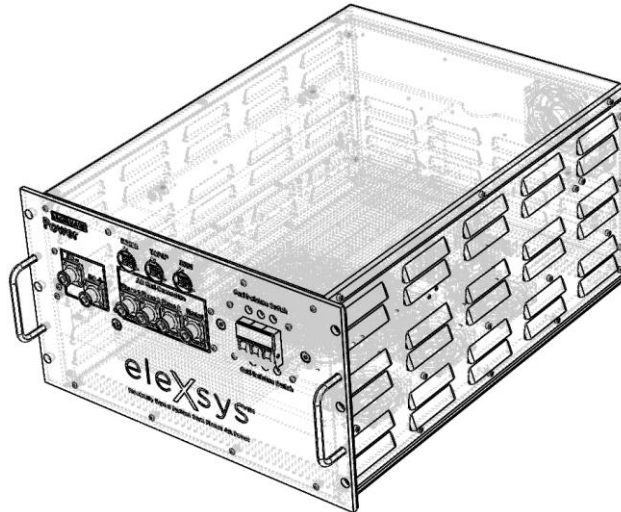


EEdS 3042 Features



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

¹ 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).

² 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

EEdS 3042 Technical Specification

Model: EEdS 3042		
DC PORT - ENERGY STORAGE		
DC voltage range	650 ~ 1000V	
DC MAX current	60A	
DC MAX power	30kW	
AC OUTPUT RATINGS - GRID TIE PARAMETERS		
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%	
SYSTEM PARAMETERS		
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	

EEdS 3042 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

EEdS 3042 Architecture

