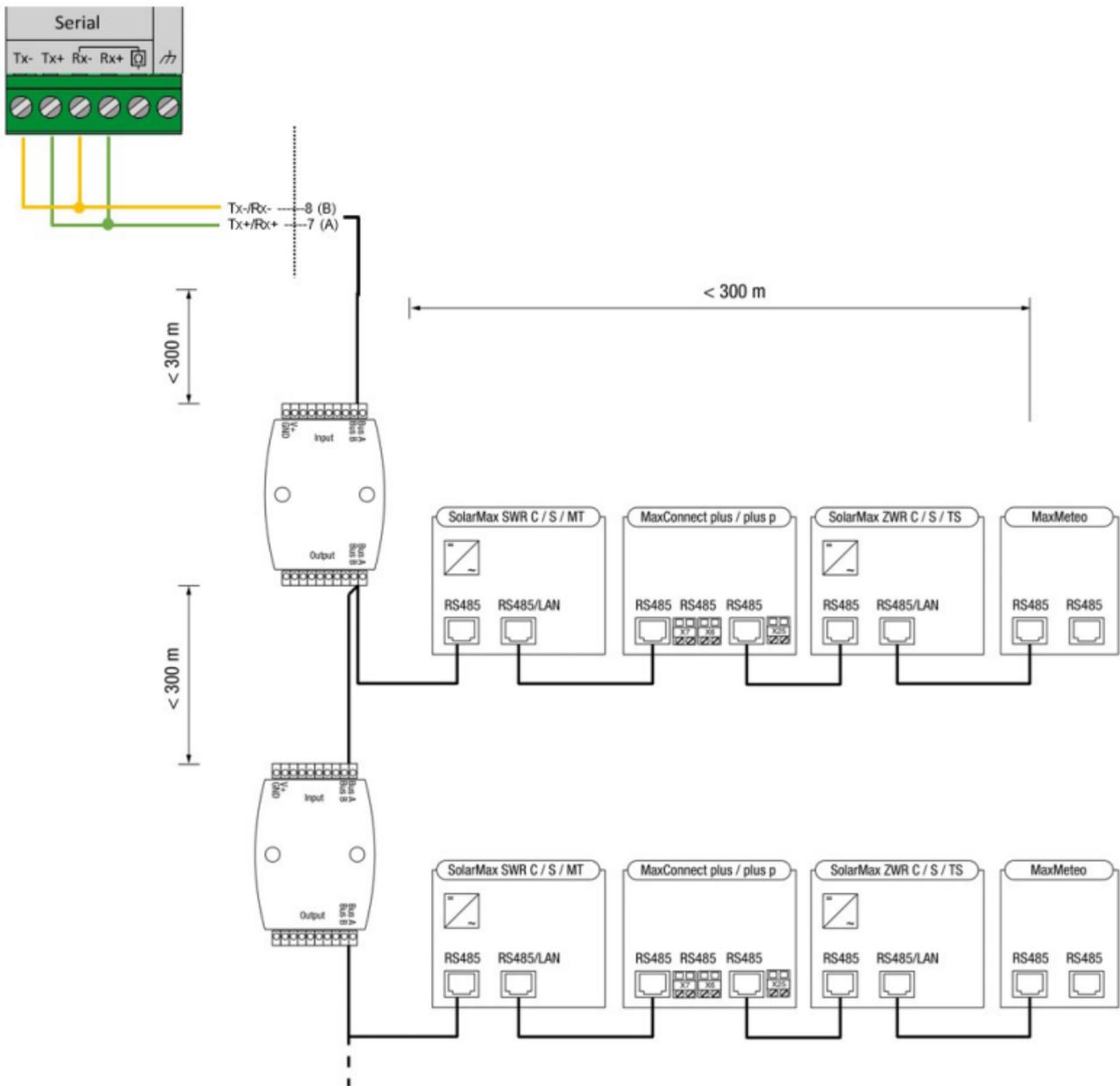
Solarmax daisy-chain

1.3.3 Segmentation

Segments are network sections branching off from a main branch. In some installations photovoltaic systems, this may be necessary when using a conventional Daisy Chain network. would result in proportionally too much wiring.

A further advantage of this network structure is the electrical separation of the individual components. segments. If a fault occurs in one segment, the others remain operational.

- **Wiring example**

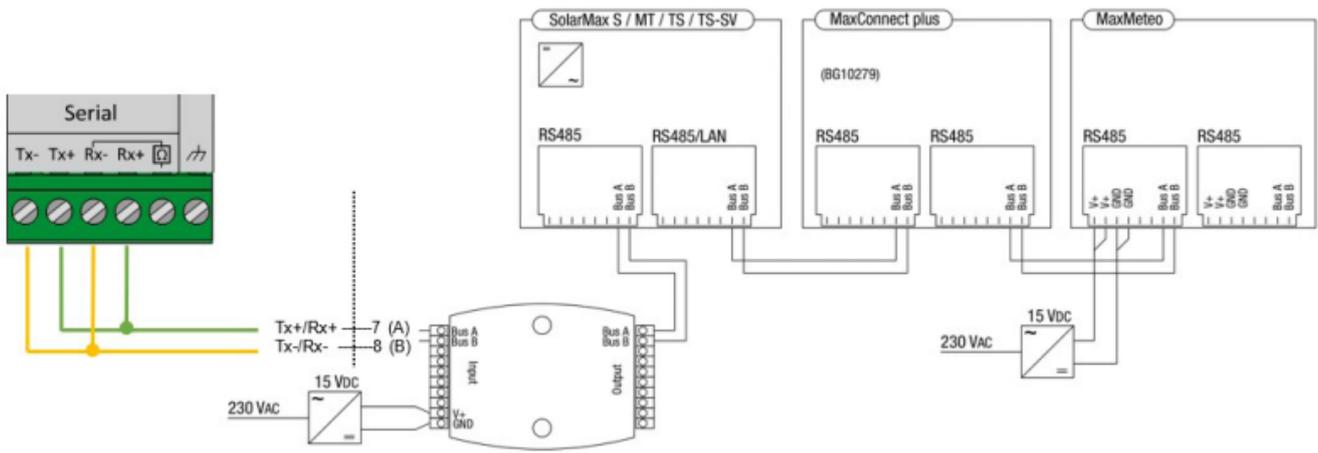


Solarmax daisy-chain split

1.4 External power supply

It is advisable to supply any device requiring an external +15VDC power supply with a This means they are not subject to the length of the bus.

- **Wiring example**



SolarMax daisy-chain power supply

1.5 Serial link configuration

Warning

Check that the serial identifier is different for all SolarMax equipment connected to the site.

Info

Please refer to the **WebdynSunPM user manual** for complete serial link configuration.

The concentrator's serial link can be configured from the on-board web interface or from the `<uid>_daq.csv` file stored in the `/CONFIG` directory on remote server 1.

Here are the parameters for each interface:

Web interface	<code><uid>_daq.csv</code>	Value
Protocol	protocol	SOLARMAX
Mode	wires	RS485 2 wires
Baudrate	baudrate	19200
Data bits	data_bits	8
Parity	parity	None
Stop bits	stop_bits	1
Interframe	interframe	0
Forwarded TCP port	forwarded_port	

1.6 Configuring Solarmax equipment on the hub

Protocol	Automatic detection	Manual addition
Solarmax (RS485)	✓	✗

i Info

Please refer to the **WebdynSunPM user manual** for manual equipment addition or automatic detection.

1.7 Solarmax protocol definition file

The file names for the Solarmax protocol are as follows:

```
<uid>_SOLARMAX_Inverter_SOLARMAX_<Modèle>.csv
```

With:

- `<uid>` : unique identifier for the concentrator
- `<Modèle>` : automatically generated from KACO protocol "Model" information

The file is built with a specific header line followed by the description of the registers.

• Header

```
Protocol;Category;Manufacturer;Model
```

• Register description

```
Index;Info1;Info2;Info3;Info4;Nom;Tag;Mise à l'échelle;Décalage;Unité;Code Action
```

The **Info1,Info2,Info3,Info4** fields in the Kaco protocol correspond to:

- **Info1:** PORT - Port number used for the equipment request. See documentation Solarmax equipment.
- **Info2:** KEY - Identifier of the variable to be collected on the equipment. See documentation Solarmax equipment.
- **Info3:** Variable format - The following formats are allowed:
 - U8: 8-bit unsigned integer (1 byte)
 - U16: unsigned 16-bit integer (2 bytes)
 - U32: 32-bit unsigned integer (4 bytes, or 2 registers)
- **Info4:** not used

Below is an example of a definition file for the **Generic** category:

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
```



```

3;100;PAC;U32;;AC ouput;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
12;100;SYS;U32;;Status code;;1.000000;0.000000;;8
13;200;DPR;U32;;Desired power relative;;1.000000;0.000000;ppm;17
14;200;DPH;U32;;Desired phi;;1.000000;-3141592.000000;µrad;17
15;200;DQR;U32;;Desired Q relative;;1.000000;-1000000.000000;sppm;17
16;200;RCA;U8;;Remote control action;;1.000000;0.000000;;17
17;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17

```

Example of a definition file for a Solarmax **String inverter type 1:**

```

SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC ouput;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;100;UDC;U16;;Voltage DC;;0.100000;0.000000;V;4
12;100;UL1;U16;;Voltage phase 1;;0.100000;0.000000;V;4
13;100;IDC;U16;;Current DC;;0.010000;0.000000;A;4
14;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
15;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
16;100;SYS;U32;;Status code;;1.000000;0.000000;;8
17;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17

```

Example of a definition file for a Solarmax **String inverter type 2 :**

```

SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC ouput;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;100;UD01;U16;;Voltage DC tracker 1;;0.100000;0.000000;V;4
12;100;UD02;U16;;Voltage DC tracker 2;;0.100000;0.000000;V;4
13;100;UD03;U16;;Voltage DC tracker 3;;0.100000;0.000000;V;4
14;100;UL1;U16;;Voltage phase 1;;0.100000;0.000000;V;4
15;100;UL2;U16;;Voltage phase 2;;0.100000;0.000000;V;4
16;100;UL3;U16;;Voltage phase 3;;0.100000;0.000000;V;4
17;100;ID01;U16;;Current DC tracker 1;;0.010000;0.000000;A;4
18;100;ID02;U16;;Current DC tracker 2;;0.010000;0.000000;A;4
19;100;ID03;U16;;Current DC tracker 3;;0.010000;0.000000;A;4
20;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
21;100;IL2;U16;;Current phase 2;;0.010000;0.000000;A;4

```



```
22;100;IL3;U16;;Current phase 3;;0.010000;0.000000;A;4
23;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
24;100;SYS;U32;;Status code;;1.000000;0.000000;;8
25;200;DPR;U32;;Desired power relative;;1.000000;0.000000;ppm;17
26;200;DPH;U32;;Desired phi;;1.000000;-3141592.000000;µrad;17
27;200;DQR;U32;;Desired Q relative;;1.000000;-1000000.000000;sppm;17
28;200;RCA;U8;;Remote control action;;1.000000;0.000000;;17
29;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17
```

Example of a definition file for a Solarmax **String inverter type 3** :

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;UDC;U16;;Voltage DC;;0.100000;0;V;4
10;100;UAC;U16;;Voltage AC;;0.100000;0.000000;V;4
11;100;IDC;U16;;Current DC;;0.010000;0.000000;A;4
12;100;IAC;U16;;Current AC;;0.010000;0.000000;A;4
13;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
14;100;SYS;U32;;Status code;;1.000000;0.000000;;8
15;200;PLR;U8;;Active power limitation;;1.000000;0.000000;%;17
```

Example of a definition file for a Solarmax **String inverter type 4** :

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;UD01;U16;;Voltage DC tracker 1;;0.100000;0.000000;V;4
10;100;UD02;U16;;Voltage DC tracker 2;;0.100000;0.000000;V;4
11;100;UAC;U16;;Voltage AC;;0.100000;0.000000;V;4
12;100;ID01;U16;;Current DC tracker 1;;0.010000;0.000000;A;4
13;100;ID02;U16;;Current DC tracker 2;;0.010000;0.000000;A;4
14;100;IAC;U16;;Current AC;;0.010000;0.000000;A;4
15;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
16;100;SYS;U32;;Status code;;1.000000;0.000000;;8
17;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17
```

Example of a definition file for a Solarmax **String inverter type 5** :

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
```



```

9;100;UDC;U16;;Voltage DC;;0.100000;0.000000;V;4
10;100;UL1;U16;;Voltage phase 1;;0.100000;0.000000;V;4
11;100;UL2;U16;;Voltage phase 2;;0.100000;0.000000;V;4
12;100;UL3;U16;;Voltage phase 3;;0.100000;0.000000;V;4
13;100;IDC;U16;;Current DC;;0.010000;0.000000;A;4
14;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
15;100;IL2;U16;;Current phase 2;;0.010000;0.000000;A;4
16;100;IL3;U16;;Current phase 3;;0.010000;0.000000;A;4
17;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
18;100;SYS;U32;;Status code;;1.000000;0.000000;;8
19;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;1

```

Example of a definition file for a Solarmax equipment of category **String inverter type 6** :

```

SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;101;UD01;U16;;Voltage DC tracker 1;;0.100000;0.000000;V;4
12;101;UD02;U16;;Voltage DC tracker 2;;0.100000;0.000000;V;4
13;102;UD01;U16;;Voltage DC tracker 3;;0.100000;0.000000;V;4
14;102;UD02;U16;;Voltage DC tracker 4;;0.100000;0.000000;V;4
15;100;UL1;U16;;Voltage phase 1;;0.100000;0.000000;V;4
16;100;UL2;U16;;Voltage phase 2;;0.100000;0.000000;V;4
17;100;UL3;U16;;Voltage phase 3;;0.100000;0.000000;V;4
18;101;ID01;U16;;Current DC tracker 1;;0.010000;0.000000;A;4
19;101;ID02;U16;;Current DC tracker 2;;0.010000;0.000000;A;4
20;102;ID01;U16;;Current DC tracker 3;;0.010000;0.000000;A;4
21;102;ID02;U16;;Current DC tracker 4;;0.010000;0.000000;A;4
22;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
23;100;IL2;U16;;Current phase 2;;0.010000;0.000000;A;4
24;100;IL3;U16;;Current phase 3;;0.010000;0.000000;A;4
25;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
26;100;SYS;U32;;Status code;;1.000000;0.000000;;8
27;200;DPR;U32;;Desired power relative;;1.000000;0.000000;ppm;17
28;200;DPH;U32;;Desired phi;;1.000000;-3141592.000000;µrad;17
29;200;DQR;U32;;Desired Q relative;;1.000000;-1000000.000000;sppm;17
30;200;RCA;U8;;Remote control action;;1.000000;0.000000;;17
31;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17

```

Example of a definition file for a Solarmax equipment of category **Central inverter type 1** :

```

SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;100;UDC;U16;;Voltage DC;;0.100000;0.000000;V;4
12;100;UL1;U16;;Voltage phase 1;;0.100000;0.000000;V;4

```



```
13;100;UL2;U16;;Voltage phase 2;;0.100000;0.000000;V;4
14;100;UL3;U16;;Voltage phase 3;;0.100000;0.000000;V;4
15;100;IDC;U16;;Current DC;;0.0100000;0.000000;A;4
16;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
17;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
18;100;SYS;U32;;Status code;;1.000000;0.000000;;8
19;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17
```

Example of a definition file for a Solarmax **Central inverter type 2** :

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;PAC;U32;;AC output;;0.500000;0.000000;W;4
4;100;KHR;U32;;Operating hours;;1.000000;0.000000;;4
5;100;KYR;U32;;Energy year;;1.000000;0.000000;kWh;4
6;100;KMT;U32;;Energy month;;1.000000;0.000000;kWh;4
7;100;KDY;U32;;Energy day;;0.100000;0.000000;kWh;4
8;100;KT0;U32;;Energy total;;1.000000;0.000000;kWh;4
9;100;PIN;U32;;Installed capacity;;0.500000;0.000000;W;4
10;100;PRL;U8;;Relative output;;1.000000;0.000000;%;4
11;101;UDC;U16;;Voltage DC tracker 1;;0.100000;0.000000;V;4
12;102;UDC;U16;;Voltage DC tracker 2;;0.100000;0.000000;V;4
13;103;UDC;U16;;Voltage DC tracker 3;;0.100000;0.000000;V;4
14;104;UDC;U16;;Voltage DC tracker 4;;0.100000;0.000000;V;4
15;105;UDC;U16;;Voltage DC tracker 5;;0.100000;0.000000;V;4
16;106;UDC;U16;;Voltage DC tracker 6;;0.100000;0.000000;V;4
17;107;UDC;U16;;Voltage DC tracker 7;;0.100000;0.000000;V;4
18;108;UDC;U16;;Voltage DC tracker 8;;0.100000;0.000000;V;4
19;109;UDC;U16;;Voltage DC tracker 9;;0.100000;0.000000;V;4
20;110;UDC;U16;;Voltage DC tracker 10;;0.100000;0.000000;V;4
21;111;UDC;U16;;Voltage DC tracker 11;;0.100000;0.000000;V;4
22;112;UDC;U16;;Voltage DC tracker 12;;0.100000;0.000000;V;4
23;100;UI1;U16;;Voltage L1-L2;;0.100000;0.000000;V;4
24;100;UI2;U16;;Voltage L2-L3;;0.100000;0.000000;V;4
25;100;UI3;U16;;Voltage L3-L1;;0.100000;0.000000;V;4
26;101;IDC;U16;;Current DC tracker 1;;0.0100000;0.000000;A;4
27;102;IDC;U16;;Current DC tracker 2;;0.0100000;0.000000;A;4
28;103;IDC;U16;;Current DC tracker 3;;0.0100000;0.000000;A;4
29;104;IDC;U16;;Current DC tracker 4;;0.0100000;0.000000;A;4
30;105;IDC;U16;;Current DC tracker 5;;0.0100000;0.000000;A;4
31;106;IDC;U16;;Current DC tracker 6;;0.0100000;0.000000;A;4
32;107;IDC;U16;;Current DC tracker 7;;0.0100000;0.000000;A;4
33;108;IDC;U16;;Current DC tracker 8;;0.0100000;0.000000;A;4
34;109;IDC;U16;;Current DC tracker 9;;0.0100000;0.000000;A;4
35;110;IDC;U16;;Current DC tracker 10;;0.0100000;0.000000;A;4
36;111;IDC;U16;;Current DC tracker 11;;0.0100000;0.000000;A;4
37;112;IDC;U16;;Current DC tracker 12;;0.0100000;0.000000;A;4
38;100;IL1;U16;;Current phase 1;;0.010000;0.000000;A;4
39;100;IL2;U16;;Current phase 2;;0.010000;0.000000;A;4
40;100;IL3;U16;;Current phase 3;;0.010000;0.000000;A;4
41;100;TKK;U16;;Temperature power unit 1;;1.000000;0.000000;°C;4
42;100;SYS;U32;;Status code;;1.000000;0.000000;;8
43;200;PLR;U8;;Active power limitation;cmdPwrPercent;1.000000;0.000000;%;17
```

Example of a definition file for **MaxCount** Solarmax equipment:

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;I1Y;U32;;Pulse counter 1 year;;0.100000;0.000000;kWh;4
4;100;I1P;U32;;Pulse counter 1 power;;0.500000;0.000000;W;4
```



```
5;100;I1S;U16;;Pulse counter 1 scaling;;1.000000;0.000000;;4
6;100;I1D;U32;;Pulse counter 1 day;;0.100000;0.000000;kWh;4
7;100;I1T;U32;;Pulse counter 1 total;;0.100000;0.000000;kWh;4
8;100;I2Y;U32;;Pulse counter 2 year;;0.100000;0.000000;kWh;4
9;100;I2P;U32;;Pulse counter 2 power;;0.500000;0.000000;W;4
10;100;I2S;U16;;Pulse counter 2 scaling;;1.000000;0.000000;;4
11;100;I2D;U32;;Pulse counter 2 day;;0.100000;0.000000;kWh;4
12;100;I2T;U32;;Pulse counter 2 total;;0.100000;0.000000;kWh;4
```

Example of a definition file for Solarmax **MaxMeteo** equipment:

```
SOLARMAX;Inverter;SOLARMAX;model
1;100;ADR;U8;;Network address;;1.000000;0.000000;;1
2;100;TYP;U16;;Type;;1.000000;0.000000;;1
3;100;RYR;U32;;Solar energy year;;0.100000;0.000000;kWh/m2;4
4;100;RDY;U32;;Solar energy day;;0.100000;0.000000;kWh/m2;4
5;100;RT0;U32;;Solar energy total;;0.100000;0.000000;kWh/m2;4
6;100;RAD;U16;;Solar irradiation;;1.000000;0.000000;W/m2;4
7;100;TSZ;U16;;Temperature solar cells;;1.000000;-32767.000000;°C;4
```

1.8 Solarmax alarm file

Any variable defined with the action field set to 8 in the definition file generates a alarm on status change.

Special case of the "Status Code" variable: The special feature of this variable is that it gives the operating status of the equipment, in addition to report any equipment faults. To avoid too many alarms being sent to the server remote, only status codes above 20100 trigger alarms. Please contact Solarmax for further information on the meaning of the error codes in the equipment.