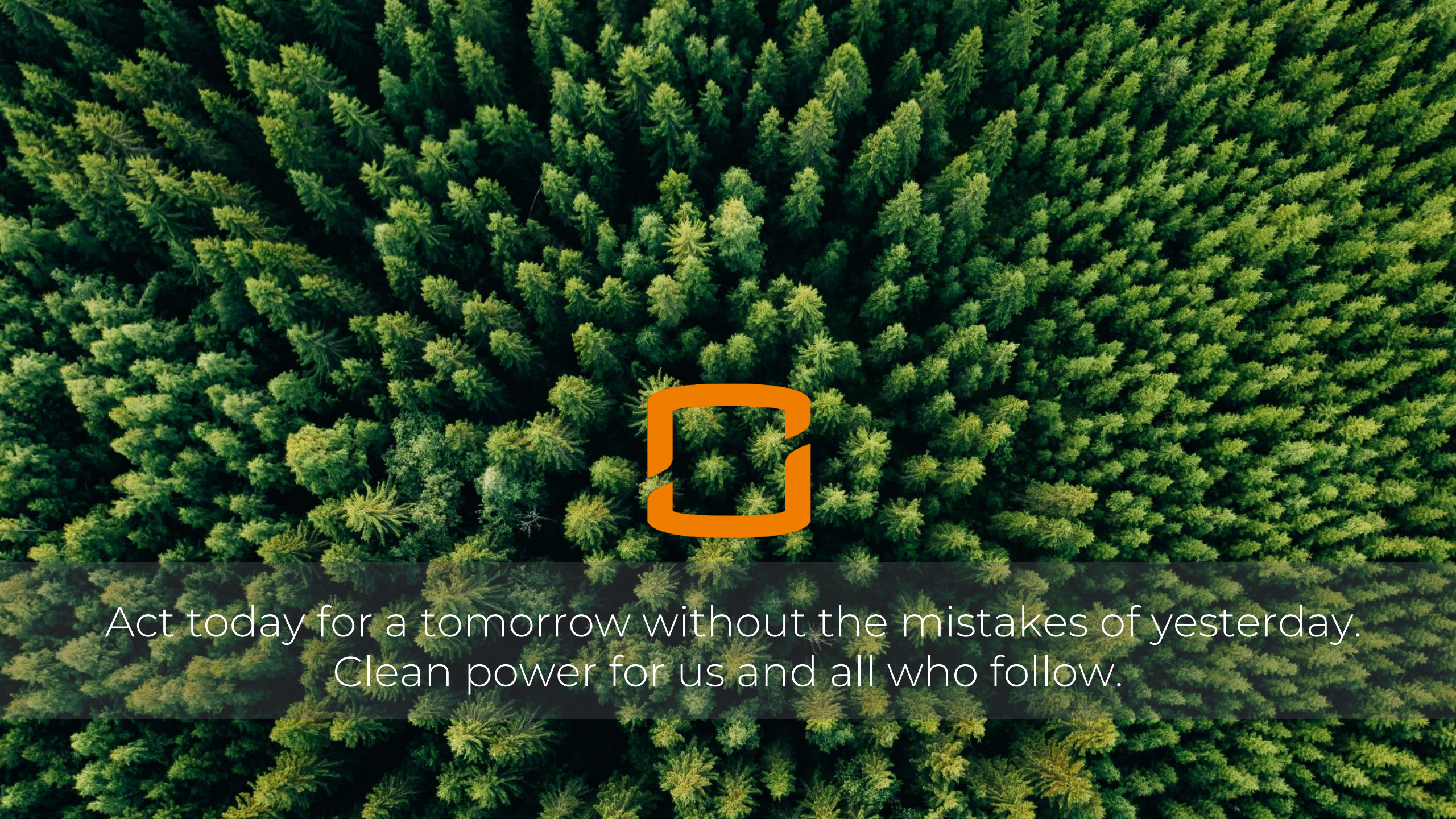

Act today for a tomorrow without the mistakes of yesterday.
Clean power for us and all who follow.

SUNGROW

POWER HOUR

SG250HX

THE WORLD'S MOST POWERFUL STRING INVERTER

CLEAN POWER FOR ALL

+60 COUNTRIES
+20 local subsidiaries
+50 service outlets

+100 GIGAWATT
Deployed
worldwide

17.1 GIGAWATT
Shipped PV inverters
in 2019

+15%
Global Market
Share

100% BANKABLE
The world's most bankable
inverter brand (Bloomberg)

1.7 BILLION EUR
Global Sales Revenue
in 2019

NO.1
Largest PV inverter
R&D team

99%
Efficiency of PV
inverters

The World's Most Powerful String Inverter

Built by Münch Energie with
25 of Sungrow's SG250HX

20°C mounted-inclination
180°C azimuth (south)

Completion date
May 2020

Plant area
6,5 hectares

Capacity
6,5 MWp

Germany
Gumpersdorf

SG250HX

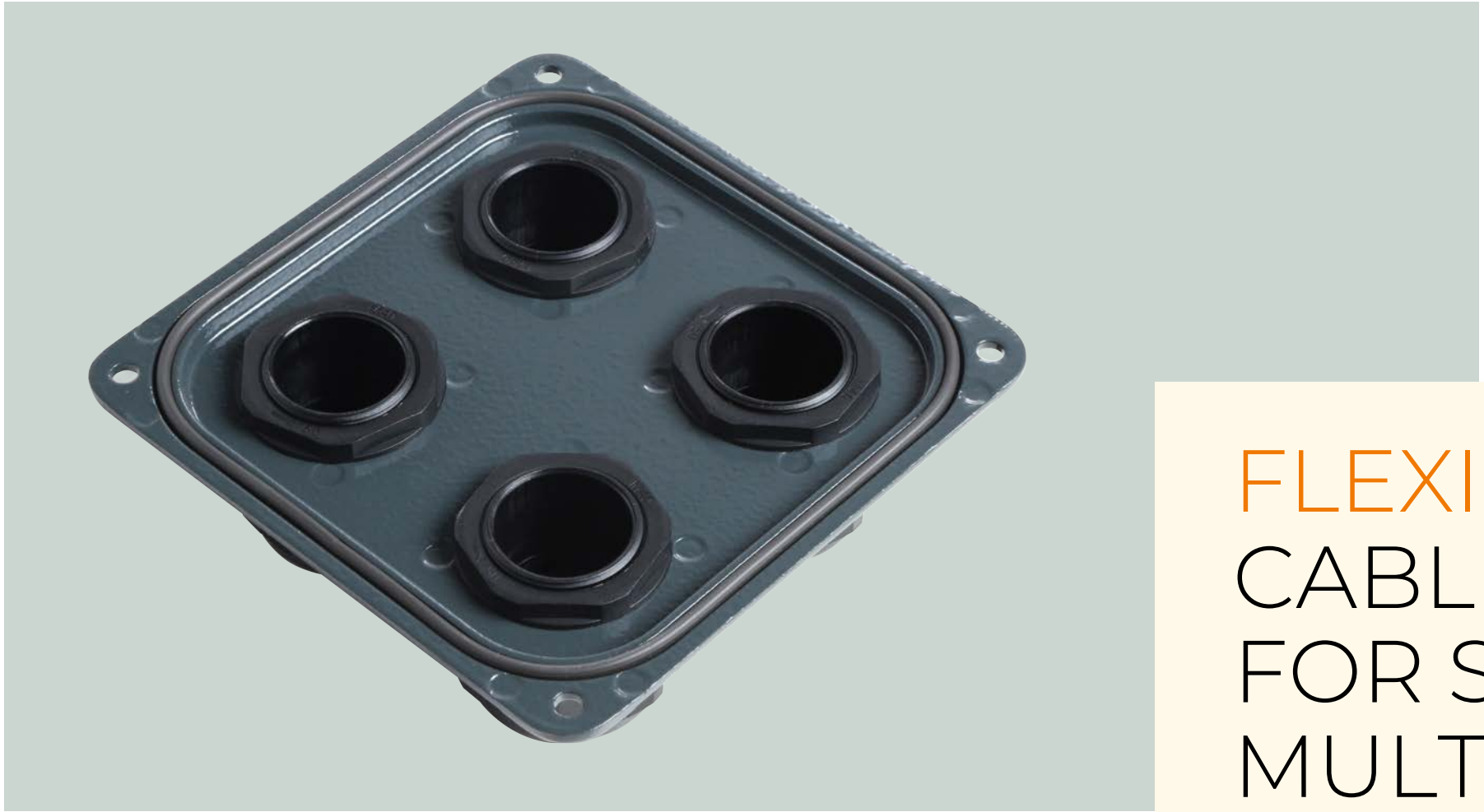
- 1500V DC
- Leading Technical Tendency in Industry
- High reliability
- Easy O&M
- High yielding
- Optimized CAPEX

SG250HX

- Compatible with bifacial modules
- Patented Anti-PID function
- PLC communication
- String monitoring & IV curve scnning
- Grid Support – Q@night function, PF ± 0.8 adjustable
- IP66 & C5 Anti-corrosion

SUNGROW

X Plate

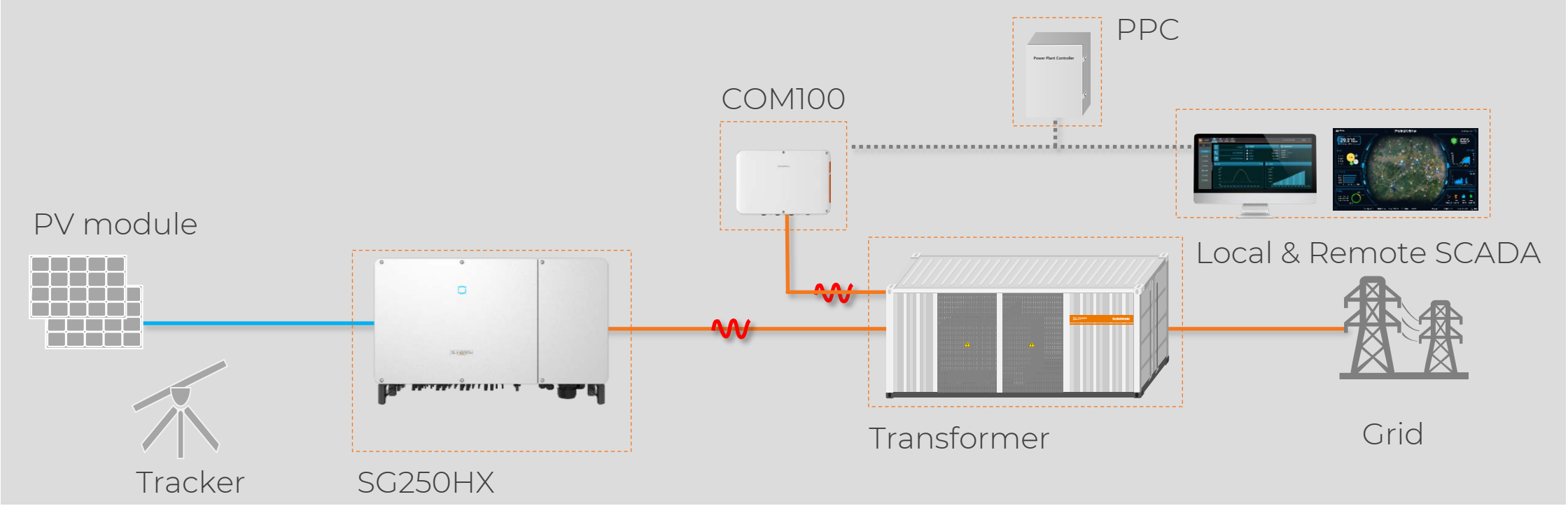


FLEXIBILITY IN CABLE ROUTING, FOR SINGLE OR MULTI CORE

CAPEX SAVING

CAPEX SAVING

SG250HX Block Design

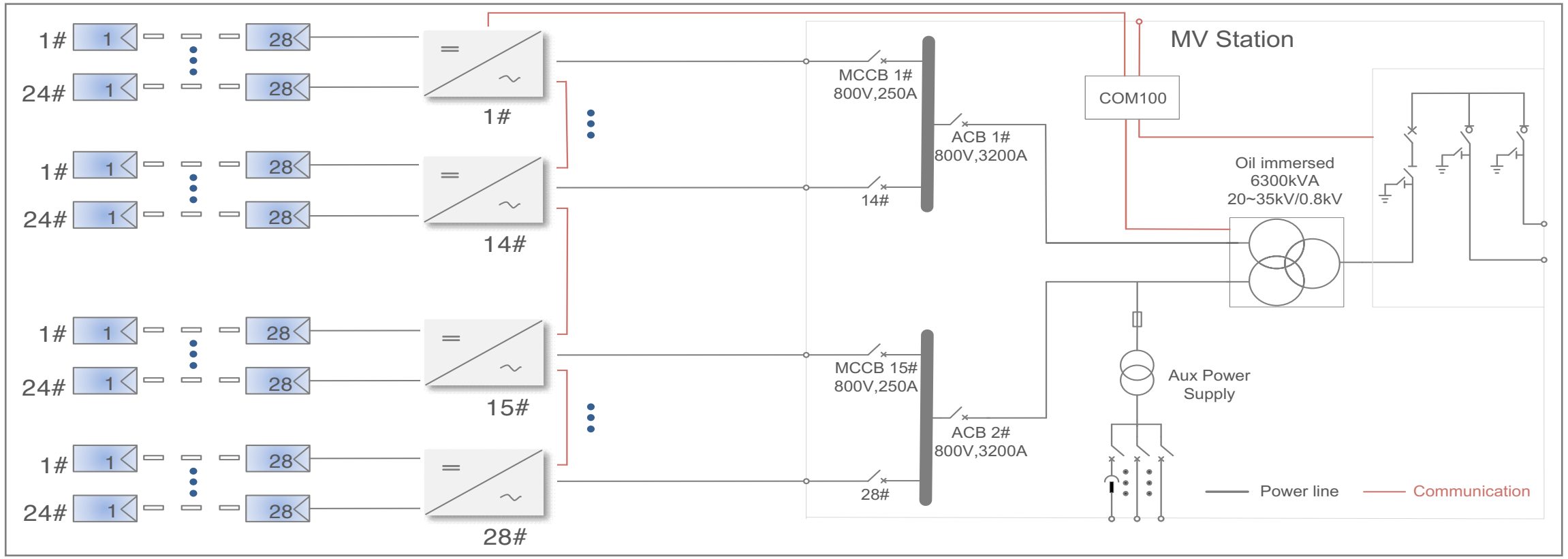


- Integrated MV Station
- Fiber optic cable

- PLC communication
- Integrated power supply for tracker

CAPEX SAVING

SG250HX – 6.3MW Single Line Drawing



28 PV modules/string
PV rack design: 4X14

28 units of SG250HX in one 6.3 MW block

LV double split transformer

CAPEX SAVING

Block Size Solutions

AUX 奥克斯

華暘變壓器 HUAPENG TRANSFORMER

ABB

ORMAZABAL velatia

General data	Ambient temperature	-25~40 ℃
	Altitude	1000 m (>1000m optional)
MV Station Input	Rated/Max Input power	6300 kVA
	Rated Input voltage	800 V
	Power frequency	50 Hz / 60 Hz
	Max input current	5040 A
MV Station Output	Norminal output voltage	33 kV
	Optional Voltage Range	20~35 kV
	Nominal Current	122 A
LV Switchboard	Switch	MCCB, 800V, 250A, 28Units
MV Transformer	Rated power	6300 kVA / 33kV / 0.8-0.8kV
	Tap changer	0,±2*2.5%
	Vector group	Dy11y11
	Oil type	Mineral oil PCB free
	Protection	Oil level contact, Oil temperature contacts, Pressure relief contact, Gas relay contacts
MV Switchgear	Configuration	1 load switch module 1 cable connection module for ring connection 1 circuit-breaker for transformer protection
	Rated voltage	36 kV
	Rated normal current	630 A
	Short circuit breaking current	20 kA

OPEX SAVING

OPEX SAVING

Tier 1 Level Critical Components Guarantees

SG250HX

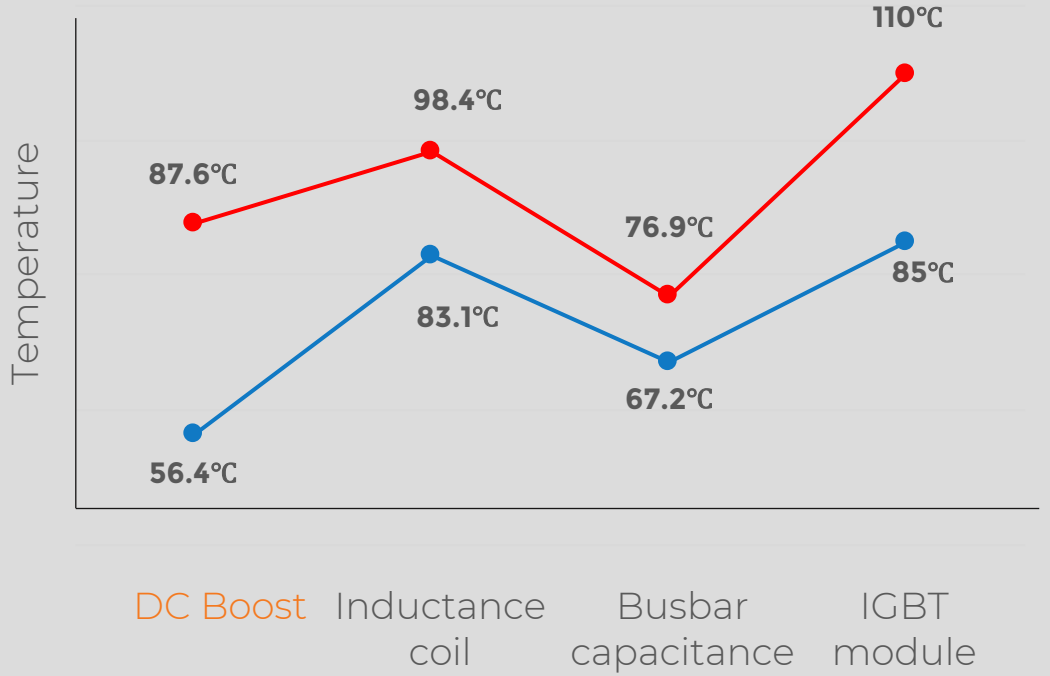
- 25 Years Designed Lifetime
- 0.3% Failure Rate

TOSHIBA · NXP · Microsemi · Texas Instruments · XILINX · BROADCOM · life.augmented · Vincotech · Infineon · LEM · ALTERA · ANALOG DEVICES AHEAD OF WHAT'S POSSIBLE™

OPEX SAVING

Smart Forced Air Cooling guarantees 25 years plus stable working

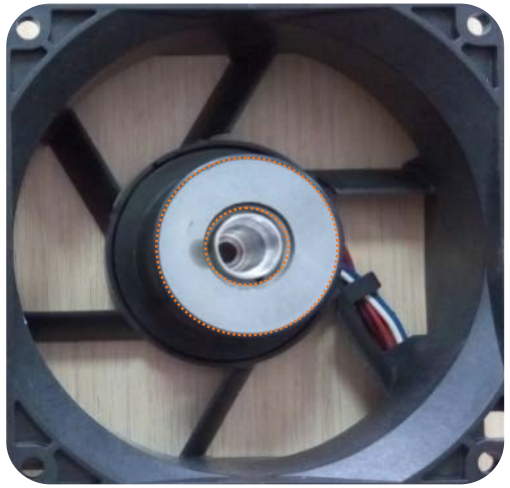
- IP68 Fan, Smart speed control
- Separated electrical/cooling chamber design ensures high IP level for electrical components



- Forced air cooling inverter: working temperature of DC Boost is 31°C lower than natural cooled inverter
- Electronics component's lifetime will be halved with every 10°C working temp. higher

OPEX SAVING

IP68 Fan with High Reliability, Easy O&M



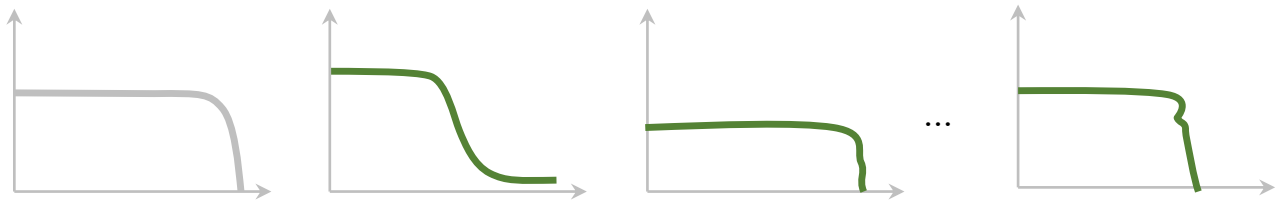
IP68 Protection degree	**25 years more** Designed Lifetime	**1 minute** Quick replacement
PCB & coils Whole sealing	100,000 hours of service life	Slide & Swap design

OPEX SAVING

Fast and Convenient Online IV Scanning

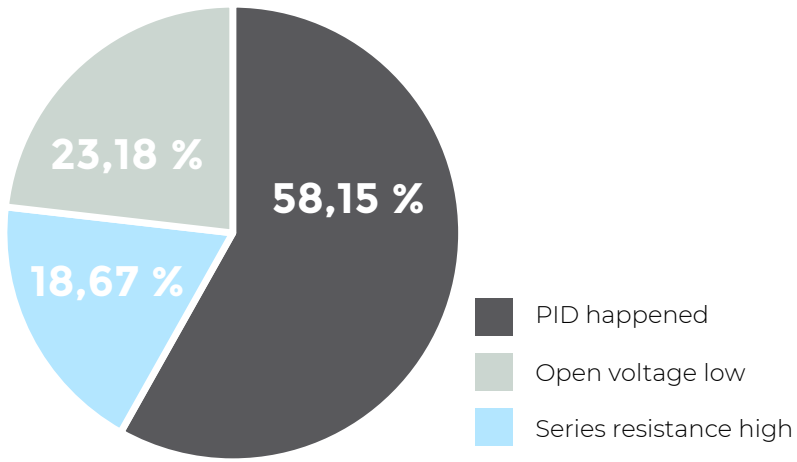
IV curve scanning » IV curve analysis » Generate Report

Curve analysis



Patented diagnosis algorithm for potential failure or risk listed in below :shadow cover, dust cover, dirt cover, diode short circuit, module mismatch, PID, zero string current, etc.

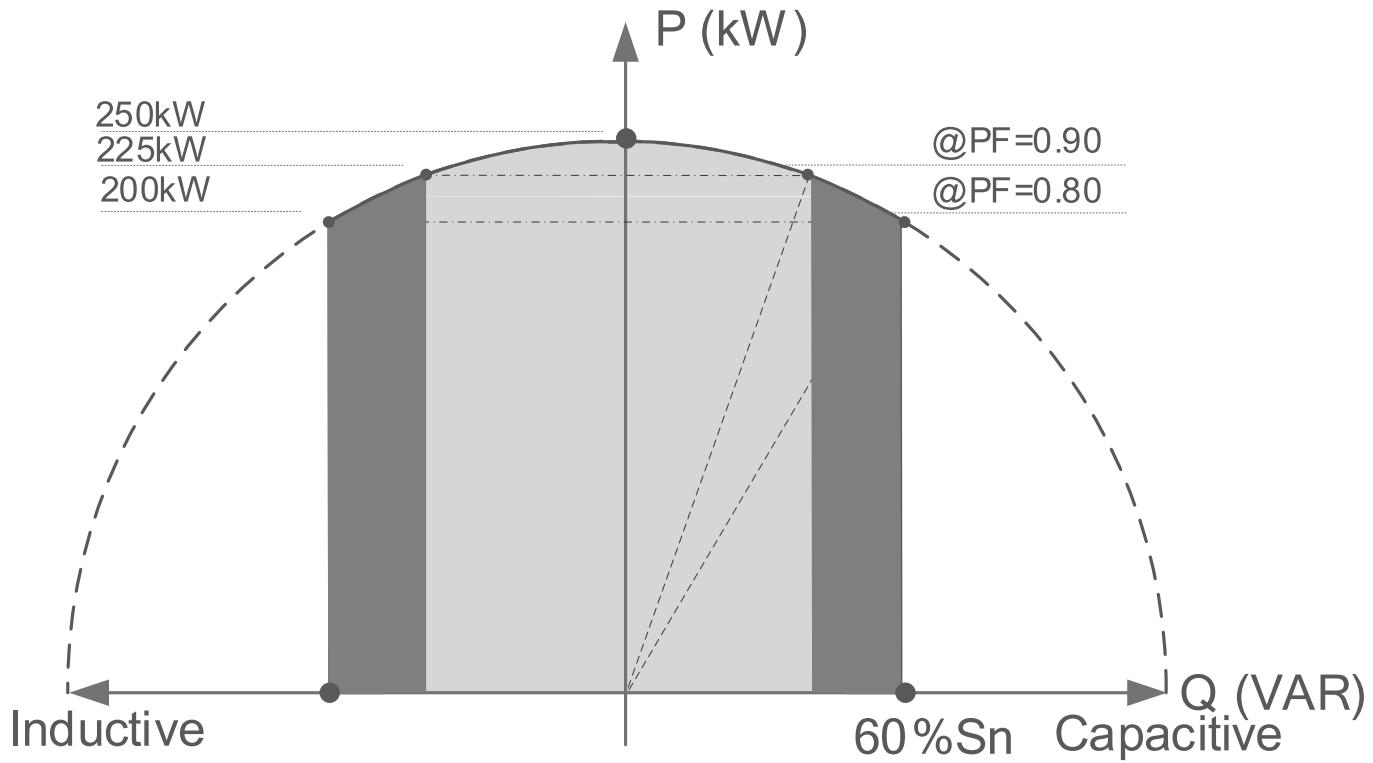
Diagnostic report



String inverter health diagnosis will be completed within 15 minutes for 100 MW project

OPEX SAVING

Grid Support – Wide PF Adjustment Range



SG250HX Reactive power PQ curve

Greater Reactive Capacity

The maximum reactive power output of the inverter reaches 60% of the apparent power, power factor ±0.8 adjustable, effective grid support

Effective Grid Support

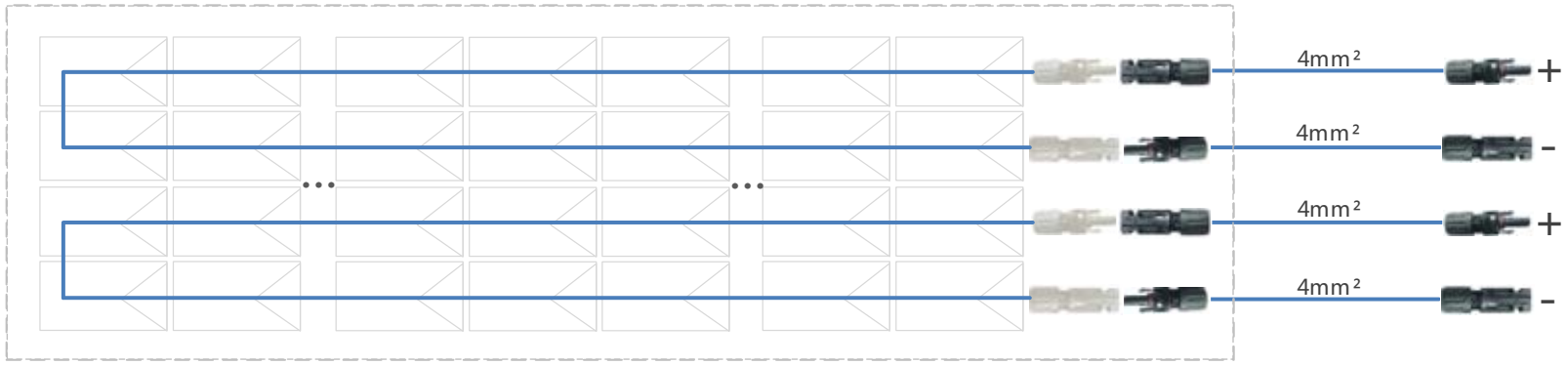
Achieving quick response to reactive power compensation by solar inverters reduces complexity of dispatching

HIGH YIELD

HIGH YIELD

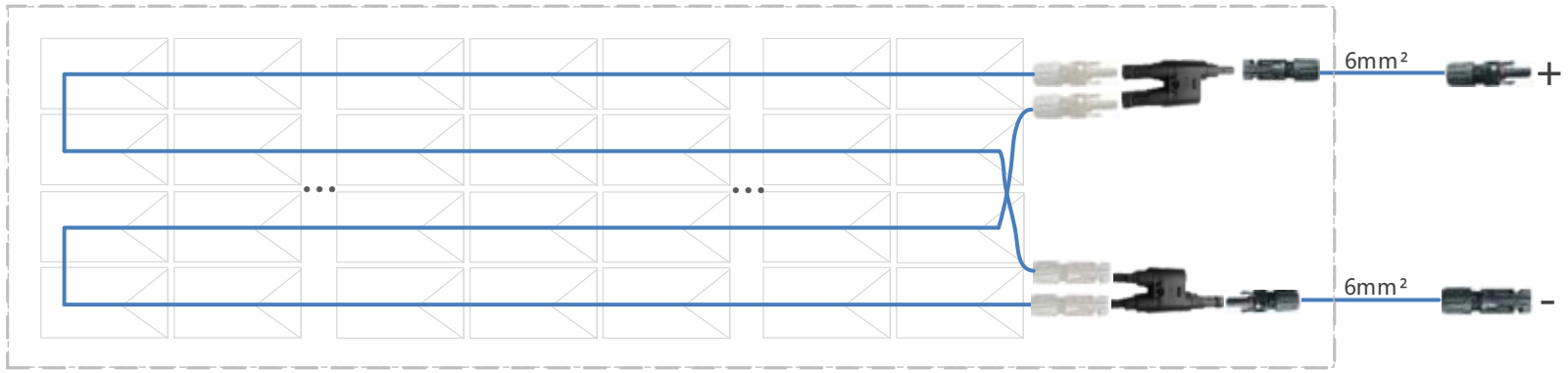
Support 2-in-1 Design to increase DC/AC ratio

Traditional solution



Traditional solution
“ ” design
4* MC4
4* 4mm² output wire

2 string-1 Input solution

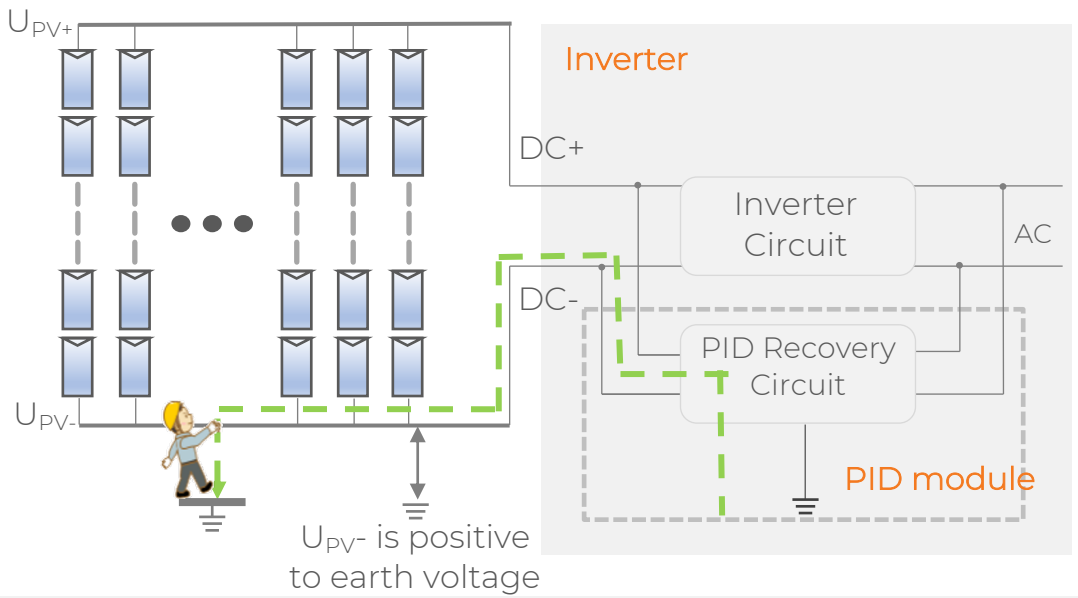


2 in 1 solution
“ ” design
2* MC4
2* “Y” terminal
2* 6mm² output wire

HIGH YIELD

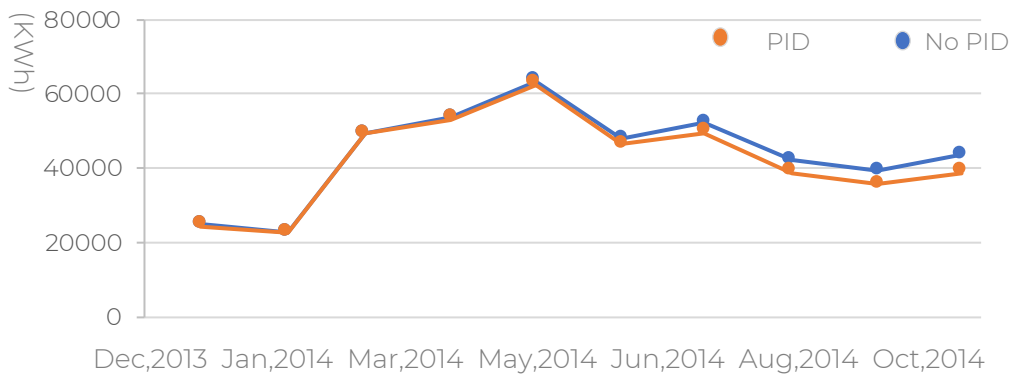
Patented Anti-PID Function, Increase Power Generation

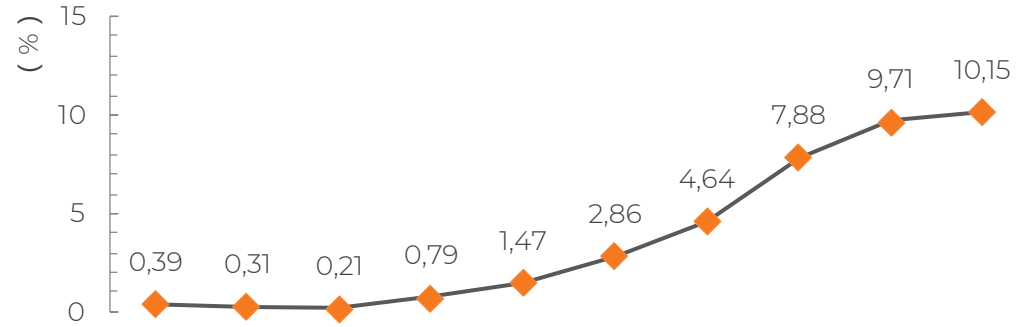
SG250HX = Traditional inverter + PID



With integrated Anti-PID & PID recovery function, anti-PID control is also integrated inside inverter;

24/7 PID protection





With PID Recovery function , yield increases by more than 10%; Sungrow anti-PID solution can effectively repair the degraded PV modules

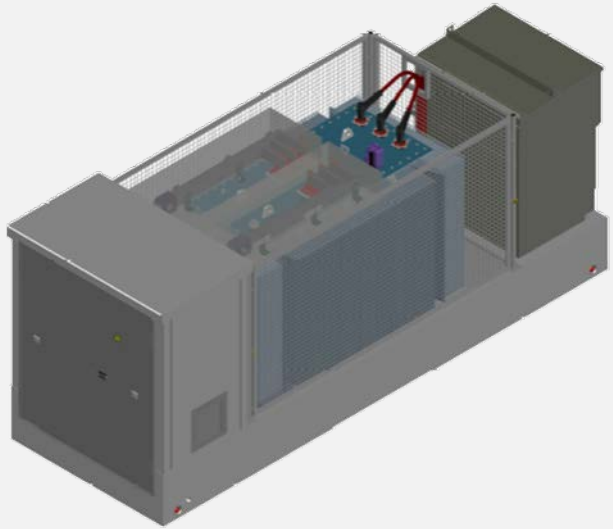
SYSTEM SOLUTION

INVERTER STATION
INTEGRATION PARTNER

Central inverters

1500V string inverters

MV PARTNER



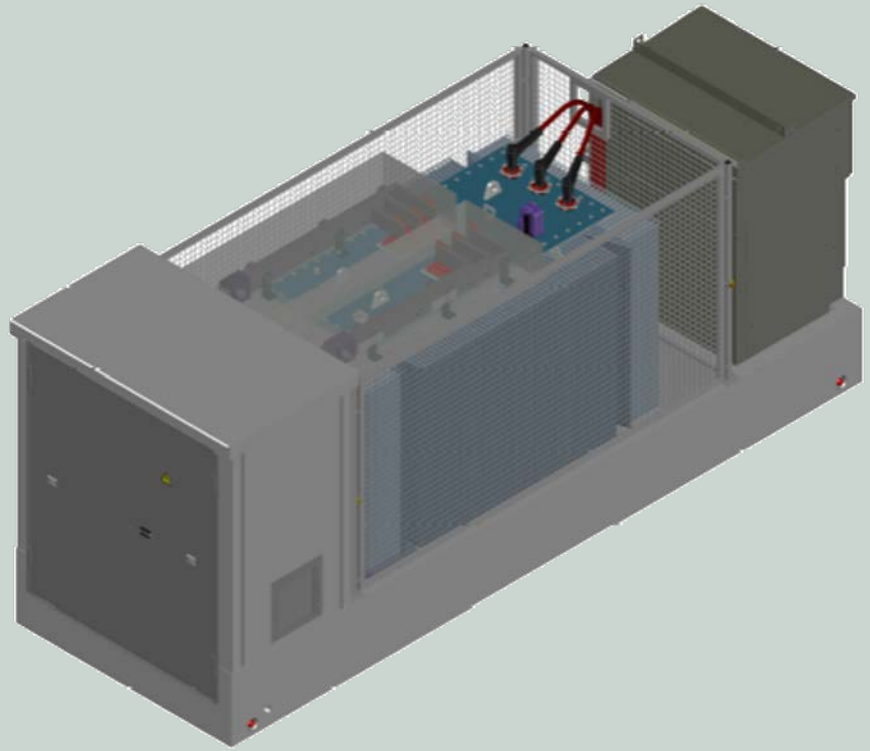
MV skid soutions

INVERTER STATION
ABOUT MEINS

- Spanish company in Renewable Energy industry
- Design, Development and Manufacturing of tailored solutions
- Own factory in Palencia/Spain
- Provision of MV station + integration of transformer
- Supply of 900 MW in more than 20 countries
- Engineering, Manufacturing, Logistics Service and Commissioning

SUNGROW-MEINS
STRING INVERTER SOLUTION

- Tailored design
- Concrete enclosure/shelter
- LV panel + MV Switchgear + Power Transformer
- High manufacturing capacity and competitive leadtime
- Full test on factory previous to departure
- Internal Arc Fault compliance
- Rated voltage up to 40.5 kV



KEY STATS

SG250HX

- More than 2,800MWs of orders received already
- More than 300MWs already fully operational
- Present in and fully certified for all key markets
- On the market for 6+ months already
- Typical Sungrow string inverter failure rate at 0.3%
- Calculated MTBF in excess of 25 years

CLEAN POWER FOR ALL

www.sungrowpower.com