



# EEL STORAGE INVERTER 8YS SERIES

## THE NEW 8YS SERIES

### FOR A WIDE RENEWABLE ENERGY INTEGRATION

The EEL 8YS series is the solution for integration of storage systems. It is designed to offer grid management services.

The hallmarks of the EEL 8YS converters are:

- Fast response to power quality reference signals (lower than 100 ms)
- High regulation accuracy (lower than 1%)
- Compatible operation with most types of battery
- Battery control via standard communication protocol
- Insulation monitoring device

### OPTIONS

- Residual current monitoring device
- Insulation transformer
- Warranty extensions
- Remote monitoring solutions

### SUPPORT AND SERVICE

EEL supports its customer with a dedicated service department and provides a complete range of cycle services from commissioning to maintenance, spare parts and repairs.

### APPLICATIONS

The 8YS power converters are used to:

- Frequency regulation
- Power quality (eg voltage regulation)
- Peak shaving
- Load levelling
- Black-start
- LVRT / OVRT

### INVERTER

Inverter enclosure made of steel panels. Front opening through lockable doors to ease access to all parts. Side and rear access through bolted panels.

Inverter drive specifications:

- IGBT power circuit, film capacitors and low inductance connections
- Digital management of control parameters, alarm diagnostics, analogue and digital I/O signals from dedicated microcontroller and DSP software

### SAFETY AND RELIABILITY

Inverters are manufactured following systematic and rigorous production and testing processes. All products developed by EEL are ISO 9001 certified.

Power surge protections on both grid and battery side are installed to prevent damages on the inverter drive.

### MAIN COMPONENTS INCLUDED INSIDE ENCLOSURE

Three-phase output circuit breaker, ultra rapid fuses, contactors for grid side insertion, iron core three-phase filter reactors.

### AUXILIARY AND CONTROL CIRCUITS:

- Power supply for 24Vdc auxiliary services
- Power supply for 230Vac auxiliary services
- Circuit breakers for internal fan protections
- Circuit breakers for auxiliary circuits
- Terminal block for power cables and signal cables

### INTERFACE AND COMMUNICATION

The 8YS series converters are equipped with a data-logger unit and a touch-screen display that provides storage of past log files and alarm list. Communication protocol is TCP/MODBUS.

Additional parts provided:

- Manually operated switches
- Signal lights for voltage presence
- Emergency push-button



MODEL	8YS750	8YS1k5
<b>DC SIDE PARAMETERS</b>		
Max charge /discharge Power	770 kW	1540 kW
N. of inputs	4	8
Max. Current per input	280 A	280 A
Input Voltage range	700 ÷ 1000 VDC	700 ÷ 1000 VDC
Breaking capacity per input	50 kA	50 kA
Electric Interface	DC Disconnecter + Fuses	DC Disconnecter + Fuses

<b>AC SIDE PARAMETERS</b>		
Rated AC power	750 kVA	1500 kVA
Mains voltage	400VAC +10%/-10% 3Ph	400VAC +10%/-10% 3Ph
Rated Frequency	50/60 Hz +5%/-5%	50/60 Hz +5%/-5%
Rated Current	1083 A	2165 A
THDI	< 3%	< 3%

<b>EFFICIENCY</b>		
Maximum Efficiency	98,6 %	98,6 %

<b>GENERAL DATA</b>		
Dimensions (W / H / D)	2000 / 2200 / 600 mm	3800 / 2200 / 600 mm
Weight	1700 kg	3100 kg
Operating temperature	0°C ÷ 40 °C	0°C ÷ 40 °C
Storage temperature	-10 °C ÷ 60 °C	-10 °C ÷ 60 °C
Max Humidity (non-condensing)/Max altitude	95% / asl 1000m	95% / asl 1000m
External auxiliary supply	230V 1Ph+N / 400V 3Ph	230V 1Ph+N / 400V 3Ph
Protection Degree	IP 31	IP 31