



DATASHEET

THREE-PHASE HYBRID/AC INVERTER
STAR-H3-12.0-SMART



THREE-PHASE

HYBRID/AC INVERTER

Harness the power of the sun day and night with NGEN's three-phase hybrid inverter. Our advanced line of hybrid inverters is characterized by outstanding performance, flexibility and efficiency, and is optimized for use with our own high-voltage battery set.

Easy installation

Flexible configuration, quick and easy installation, integrated safety and protection devices.



EASY
INSTALLATION

Integrated Emergency Power Function

Thanks to the integrated emergency power function (3-phase) the inverter automatically switches to emergency power mode in the event of a grid failure (20 ms) and selected loads in the household are supplied with energy via the photovoltaic system or the NGEN-STAR battery.



INTEGRATED
EPS-FUNCTION

Protection class IP65

The inverter is suitable for outdoor installation. However, it is mandatory to protect it from the weather.



IP65 RATED

Remote Monitoring

The hybrid inverter can be monitored via the user-friendly smartphone app or the Web application from SG Connect.



REMOTE
MONITORING

Smart heat pumps

"Smart Grid Ready" signifies that heat pumps communicate intelligently with the power grid through the Synaptic, sourcing energy at the most opportune time. This results in reduced energy costs and environmentally friendly operation of the heat pump.



SMART
HEAT
PUMPS

MODULARE SYSTEM- BATTERY STORAGE

With the battery storage systems from NGEN, you have the flexibility to easily expand your system by adding extra batteries. Thanks to the modular design of the battery system, up to nine units can be combined and store up to 41,93 kWh of energy, which creates considerable scope for adapting the storage requirements.

Model	STAR-H3-12.0-SMART
INPUT PV (only for hybrid)	
Max. Input Power [W]	22500
Max. Input Power per MPP Tracker [W]	10000 / 10000 / 10000
Max. Input Voltage [V]	1000 *
Max. Input Current [A]	20 / 20 / 20
Max. Short-circuit Current [A]	25 / 25 / 25
Start-up Voltage [V]	140
MPPT Voltage Range [V]	120 – 950
Number of MPP Trackers	3
Strings per MPP Tacker (MPPT1/MPPT2)	1 + 1 + 1
AC INPUT AND OUTPUT (GRID)	
Max. AC Input Power [VA]	14400
Max. AC Input Current (per phase) [A]	21.8
Rated Output Power [W]	12000
Max. Output Apparent Power [VA]	13200
Rated Output Current (per phase) [A]	18,2
Max. Output Current (per phase) [A]	20
Rated Grid Voltage [V]	3L/N/PE 400/230; 380/220
Rated Grid Frequency [Hz]	50/60 (+/- 5)
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)
EPS OUTPUT	
Max. Output Apparent Power [VA]	12000
Peak Output Apparent Power (60s) [VA]	14400
Max. Output Current [A]	17.4
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)
EFFICIENCY	
Max. Efficiency [%]	97.9
Euro Efficiency [%]	97.2
GENERAL DATA	
Dimensions (WxHxD) [mm]	600*450*226
Weight [kg]	34
Installation	Wall-Mounted
Cooling Method	Fan cooling
Noise Emission [db]	55
Max. Operating Altitude [m]	<4000 @>2000 Power Derating
Operating Temperature Range [°C]	from -25 to +60
Storage / Operation Humidity (No Condensation) [%]	0 to 100
Protection Degree	IP65
Warranty	10 years
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)	
Safety	EN 62109-1; EN 62109-2; EN 62477-1
EMC	IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4
Grid Regulation	EN50549-1, EN50549-10, VDE-AR-N 4105, Austria TOR Typ A



* For 1000V system, PV Maximum operating voltage is 950V.

Refer to NGEN STAR Warranty Terms and Conditions