



# PV Grid-tied Inverter (Central Inverter)

## SolarOcean 1000MV-ST

Samil Power Station integrates new generation SolarOcean series central inverter, DC cabinets and all electronics to be custom-fitted into a prefabricated weather-sealed enclosure container for simple and speed installation on project site. There are many tailor-made options available to configure to specific project requirements for rated power at 1000kW.

The PV Power Station has two key advantages: a compact design which makes it easy to transport and to install, and its flexibility to have rampost or concrete supporting base available for applying on real various project sites.

This PV Power Station uses the new generation central inverter and oil filled MV transformers ranging from 11kV to 35kV to maximize its efficiencies and reliability. The modular layout design on inverter enclosure container allows for simple maintenance in all weather conditions.

### FEATURES

- Turnkey solution for MW solar power plants
- Rated power at 1MW
- Compact design - easy to transport and to install
- Maximum efficiency – use of new generation central inverter and oil filled MV transformer

# Datasheet of SolarOcean Series

Inverter Model	SolarOcean 1000MV-ST
Inverter	2xSolarOcean 500TL
<b>Input (DC)</b>	
Max. DC voltage [V]	1000
MPPT voltage range (full load) [V]	450-820
Numbers of MPPT	2x1
Max. combined DC input current [A]	2x1200
Numbers of DC inputs available	2x10 (10 inputs/DC cabinet)
<b>Input Protections</b>	
Isolation control (earth fault monitoring)	Yes
Integrated DC protection	Yes
Reverse polarity and backfeed current protection (each input)	Yes
Load-Breaking DC switch (each input, monitored)	Yes
Input surge protection	Yes
<b>Output (AC) (before medium voltage transformer)</b>	
Rated AC power [kW]	2x500
Max. AC current [A]	2x1070
Rated AC voltage/range [V]	270+/-10%
Rated AC frequency/range [Hz]	50
Power factor (cos $\phi$ )	0.9 lagging-0.9 leading
THDi (at rated power)	<3%
<b>Output Protection (before medium voltage transformer)</b>	
AC output circuit breaker per inverter (magneto-thermic switch)/breaking capacity	1250A/50kA
Emergency stop	Yes
Overvoltage protection (power and aux input)	Yes
<b>Conversion Efficiency (before medium voltage transformer)</b>	
Peak efficiency	98.6%
Euro efficiency	98.3%
<b>Communication/user Interface</b>	
Communication	RS485 (standard)/CAN (optional)
<b>Environmental Parameters</b>	
Ingress protection (IP)	IP54
Operating temperature range [ $^{\circ}$ C/ $^{\circ}$ F]	-20-+50/-4-122
Cooling (Inverter)	Air forced
Required ambient air cooling flow	22000m <sup>3</sup> /h
Relative humidity	5-95% (non-condensing)
Maximum altitude above sea level without derating	3000m
<b>Building Specifications</b>	
Construction	Standard 20 FT container
Mounting	Cement block mount/rampost
Insulation	R4.2
Wind load	120kmph
Snow load	45lb/FT <sup>2</sup>
Dimensions (WxHxD) [mm/in]	6058x2438x2869/238.5x96.0x113.0
Overall weight [kg/lb]	7500/16534.7 (without transformer)
<b>Certificates</b>	
Inverter	CQC, CE, TUV
<b>Transformer (optional)</b>	
Type and rating	Y/d11 - d11; oil filled/dry
Voltage	11kV to 35kV
Cooling class	AN
Primary configuration	2x270V
Conductor material (both primary and secondary)	Copper or Aluminum
Grid management (LVRT, anti-islanding)	Yes