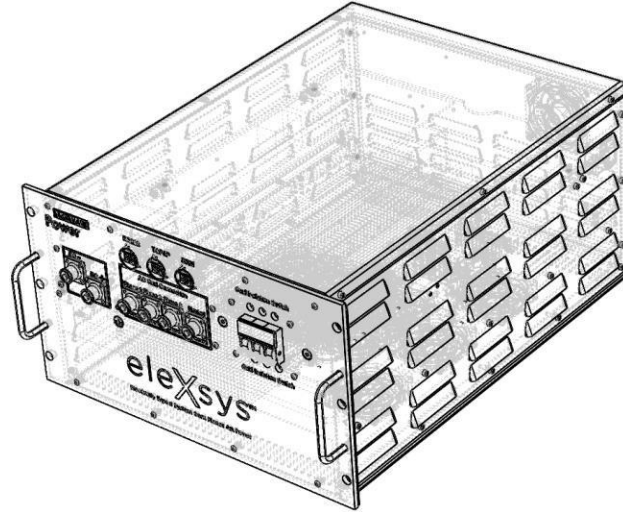


## EEdS30 Features



<b>Topology</b>	3-phase transformer-less. Four-arm bridge topology, the fourth arm is located on the neutral and facilitates phase voltage balancing. <sup>1</sup> Single-phase operation may be achieved by firmware changes and by terminal re-configuration.
<b>Power</b>	± 30 kVA
<b>Peak power</b>	± 45 kVA (Temperature limitation; approximately 30 mins with Ta at 25 °C)
<b>Overload control</b>	Current control – short circuit response defined by firmware
<b>Control</b>	Four Quadrant bi-directional source or sink real power and VARs
<b>DC Input voltage range</b>	650Vdc – 1000Vdc
<b>PWM switching</b>	Two level, 48 kHz current-controlled
<b>Output waveform</b>	Sinusoidal < 2.5% THD
<b>Switching technology</b>	Silicon Carbide MOSFET
<b>DC bus capacitor</b>	Polypropylene <sup>2</sup>
<b>Peak efficiency</b>	97.2%
<b>Firmware platform</b>	Dual Delfino™ 32 bit processors
<b>Firmware security</b>	Encrypted to AS 256
<b>Data logging</b>	Data is accessible via Ethernet or communication expander board

<sup>1</sup> Note that the fourth arm makes it possible to connect a single 3phase inverter as a single or “two-phase” inverter (“two-phase” is useful in Single Wire Earth Return systems (SWER) and in US split transformer systems).

<sup>2</sup> Product does not use Electrolytic capacitors at any level - neither Aluminum nor Tantalum  
All capacitors are either polypropylene or ceramic. The Capacitors used on the dc bus have a design life of 30 + years

## EEdS30 Technical Specification

<b>Model: EEdS30</b>		
<b>DC PORT - ENERGY STORAGE</b>		
DC voltage range	650 ~ 1000V	
Input Start-up Voltage (min)	650V	
DC MAX current	60A	
DC MAX power	30kW	
<b>AC OUTPUT RATINGS - GRID TIE PARAMETERS</b>		
AC rated voltage	400V	*Software configurable
AC voltage range	184 ~ 264.5V	*Software configurable
AC rated current	44A	*Software configurable
Rated frequency	50Hz	*Software configurable
Frequency range	45 ~ 55Hz	*Software configurable
AC rated apparent power	30kVA	*Software configurable
Power factor range	0 leading ~ 0 lagging	*Software configurable
Output THD	<2.5%	
<b>SYSTEM PARAMETERS</b>		
Wiring mode	3P4W+PE	
AC breaker rating	63A	
Isolation mode	Non-isolating	
Protective class	Class I	
Over voltage category	AC: III, DC: II	
Active anti-islanding method	Regular disturbance method	
Active trip	10us min, 20us nom, 40us max	Fast protection in extreme conditions
Passive trip	1 ~ 2s	According to AS4777
Cooling	Internal fan-forced cooling	
Noise	<60dB	
Working temperature range	0 ~ 40°C	Full Power
Temperature derating (Ta)	N/A	
IP degree	IP31	
MAX elevation	2000m (derating from 2000m)	
Weight	35Kg	
Size (W*D*H)	485*602*277mm	
Battery type	Lithium-ion only	
Communication protocols	Modbus TCP/IP, TCP/IP, DN3P	
Communication socket	RJ45, RS232	

EEdS30 Technical Specification (Cont.)

	STANDARDS/DIRECTIVES
Safety class	I
Configurable trip parameters	Yes
Overload behaviour	Current limitation; power limitation; Ta dependant
Anti-islanding protection	IEC62116:2014
Gird Regulation	AS4777.2:2015
EMC	AS61000.6.3; AS61000.6.4
Safety	AS62040.1:2019; AS60950.1:2015
Manufactured in:	Australia

EEdS30 Architecture

