E-SPI18.5K3P

# EURONET SOLAR PUMP INVERTER – 18.5kW

## Three-Phase 380V Solar Pump Inverter | MPPT | PID




| | |
|---|---|
| MOTOR POWER<br>**18.5KW / 25HP** | NOMINAL CAPACITY<br>**44 KVA** |
| MAX PV INPUT<br>**900VDC** | MPPT RANGE<br>**450–600VDC** |
| OUTPUT CURRENT<br>**37A** | AC INPUT<br>**3PH 380–440V** |

### OVERVIEW

The EURONET E-SPI18.5K3P is a 18.5kW three-phase solar pump inverter for large agricultural estates, industrial water treatment and off-grid community infrastructure. It drives 18.5KW / 25HP pump motors from a PV array of up to 900VDC or from 380V three-phase AC, with built-in MPPT at over 99% efficiency across 450–600VDC. SVC control delivers 150% starting torque at 0.5Hz for reliable deep-well start-up, and the 44 KVA nominal capacity supports 37A output current. Conformal coating, RS-485 Modbus, IEC 61800-5-1 safety and CE marking suit demanding off-grid deployments.

### KEY FEATURES

**44KVA / 37A Output**
Powers 18.5KW / 25HP motors for large-scale installations with zero derating at rated load

**900VDC PV Input**
Accepts up to 900VDC, with 550–750VDC VOC and 450–600VDC MPPT for three-phase string arrays

**SVC 150% Starting Torque**
Delivers 150% torque at 0.5Hz for reliable start of high-power submersibles under heavy head

**Full Protective Functions**
Short-circuit, phase loss, overcurrent, overvoltage, overheat, overload, underload and weak light

**Built-in PID Control**
Simplifies closed-loop pressure or flow control in pressurised systems without external controllers

**Shared Platform with 15KW**
Same 310×165×195mm footprint and 10mm² cable spec as the 15KW model for consistent system design

### TECHNICAL NOTE

Model E-SPI18.5K3P. Motor 18.5KW / 25HP; nominal capacity 44 KVA. Input AC 3PH 380V (-15%) to 440V (+10%) / 900VDC PV; VOC 550–750VDC; MPPT 450–600VDC; start-up 300–900VDC (adjustable). Input current 46.7A, output current 37A. Control SVC / V/F, 0.5Hz/150% starting torque; overload 150%/60s, 170%/12s, 190%/1.5s. RS-485 Modbus. 310×165×195mm (H×W×D), 5.5kg.

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# E-SPI18.5K3P

## PRODUCT TECHNICAL SPECIFICATIONS

| PARAMETER | SPECIFICATIONS |
|---|---|
| **GENERAL** | |
| **Model** | E-SPI18.5K3P |
| **Motor Power** | 18.5KW / 25HP |
| **Nominal Capacity** | 44 KVA |
| **Phase** | Three-phase 380V |
| **PV INPUT** | |
| **Max PV Input** | 900VDC |
| **PV VOC** | 550–750VDC |
| **MPPT Range** | 450–600VDC |
| **MPPT Efficiency** | >99% |
| **Start-up Voltage** | 300–900VDC (adjustable) |
| **AC INPUT** | |
| **AC Input** | 3PH 380V (–15%) to 440V (+10%) |
| **Input Current** | 46.7A |
| **PV / Grid Switching** | Automatic, with optional external kit |
| **OUTPUT** | |
| **Output Current** | 37A |
| **Output Frequency** | 0.1–500Hz |
| **Overload** | 150%/60s; 170%/12s; 190%/1.5s |

| PARAMETER | SPECIFICATIONS |
|---|---|
| **CONTROL & COMMUNICATION** | |
| **Control Mode** | SVC / V/F |
| **Starting Torque** | 0.5Hz / 150% (SVC) |
| **Communication** | RS-485 Modbus |
| **Deep-well Rating** | Up to 200 m (range rating) |
| **PID** | Built-in, closed-loop pressure / flow |
| **Protection** | Short-circuit, phase loss, overcurrent, overvoltage, overheat, overload, underload, weak light |
| **PHYSICAL & INSTALLATION** | |
| **Dimensions (H×W×D)** | 310×165×195mm |
| **Net Weight** | 5.5kg |
| **Package** | 400×240×275mm |
| **Cable RST/UVW · PE · PV** | 10mm² · 10mm² · 10mm² |
| **Set Screw** | M5, 2.0–2.5Nm |
| **ENVIRONMENT** | |
| **Operating Temperature** | –10°C to 50°C |
| **Storage Temperature** | –20°C to 60°C |
| **Noise** | 65dBA max |
| **PCB Protection** | Conformal coating |
| **COMPLIANCE** | |
| **Safety** | IEC 61800-5-1 |
| **EMC** | IEC 61800-3 (C3) |
| **Marking** | CE |

**Specifications are subject to change without prior notice.*

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