

# RS THREE-PHASE



## HIGHLIGHTS

- **Maximum efficiency 98.0%**
- **Dual MPPT**
- **Maximum string current 20 A**
- **PV configuration 130%**
- **Aluminium case and IP66 protection level**
- **LCD and status LEDs**

### **Riello Solartech's second generation high performance RS three-phase inverters.**

Extremely compact and lightweight, RS three-phase inverters are available in **6.0, 10.0, 15.0, 20.0, 25.0 and 30.0 kW**.

The new inverters benefit from renewed technology, have a made-in-Italy design, and are built with top-quality components - all the work of the company's Research and Development team. These features guarantee maximum product reliability and achieve high efficiency under all operating conditions.

### **TECHNOLOGY**

To guarantee maximum **configuration flexibility, prolonged energy production, efficiency and string optimisation**, the latest generation of RS three-phase inverters are fitted with features such as a DC-side disconnect switch, type II DC and AC surge arresters, and multiple inputs that converge on two independent MPPT trackers characterised by a wide voltage range. RS three-phase inverters have a natural ventilation system - for models up to 15.0 kW - with adequate heat sinks to ensure maximum heat exchange. Whereas 20.0, 25.0 and 30.0 kW models have forced

ventilation with controlled speed extraction fans in relation to the operating conditions, to minimize leakage. The **digital control for all power stages** guarantees low susceptibility to power disruptions, avoiding undesired disconnection due to variations or micro-interruptions.

### **COMPACT AND ROBUST**

Riello Solartech RS three-phase inverters have a unique, innovative design. The aluminium case makes them particularly lightweight and ensures a real IP66 protection level, suitable for outdoor applications. They are versatile, easy to handle and their assembly and installation is quick and intuitive.

### **INTERACTIVITY AND MONITORING**

The user interface on the front panel has LEDs for indicating DC and AC side status and communications; in addition, there is an LCD divided into several sections that shows: date, time, alarms (if any), type of connection, operating diagram, MPPT1 and MPPT2 voltage/current, power and all instantaneous network parameters. RS three-phase inverters connect via the app or cloud:

- they connect to the app through Bluetooth integrated in the inverter, enabling the user to set up and self-test from a smartphone;
- via Wi-Fi (provided) or an Ethernet card (optional), the inverters can connect to the Internet for data management on the supervision portal, where it is possible to remotely monitor the strings in detail and view the installation's performance.

Finally, through the integrated BUS485 interface it is possible to connect several inverters to a dedicated Datalogger to manage the connection to the portal of the whole plant via Ethernet, with the option of connecting energy meters and environmental sensors.



## OPTIONS

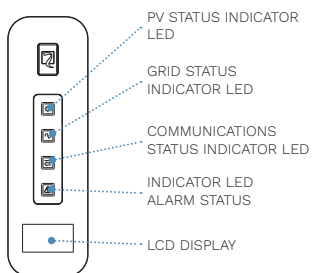
### MONITORING

RS Connect/RS Monitoring  
SunGuard (optional)

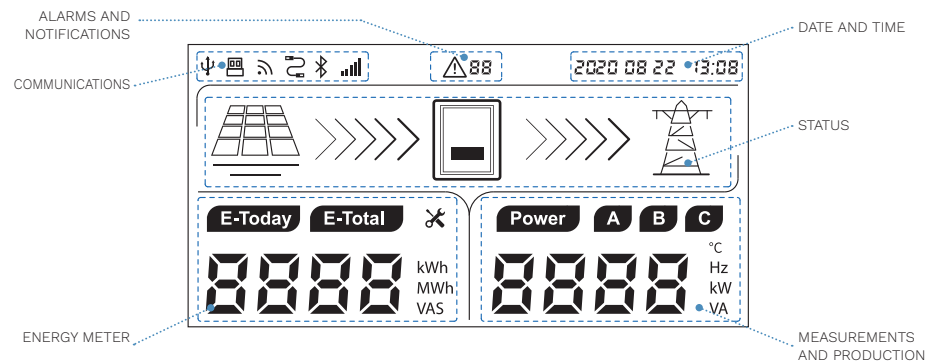
### ACCESSORIES

Ethernet card  
RS Datalogger  
Datalogger Z series

## FRONT PANEL



## LCD DISPLAY



MODELS	RS T 6.0	RS T 10.0	RS T 15.0	RS T 20.0	RS T 25.0	RS T 30.0
<b>EFFICIENCY</b>						
Maximum efficiency [%]	97.8		98.0			
European efficiency [%]	97.2		97.4	97.5	97.5	
<b>INPUT</b>						
Max input voltage [V]	1100					
Nominal input voltage [V]	620					
PV max input power (STC) [%]	130					150
Max input voltage [A]	2x15	15 + 2x15		2x15 + 2x15		2x20 + 2x15
Max short circuit current [A]	2x20	20 + 2x20		2x20 + 2x20		2x25 + 2x18.7
Start-up voltage [V]	180					
MPPT operating voltage range [V]	160 - 1000					
Max number of PV strings	2 (1/1)		3 (1/2)		4 (2/2)	
MPPT number	2					
<b>OUTPUT</b>						
AC active power (nominal) [W]	6000	10000	15000	20000	25000	30000
Max apparent AC power [VA]	6600	11200	16700	22000	27500	33000
Active power max. AC (PF = 1) [W]	6600	11200	16700	22000	27500	33000
Max current AC output [A]	3x10.1	3x17	3x25.3	3x33.7	3x39.8	3x50.2
Nominal voltage AC [V]	380 / 400 / 415, 3W+N+PE					
Nominal mains frequency [Hz]	50 / 60					
Grid frequency range [Hz]	45-55 / 55-65 (configurable)					
Harmonic Distortion (THDi) [%]	<3 @nominal power					
Direct current injection [%]	<0.5 @rated current					
Power factor	> 0.99 nominal power (selectable 0.8 inductive - 0.8 capacitive)					
<b>PROTECTIONS</b>						
DC disconnect switch	Supported					
Anti-islanding protection	Supported					
AC overcurrent protection	Supported					
Short circuit protection	Supported					
DC pole inversion control	Supported					
Surge arresters (VDR)	AC Type II / DC Type II					
Isolation detection	Supported					
String current detection	Supported					
Current leakage protection	Supported					
<b>OVERALL SPECIFICATION</b>						
Type	Transformer-free					
Protection level	IP66					
Night self-consumption [W]	<8					
Cooling	Natural ventilation			Cooling with fans at controlled speed		
Operating temp. range [°C]	-25 to 60					
Relative humidity range [%]	0 to 100					
Maximum operating altitude [m]	4000					
Noise level [dB]	<30			<45		
Dimensions (WxDxH) [mm]	398x190x460					
Weight [kg]	17.5	17.5	19.5	20.5	21.5	20.3
<b>COMMUNICATIONS</b>						
Display	LED + LCD					
Communications	Bluetooth / Wi-Fi (provided) / RS485 / Ethernet (optional)					
Monitoring	APP, Supervisory Portal					
<b>CERTIFICATION</b>						
Safety	IEC / EN 62109-1, IEC / EN 62109-2					
EMC	EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4					
Regulations	CEI 0-21, CEI 0-16, RD 1699, RD 661, RD 413, UNE 206006 IN, UNE 206007-1 IN, NTS Type A version 2.1, UNE 217002, RD 647, UNE 217001					
Warranty	5 years (with possibility of extension)					

The product photos are merely an indication. Due to technical and/or regulatory updates, the product features may change at any time without notice. DATRSTX0Y24BSEN

