# Three-phase inverters for grid-connected photovoltaic systems

**SINVERT 350 M – SINVERT 1700 MS**
**SINVERT 500 M TL – SINVERT 2000 MS TL**

**Grid-connected photovoltaic systems with maximum yields and a long service life - for 20 years and more!**

With SINVERT, you are on the sunny side. Because our inverters are based on reliable standard Siemens components, such as SIMATIC S7 controllers or MASTER-DRIVES and SINAMICS converters.

**Further advantages at a glance:**

- Efficiency > 98 %
- Available as single or container solution
- Ethernet as standard
- Long service life thanks to intelligent master-slave concept
- Best performance ratio for your PV system
- Highest quality standard by using proven industrial components and more than 20 years experience

# SINVERT PV Inverter

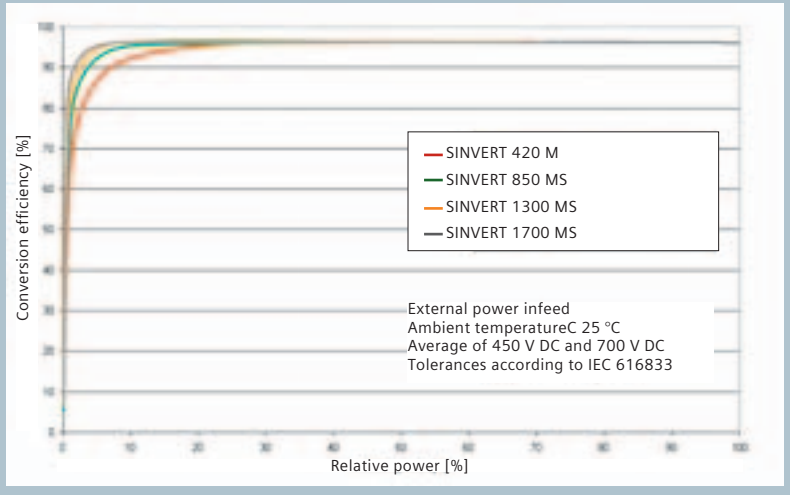
Answers for environment.

SIEMENS

# Technical Data

| Technical data for Sinvert PV inverters | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Inverter type * | | 350 M | 420 M | 700 MS | 850 MS | 1000 MS | 1300 MS | 1400 MS | 1700 MS |
| **Input DC** | | | | | | | | | |
| MPP voltage | V | 450 – 750 | | | | | | | |
| Max. operating voltage | V | 820 (900 V optional) | | | | | | | |
| Rated input power | V | 900 (must not be exceeded) | | | | | | | |
| Rated input power | kW | 373 | 465 | 746 | 930 | 1119 | 1395 | 1492 | 1860 |
| Rated input current | A | 820 | 1022 | 1640 | 2044 | 2460 | 3066 | 3280 | 4088 |
| Number of DC inputs | | 4 | 4 | 8 | 8 | 12 | 12 | 16 | 16 |
| Max. current per DC input | A | 250 | | | | | | | |
| **Output AC** | | | | | | | | | |
| Grid connection | | 3 ~ 230/400 V; 50 Hz (60 Hz optional) | | | | | | | |
| Rated output power | kW | 357 | 435 | 714 | 870 | 1071 | 1305 | 1428 | 1740 |
| Rated ouput current | A | 518 | 630 | 1036 | 1260 | 1554 | 1890 | 2072 | 2520 |
| **Efficiency** | | | | | | | | | |
| eta EU | % | 95.5 | 95.7 | 96 | 96.2 | 96.1 | 96.2 | 96.1 | 96.3 |
| Max. efficiency | % | 96.5 | | | | | | | |
| **Further data** | | | | | | | | | |
| Number of single units | Pcs. | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| Dimensions (H x W x D) per unit) | mm | 2000 x 2700 x 800 | | | | | | | |
| Weight per unit | kg | 2025 | 2540 | 2025 | 2540 | 2025 | 2540 | 2025 | 2540 |
| Ambient temperature | °C | 0 – 50 | | | | | | | |
| Installation | | up to 1000 m | | | | | | | |
| Max. humidity rating | % | 85 (non-condensing) | | | | | | | |

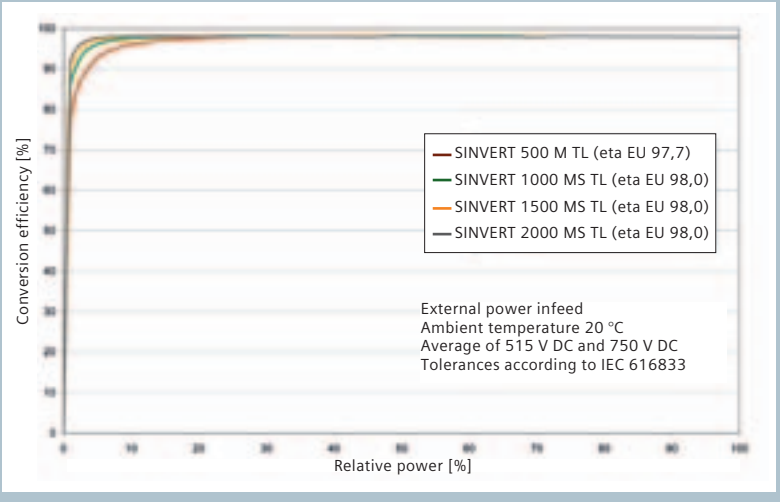
* M = Master
MS = Master-slave system



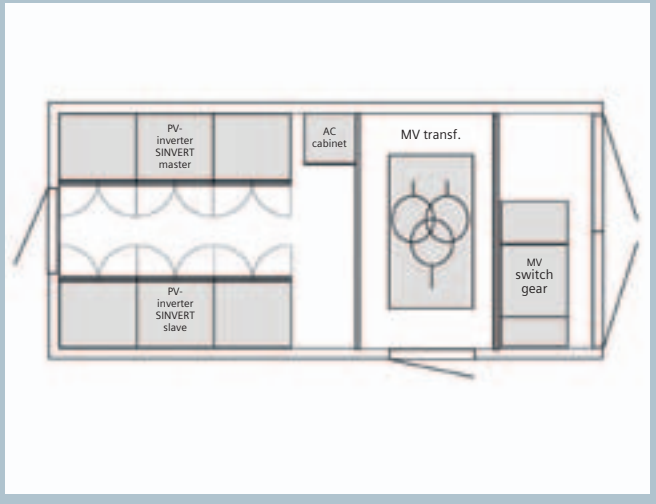

Efficiency curve for SINVERT
420 M/850 MS/1300 MS/1700 MS

| Technical data for SINVERT PV inverters - for transformerless series | | | | | |
|---|---|---|---|---|---|
| Inverter type * | | 500 M TL | 1000 MS TL | 1500 MS TL | 2000 MS TL |
| **Input DC** | | | | | |
| MPP voltage | V | 515 – 750 | | | |
| Max. system voltage | V | 900 (1000 V DC optional) | | | |
| Rated input power | kW | 513 | 1026 | 1539 | 2052 |
| Rated input current | A | 1000 | 2000 | 3000 | 4000 |
| Number of DC inputs | | 4 | 8 | 12 | 16 |
| Max. current per DC input | A | 250 | 250 | 250 | 250 |
| **Output AC** | | | | | |
| Grid connection | | 3 ~ 328 V; 50 Hz (60 Hz optional) | | | |
| Rated output power | kW | 500 | 1000 | 1500 | 2000 |
| Rated output current | A | 881 | 1762 | 2643 | 3524 |
| **Efficiency** | | | | | |
| eta EU | % | 97.7 | 98.0 | 98.0 | 98.0 |
| Max. efficiency | % | 98.2 | | | |
| **Further data** | | | | | |
| Number of single units | Pcs. | 1 | 2 | 3 | 4 |
| Dimensions (H x W x D) per unit | mm | 2000 x 2718 x 834 | | | |
| Weight per unit | kg | 1700 | | | |
| Ambient temperature | °C | 0 – 50 | | | |
| Installation altitude | | up to 1000 m | | | |
| Max. humidity rating | % | 85 (non-condensing) | | | |

* M = Master
MS = Master-slave system




Efficiency curve of SINVERT
500 M TL/1000 MS TL/1500 MS TL/2000 MS TL




Example:
1 MW container station with SINVERT 1000 MS TL
and medium-voltage components

# References

Source: Gehrlicher Solar AG

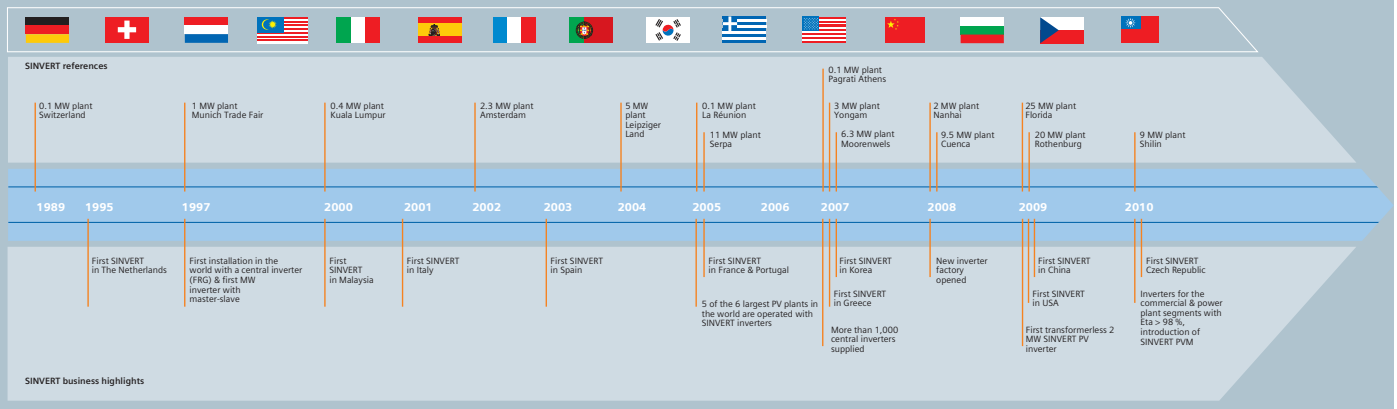
**21 MW PV power plant Rothenburg, Germany - December 2009**

- Container solutions with
  - 10 x SINVERT 2000 MS TL
- Medium-voltage components
- Generator boxes
- PV WinCC monitoring software

**25 MW PV power plant Florida, USA - November 2009**

- Container solutions with
  - 13 x SINVERT 1700 MS
  - 1 x SINVERT 1400 MS
  - 1 x SINVERT 1300 MS
- Medium-voltage components

## More than 20 years of experience with PV inverters

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