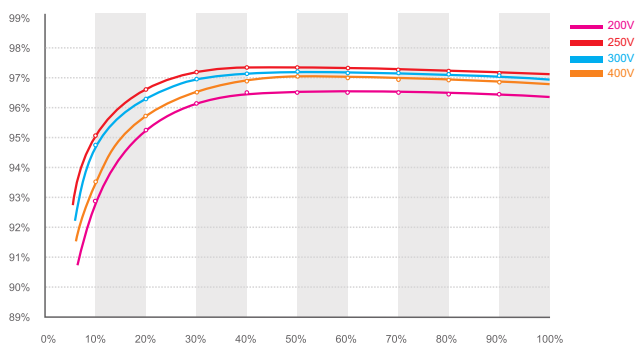


## Leading - edge Technology

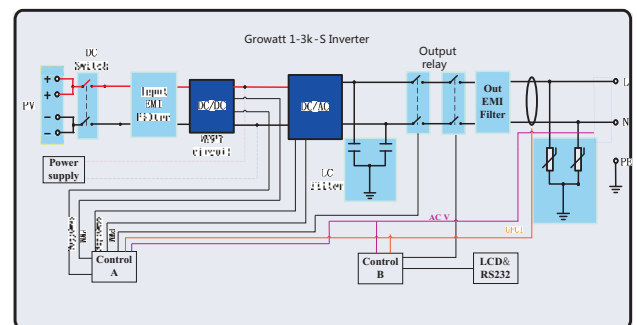
- ▶ Maximum efficiency of 97.6% and wide input voltage range
- ▶ Internal DC switch
- ▶ Transformerless GT topology
- ▶ Compact design
- ▶ Ethernet / RF technology / Wi-Fi
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program



Growatt 1500-S efficiency



Growatt 1-3k -S topology



Datasheet	Growatt 1000-S	Growatt 1500-S	Growatt 2000-S	Growatt 3000-S
<b>Input data (DC)</b>				
Max. recommended PV power (for module STC)	1300W	1900W	2300W	3400W
Max. DC voltage	450V	450V	450V	550V
Start voltage	80V	80V	80V	80V
PV voltage range	70V-450V	70V-450V	70V-450V	70V-550V
MPP work voltage range/ nominal voltage	70V-450V/180V	70V-450V/250V	70V-450V/360V	70V-550V/360V
Full load dc voltage range	110V-400V	175V-400V	200V-400V	250V-500V
Max. input current	10A	10A	11A	13A
Max. input current per string	10A	10A	11A	13A
Number of independent MPP trackers /strings per MPP tracker	1/1	1/1	1/1	1/ 2
<b>Output (AC)</b>				
Rated AC output power	1000W	1600W	2000W	3000W
Max. AC power	1000W	1650W	2000W	3000W
Max. output current	4.7A	7.8A	9.5A	14.3A
AC nominal voltage; range	220,230,240V; 180Vac-280Vac	220,230,240V; 180Vac-280Vac	220,230,240V; 180Vac-280Vac	220,230,240V; 180Vac-280Vac
AC grid frequency; range	50,60 Hz;±5 Hz	50,60 Hz;±5 Hz	50,60 Hz;±5 Hz	50,60 Hz;±5 Hz
Power factor	1	1	1	1
THDI	<3%	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase	Single phase
<b>Efficiency</b>				
Max. efficiency	97.4%	97.4%	97.4%	97.6%
Euro weighted efficiency	96.5%	97%	97%	97.3%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%
<b>Protection Devices</b>				
DC reverse polarity protection	yes	yes	yes	yes
DC switch rating for each MPPT	opt	opt	opt	opt
Output over current protection	yes	yes	yes	yes
Output over voltage protection -varistor	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes
Integrated all - pole sensitive leakage current monitoring unit	yes	yes	yes	yes
<b>General Data</b>				
Dimensions (W / H / D) in mm	271*267*142	271*267*142	271*267*142	271*320*142
Weight	6.1KG	6.1KG	6.1KG	8.8KG
Operating temperature range	- 25°C ... +60°C with derating above 45°C	- 25°C ... +60°C with derating above 45°C	- 25°C ... +60°C with derating above 45°C	- 25°C ... +60°C with derating above 45°C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Altitude	2000m without derating	2000m without derating	2000m without derating	2000m without derating
Self-Consumption night	<0.5 W	<0.5 W	<0.5 W	<0.5 W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65
Relative humidity	100%	100%	100%	100%
<b>Features</b>				
DC connection	H4	H4	H4	H4
AC connection	Connector	Connector	Connector	Connector
Display	LCD	LCD	LCD	LCD
Interfaces: RS232/ RF/ Wi-Fi/ LAN/GPRS	yes /opt/opt/opt/opt	yes /opt/opt/opt/opt	yes /opt/opt/opt/opt	yes /opt/opt/opt/opt
Warranty: 5 years / 10 years	yes /opt	yes /opt	yes /opt	yes /opt
<b>Certificates and Approvals</b>				