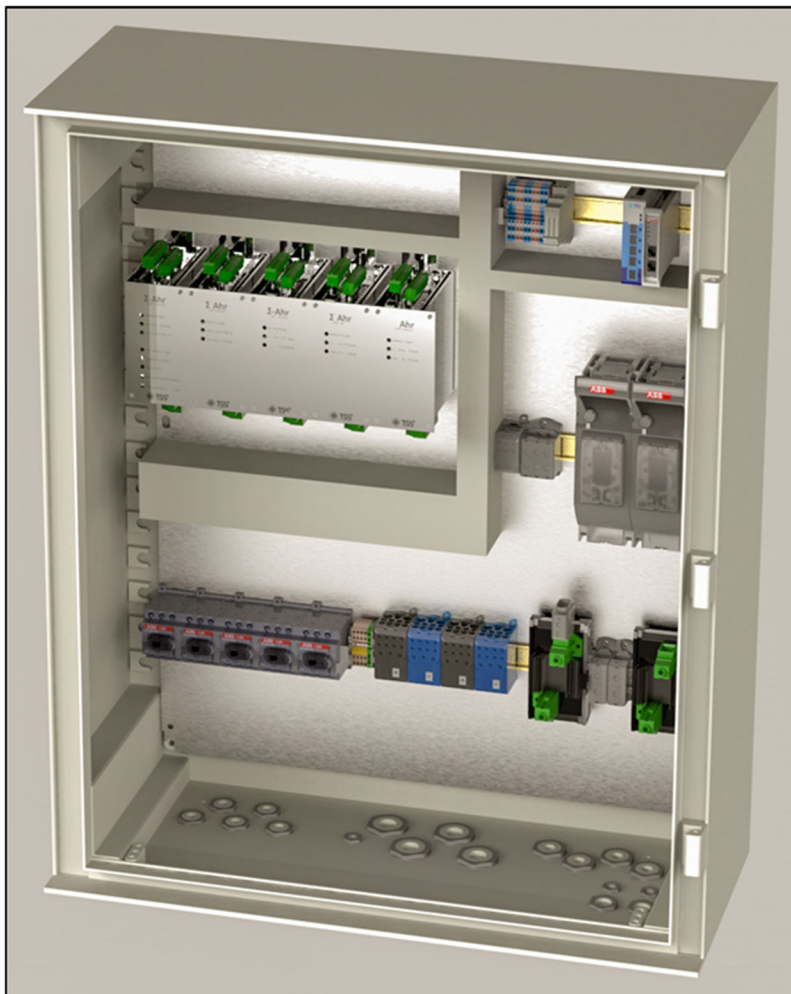


infinitem S2/S4 Control Box

With over 35 years' experience in the design and supply of off-grid Solar Power Systems for most demanding environments. TSS has used this experience to develop an extremely reliable, modular up to 41 kWp and upgradable control box for solar and solar hybrid power systems. The perfect solution for controlling your solar power system combined with multiple other power sources. Always maximum uptime, high reduction of diesel consumption. A sustainable solution reducing or even eliminating your CO₂ footprint while offering ultimate reliability to power a multitude of 24/48Vdc or 230/400Vac appliances for telecom, water treatment, farming, oil & gas, etc.



Multi battery and PV module

Suitable for Lead Acid, Li-ion or Ni-Cd batteries and various types of PV modules. With TSS' in house developed battery charging regime for any battery type.

Small and large systems

Modular design allowing future expansion. Providing the correct capacity to your requirement at any time.

Combining old and new systems

Modular sub-system approach allows combining old and new systems and batteries, no matter the age of existing systems. Without compromising on reliability.

Extreme ultimate reliability

Eliminating single point of failure by using a Σ -Ahr Controller with three independent solar inputs.

Remote Monitoring

Via Modbus TCP/IP, SNMP or any other protocol to any other interface or to our cloud-based platform, ensuring real-time and historic data for your preventive maintenance program.

infinitem S2/S4 Control Box

Electrical characteristics	infinitem S2 Control Box	infinitem S4 Control Box
Nominal system voltage	24/48 Vdc	24/48 Vdc
Quantity Σ -Ahr PWM units	1 - 2	3 - 4
Independent solar array inputs	3 - 6	9 - 12
Nominal total array input current	134 - 268 Adc	402 - 536 Adc
Min. array Umpp input voltage	33.4/66.8 Vdc	33.4/66.8 Vdc
Max. array input voltage	105 Vdc	105 Vdc
Max. array input power (with 575Wp PV module)	total 10.35 kWp (@ 24 Vdc) total 20.7 kWp (@ 48 Vdc)	Total 20.7 kWp (@ 24 Vdc) total 41.4 kWp (@ 48 Vdc)
Operating efficiency solar input	99.75 %	99.75 %
Max. external power input current	200 Adc	200 Adc
Nominal output current to load	140 Adc (*)	200 Adc
Maximum output current to load	240 Adc (1 minute) (*)	250 Adc (1 minute)
Peak output current to load	360 Adc (10 seconds) (*)	540 Adc (10 seconds)
Additional components	infinitem S2 Control Box	infinitem S4 Control Box
Σ -Ahr SmartView	✓	✓
Voltage/temperature sensor	✓	✓
Voltage free contact alarm (NO/NC)	3	3
Output fuse	160 A (size NH00)	250 A (size NH1)
External power fuse (optional)	N.A.	250 A (size NH1)
Battery fuse switch for inside battery box (optional)	355 A (size NH2)	630 A (size NH3)
System output Σ -Ahr Smart Diode	Optional	Optional
External power input Σ -Ahr Smart Diode	Optional	Optional
Cloud based platform (Ethernet, 4G/LTE, Wi-Fi)	Optional	Optional
Modbus TCP/IP to SNMP converter	Optional	Optional
RS-485 to Modbus TCP/IP converter	Optional	Optional
Cable entry	infinitem S2 Control Box	infinitem S4 Control Box
Solar module cable	6x M25 (6x (2c x 6 mm ²) or 24x (1c x 4/6 mm ²))	12x M25 (12x (2c x 6 mm ²) or 48x (1c x 4/6 mm ²))
Voltage/temperature sensor	1x M16	1x M16
Battery cable	2x M40 (up to 150 mm ²)	4x M50 (up to 185 mm ²)
Generator cable	2x M40 blind plug (35-70 mm ²)	2x M40 blind plug (35-70 mm ²)
Output cable	2x M32 (70 mm ²)	2x M32 (70 mm ²)
Blind plug	4x M16, 1x M25	4x M16, 1x M25
General specifications	infinitem S2 Control Box	infinitem S4 Control Box
Operating temperature	-20 °C to +60 °C	-20 °C to +60 °C
Storage temperature	-30 °C to +85 °C	-30 °C to +85 °C
Enclosure material	GRP	GRP
Dimensions (H x W x D)	800 x 600 x 300 mm	1000 x 800 x 300 mm
Unit weight	50 kg	85 kg
Mounting	Indoor and outdoor	
IP degree	IP66	
Approvals	CE	
Standards	IEC 61000-6-2, IEC 61000-6-4, IEC 60950-1	

(*) with two Σ -Ahr PWM Controllers, output current with one Σ -Ahr PWM controller: 90 A nom. / 120A max. / 180A peak