



# SMA Repowering: simply MORE

Repowering Compatibility Guide





# Trust your plant repowering to SMA



SMA understands the value of high plant inverter availability and inverter reliability. Over time, inverter manufacturers may exit the renewable market or discontinue spare parts for legacy inverters. This leads to long inverter downtimes, expensive repairs, and low availability when a legacy inverter needs to be fully replaced or requires long-lead time spare parts replacements. Repowering with SMA allows owners and operators to have a proactive replacement inverter strategy to ensure long-time plant performance, and SMA's seniority in the market provides peace of mind that service and support for your PV plant will be there for the long haul.

## Some of the most common OEM examples and SMA solutions

Technical Data	Power Electronics Freesun FS1001IH	14x SHP Peak3 100 - 20	Bonfiglioli RPS TL 1460	18x SHP Peak3 100 - 20	Emerson SPV 2400	16x SHP 100- 20
Input (DC)						
MPP voltage range $V_{DC}$ (@ 25°C)	467-900 V	512-1000 V	500-875 V	512-1000 V	510-800 V	502-1000 V
Max. input voltage $V_{DC, max}$	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Max. input current $I_{DC, max}$	2000 A	2520 A	2450 A	3240 A	2800 A	2880 A
Output (AC)						
AC voltage	330 V	347 V	330 V	347 V	340 V	340 V
Nominal AC power @ $\cos \phi = 1$	1000 kW	1000 kW	1283 kW	1283 kW	1410 kW	1410 kW
Nominal apparent AC power	1000 kVA	1000 kVA	1283 kVA	1283 kVA	1410 kVA	1410 kVA
Replace existing nameplate power		yes		yes		yes
Reuse existing transformer		yes		yes		yes

# SMA can repower nearly any legacy PV plant

Repowering engineering can be challenging. The technical aspects include matching power capacity, meeting regulatory requirements, and minimizing operational expense. SMA has developed this repowering compatibility guide for common legacy inverter models across the international PV market. This guide gives owners and operators an introduction to some of the legacy inverters on the market that can be replaced with SMA inverters to increase plant availability. SMA has the experience and expertise to customize a repowering solution for nearly any legacy PV plant. When determining an effective solution, repowering engineers must analyze MPP input voltage and current, derating of PV panels over the lifetime of the plant, output voltage, short circuit current, local installation requirements, and transformer

integration capabilities. This guide compares these key parameters from legacy inverters to the industry-leading SMA inverter, saving operators time and money.

## Being ahead of the game

When dealing with long-lead-time spare parts or managing inverters from an OEM that has exited the market, having a proactive repowering plan for your PV plant is crucial to long term success. An unfortunate reality in the PV industry is that some OEM inverters do fail before meeting their lifespan of 20, 30, or more years of projected operation. When a major failure occurs, operators and owners that have begun a proactive repowering strategy with SMA will have their inverters on site operational and begin their needed

repowering strategy, or will have an inverter solution plan in place to be executed immediately to maximize PV plant performance.

**Learn more at [SMA-Solar.com](http://SMA-Solar.com) or contact us directly at [repowering@sma.de](mailto:repowering@sma.de)**

2x Refusol 500k	SC 2200	6x Power-One PVI-330.0-TL	SC UP	3x Ingeteam Ingecon Sunpower Max 1640 TL	2x SC UP	Schneider CS 2400	SC UP
460-850 V	460-950 V	485-850 V	496-950 V	915-1300 V	897-1325 V	900-1500 V	880-1325 V
950 V	1000 V	1000 V	1000 V	1500 V	1500 V	1500 V	1500 V
2000 A	3960 A	4428 A	4750 A	6000 A	6400 A	2481 A	3200 A
315 V	315 V	320 V	320 V	630 V	630 V	600 V	600 V
1000 kW	1000 kW	1980 kW	1980 kW	4911 kW	4911 kW	2200 kW	2200 kW
1000 kVA	1000 kVA	1980 kVA	1980 kVA	4911 kVA	4911 kVA	2400 kVA	2400 kVA
yes			yes		yes		yes
yes			yes		yes		yes



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