



EFASOLAR 1500V Series

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EFASOLAR 1500V Series with increased power density is especially tailored for multi-megawatt PV power plants. With innovative 1500 V technology and extended MPPT range, the inverters have more power and a higher efficiency allowing a truly secure return on investment.

1500V Series includes advanced grid support features ensuring an excellent performance and authentic grid dispatch integration.

Customer Benefits

- DC input voltage up to 1500 V
- Increased power density in the same cabinet
- Higher efficiency
- Compatible with 1500 V PV modules
- DC and AC protection

Key Benefits

- Flexible equipment for multi-megawatt power plants
- Reactive power compensation at night
- Grid dispatch integration
- All protective devices and features included
- Extend support through Efacec international structure

Main Features



Grid Support

- Q, P control inbuilt
- Grid support features
- Grid code compliance
- IEC 62116, BDEW standards
- LVRT capability



Compact Design

- Optimized for PVStation
- Increased power density in the same cabinet
- Robust design for enhanced O&M
- Fast & easy field installation



PV Interface

- Extended MPPT range
- Input voltage up to 1500 V
- Configurable DC fuse protected inputs
- Individual current measurements



Reliability Focus

- Extended temperature range
- High quality components
- Fast & easy replacement
- Fast troubleshooting
- Kaizen manufacturing



Power Plant Controller

- Dynamic P, Q control modes
- Grid dispatch integration
- Open communication protocol
- HMI remote access
- Integration in monitoring software solutions



After Sales

- Warranty extension options
- Service & availability contracts
- Customer service portal & hotline
- Extended support using Efacec international structure

Technical Information

Electrical - EFASOLAR 1500V Series		†EFASOLAR 1200HV	†EFASOLAR 1300HV	†EFASOLAR 1400HV	†EFASOLAR 1500HV
Input					
Maximum power	1520 kW	1641 kW	1763 kW	1915 kW	
Minimum voltage	740 V	795 V	855 V	930 V	
Maximum voltage	1500 V				
MPPT range	746 V - 1250 V	805 V - 1250 V	865 V - 1250 V	940 V - 1250 V	
Maximum current	1600 A				
Number of independent MPP inputs	1				
Number of DC inputs ⁽¹⁾	6 inputs equipped with fuses				
Output					
Rated power (30 °C / 50 °C)	1195 kVA / 1058 kVA	1291 kVA / 1142 kVA	1386 kVA / 1227 kVA	1500 kVA / 1334 kVA	
Rated voltage ⁽²⁾	500 V	540 V	580 V	630 V	
Rated current (30 °C / 50 °C)	1380 A / 1225 A				
Frequency	50 Hz / 60 Hz				
Maximum current	1380 A				
THD	< 3%				
Power factor ⁽³⁾ /Displacement power factor ⁽⁴⁾	1,0 / 0,8 inductive to 0,8 capacitive				
Required grid type	IT grid				
Isolation transformer	No				
Efficiency					
Maximum ⁽⁵⁾	98,7 %				
Euro-efficiency ⁽⁵⁾	98,5 %				
CEC efficiency ⁽⁵⁾	98,5 %				
Protective devices					
DC disconnect device	Motor-drive switch disconnecter				
AC disconnect device	Circuit breaker				
DC overvoltage protection	Type II surge arrester				
AC overvoltage protection	Type I surge arrester				
Auxiliaries overvoltage protection	Type II surge arrester				
Ground fault monitoring	•				
Overvoltage	•				
Undervoltage	•				
Overfrequency	•				
Underfrequency	•				
Anti-islanding	•				
Reverse polarization	•				
Short circuit on the output	•				
Overtemperature	•				
Asymmetrical current	•				
General data					
Ambient temperature	-10 °C ... +50 °C / +14 °F ... +122 °F				
Max. permissible value for relative humidity (noncondensing)	15% ... 95%				
Cooling concept	Air forced cooling				
Auxiliaries power supply	230 V				
Max. self-consumption (operation) / self-consumption (night)	1300 W / <85 W				
Color	RAL 7035				
Altitude for rated conditions / Maximum operating altitude above sea level ⁽⁶⁾	1000 m / 3000 m				
Dimensions (WxDxH)	2200 x 610 x 2000 mm / 86,6 x 24 x 78,7"				
Weight	1800 kg / 3968 lb				
Protection degree	IP20 / NEMA 2				
Protective class	I				
Standards					
CE marking	Yes				
Safety/EMC	EN 62109-1, EN 62109-2 / EN 61000-6-2, EN 61000-6-4				
Grid interface	IEC 62116, BDEW, P.O. 12.3, Arrêté 23-04-2008, ABNT NBR 16149, ABNT NBR 16150, South African Grid code, Chilean Grid Code				
Interfaces					
Local Human Machine Interface	4.3" Color, touch screen				
Remote interface	Web Virtual HMI				
Communication protocols	Modbus TCP/RTU				
Data storage	Datalogger				
Optionals					
	Remote monitoring software				
	Reactive energy compensation module				
	Maintenance service				
	Warranty extension				

• Base feature

(1) - Other configurations can be used.

(2) - Other AC voltage, DC voltages and power classes can be configured.

(3) - Power factor > 0,98 at rated output voltage and power load > 15%.

(4) - The adjustable range can be extended and other values can be configured.

(5) - Efficiency measured without auxiliary power supply consumption and at input and output rated voltage.

(6) - Please consult Efacec with the specific operating conditions in order to characterize an eventual derate with altitude.



Efacec Energia, Máquinas e Equipamentos Eléctricos, S.A.

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