E-SPI2.2K1P

EURONET SOLAR PUMP INVERTER – 2.2kW

Single-Phase 220V Solar Pump Inverter | MPPT | SVC



MOTOR POWER **2.2KW / 3HP**	NOMINAL CAPACITY **4 KVA**
MAX PV INPUT **450VDC**	MPPT RANGE **250–350VDC**
OUTPUT CURRENT **9.6A**	AC INPUT **1PH 220–240V**

OVERVIEW

The EURONET E-SPI2.2K1P is a 2.2kW single-phase solar pump inverter for agricultural irrigation, household water supply and off-grid rural applications. It drives 2.2KW / 3HP pump motors from a PV array of up to 450VDC or from 220V single-phase AC, with built-in MPPT at over 99% efficiency across 250–350VDC. SVC control delivers 150% starting torque at 0.5Hz for reliable deep-well start-up, and the 4 KVA nominal capacity supports 9.6A output current. Conformal coating, RS-485 Modbus, IEC 61800-5-1 safety and CE marking suit demanding off-grid deployments.

KEY FEATURES

99%+ MPPT Efficiency
Built-in MPPT tracks the 250–350VDC window at over 99% efficiency, even under variable sunlight

150% Starting Torque
SVC delivers 150% torque at 0.5Hz for reliable deep-well pump start-up under heavy loads

200 m Deep Well Rating
Engineered for deep-well applications to 200 m, with cloud-shade adaptation for steady flow

PV / Grid Auto-Switch
An optional external kit adds automatic solar-to-grid switching to keep a 24/7 water supply running

Conformal Coating
Standard internal board coating shields parts from dust, humidity and harsh field environments

RS-485 Modbus
Built-in protocol enables remote monitoring, parameter management and seamless system integration

TECHNICAL NOTE

Model E-SPI2.2K1P. Motor 2.2KW / 3HP; nominal capacity 4 KVA. Input AC 1PH 220V (–15%) to 240V (+10%) / 450VDC PV; VOC 360–430VDC; MPPT 250–350VDC; start-up 160–450VDC (adjustable). Input current 23A, output current 9.6A. Control SVC / V/F, 0.5Hz/150% starting torque; overload 150%/60s, 170%/12s, 190%/1.5s. RS-485 Modbus. 197.5×99×152mm (H×W×D), 1kg.

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E-SPI2.2K1P

PRODUCT TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS
GENERAL	
Model	E-SPI2.2K1P
Motor Power	2.2KW / 3HP
Nominal Capacity	4 KVA
Phase	Single-phase input
PV INPUT	
Max PV Input	450VDC
PV VOC	360–430VDC
MPPT Range	250–350VDC
MPPT Efficiency	>99%
Start-up Voltage	160–450VDC (adjustable)
AC INPUT	
AC Input	1PH 220V (–15%) to 240V (+10%)
Input Current	23A
PV / Grid Switching	Automatic, with optional external kit
OUTPUT	
Output Current	9.6A
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 · cloud-shade adaptation
PHYSICAL & INSTALLATION	
Dimensions (H×W×D)	197.5×99×152mm
Net Weight	1kg
Package	238×141×207mm
Cable RST/UVW · PE · PV	4mm² · 4mm² · 4mm²
Set Screw	M4, 1.3–1.5Nm
ENVIRONMENT	
Operating Temperature	–10°C to 50°C
Storage Temperature	–20°C to 60°C
Humidity	<95% RH
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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