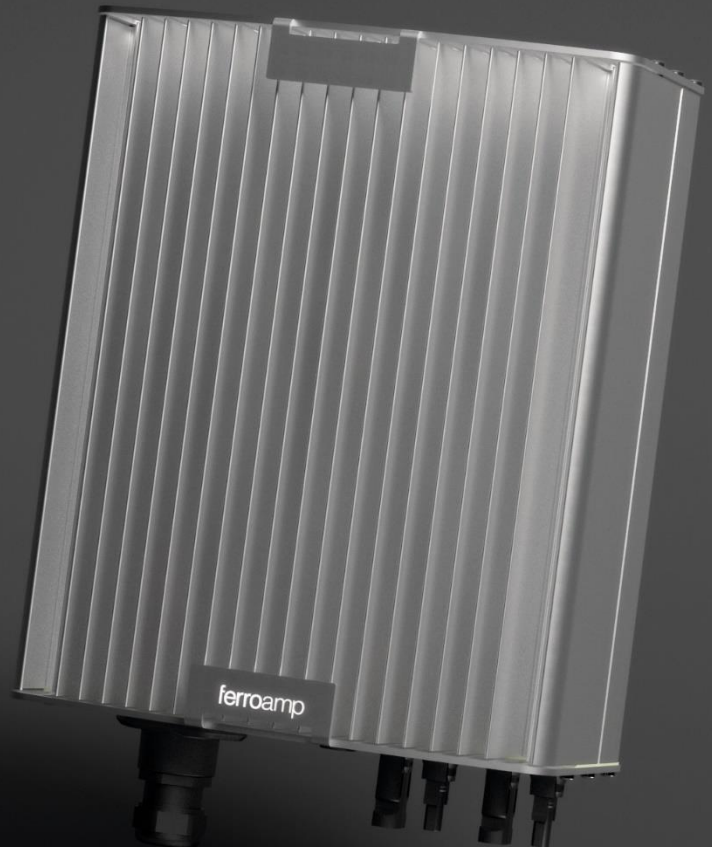


Solar String Optimizer

Single 8 / Dual 16 kW

String level optimization for DC grids

- String level MPPT and monitoring
- State of the art efficiency 99,5%
- Integrated safety shut down
- Fast installation with less cables



The new smarter way of building PV systems

Ferroamps second generation of Solar String Optimizers brings a new flexible way of planning, installing and maintaining PV systems. Each optimizer has its' built in MPP tracker and safety functions so that an installation can be built with any number of strings with maximum safety and also expanded when the need grows. Silicon carbide technology enables a peak efficiency of 99,5% for maximum usage of the solar energy. The optimizer is designed for interfacing directly to Ferroamps DC nanogrid architecture that enables solar energy to be stored or used directly on the DC side for optimum flexibility and minimal losses. The optimizer can also work in other DC grid applications where solar energy is used. Integrated power throttling to zero allows the optimizer to be used in battery charging applications and off-grid systems. The optimizer is designed for compliance with coming stricter requirements in EMC standards for solar installations.

SSO Single / Dual¹⁾

ferroamp

8 / 16 kW

| | SSO - Solar String Optimizer |
|--|---|
| PV Input | SSO Single |
| Maximum PV input power | 8 000 W |
| Absolute maximum input voltage | 1 000 V |
| Number of MPP trackers | 1 |
| Maximum MPP current | 12.5 A |
| MPPT operating range | 100 – 720 V |
| Starting voltage | 100 V |
| String inputs | 1 |
| DC Output | |
| Nominal EnergyHub DC grid voltage | 760 V |
| EnergyHub DC grid voltage range | 740 – 780 V |
| Voltage range for other DC grid applications ²⁾ | 400 – 800 V |
| Maximum DC grid output current | 12.5 A |
| DC grid connection | 3-wire (L+, L-, PE) |
| Maximum DC grid fuse | 25 A gPV |
| Max efficiency | 99,5% |
| European weighted efficiency | 99,2% |
| System communication | Narrow band power line communication (PLC) |
| Physical | |
| Dimensions H x W x D (including connectors) | 360 x 250 x 150 mm |
| Weight | 7.0 kg |
| Color | Natural anodized |
| Installation | |
| Ambient temperature ³⁾ | -25°C – 45°C |
| Humidity; Maximum altitude | 0 – 100% RH; 2000m |
| Degree of protection | IP 65 |
| PV connector | MC4 |
| DC bus output connector | Push in, 2,5 - 4 mm ² , max cable diameter 6 - 12 mm |
| System design | |
| Number of Solar String Optimizers per DC grid ⁴⁾ | 1 – 64 |
| Maximum DC bus cable length ⁴⁾ | 200 m |
| Output voltage during fault, shut down or disconnected from DC-bus | 0 V |
| Compliance | |
| LVD | EN 62109-1, EN 62109-2 (protective class I, overvoltage cat. II) |
| EMC | EN 61000-6-2, EN 61000-6-3, CISPR 11 Ed.6.2 2019 Class B |
| RoHS | Yes |
| Protection functions | PV polarity reversal, DC polarity reversal, DC bus short circuit, Overtemperature, Residual current breaker (30 mA), String insulation monitoring |

- 1) Product in development, availability to be announced at product launch.
- 2) Consult Ferroamp prior to using SSO in other DC grid applications. Input MPP voltage should have 20 V margin to DC voltage.
- 3) Output power may be derated if ambient temperature exceeds 45°C.
- 4) Consult Ferroamp for design guidelines for projects exceeding 64 SSOs or 200 m cable length.

Items included in delivery are: SSO, wall mounting bracket, ferrules, MC4 connectors, user and installation manual

