

DELPHYS GP

High-efficiency protection without compromise

from 160 to 800 kVA/kW



Energy saving + Full rated power = reduced TCO

Function

The **Delphys Green Power** range is a monolithic UPS solution designed to meet performance and service continuity requirements.

Scalable up to 4MW, the **Delphys GP** covers a wide range of power which has proven itself to the most demanding customers in different types of high criticality applications.

Advantages

Energy saving: high efficiency without compromise

- Offers the highest efficiency in the market using VFI – Double Conversion Mode, the only UPS working-mode that assures total load protection against all mains quality problems.
- Ultra high efficiency output independently tested and verified by an international certification organization in a wide range of load and voltage operating condition.
- Ultra high efficiency in VFI mode is provided by an innovative topology (3-Level technology) that has been developed for all the Green Power 2.0 UPS ranges.

Full rated power: kW=kVA

- No power downgrading when supplying the latest generation of servers (leading or unity power factor).
- Real full power, according to IEC 62040: kW=kVA (unity power factor design) means 25% more active power available compared to legacy UPS.
- Suitable also for leading power factor loads down to 0.9 without apparent power derating.

Significant cost-saving (TCO)

- Maximum energy saving thanks to 96% efficiency in true double conversion mode: 50% saving on energy losses compared to legacy UPS gives significant savings in energy bill.
- Up to 99% efficiency with FAST ECOMODE.
- UPS «self-paying» with energy saving.
- Energy Saver mode for global efficiency improvement on parallel systems.
- kW=kVA means maximum power available with the same UPS rating: no overdesign cost and therefore less €/kW.
- Upstream infrastructure cost optimization (sources and distribution), thanks to high performance IGBT rectifier.
- Extended battery life and performance: long life battery and very wide input voltage and frequency acceptance, without battery use.
- EBS (Expert Battery System) charging management improves battery service life.
- BCR (Battery Capacity Re-injection) removes the constraints of using an additional load bank for the battery discharge test: it consists in re-injecting the energy stored in the batteries to other applications.

The solution for

- > Healthcare
- > Industry

Strong points

- > Energy saving: high efficiency without compromise
- > Full rated power: kW=kVA
- > Significant cost-saving (TCO)

Conformity to standards

- > IEC/EN 62040-1
- > AS 62040.1.1
- > AS 62040.1.2
- > IEC/EN 62040-2
- > AS 62040,2
- > IEC/EN 62040-3
- > AS 62040,3
- > CE, RCM (E2376)

Certifications and attestations



DELPHYS GP is attested by Bureau Veritas



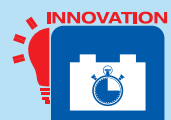
DELPHYS GP 160, 200 and 500 kVA/kW are seismic certified by Virlab



Advantages



Ready for Li-Ion battery



Battery Capacity Re-injection

Parallel systems

To fulfil the most demanding needs for power supply availability, flexibility and the installation to be upgraded.

- Modular parallel configurations up to 4 MW, development without constraint.
- Distributed or centralized bypass flexibility to ensure a perfect compatibility with the electrical infrastructure.
- Twin channel architecture with Static Transfer Systems.
- Distributed or shared battery for energy storage optimization on parallel systems.

General characteristics

- Integrated maintenance bypass for single unit (and 1+1 system).
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Redundant cooling.
- Battery temperature sensor.

Electrical options

- Separated or common input mains.
- External maintenance bypass.
- Extended battery charger capability.
- Shared battery.
- Compatible with different battery technologies (e.g. Li-Ion, Ni-Cd...).
- Galvanic isolation transformer.
- Backfeed isolation device.
- ACS synchronisation system.
- BCR (Battery Capacity Re-injection).
- FAST ECOMODE.

Parallel systems

| DELPHYS GP | | | | | | | | |
|---|---|----------|----------|---------|---------|----------|---------|----------|
| Sn [kVA] | 160 | 200 | 250 | 300 | 400 | 500 | 600 | 800 |
| Pn [kW] | 160 | 200 | 250 | 300 | 400 | 500 | 600 | 800 |
| Input/output | 3/3 | | | | | | | |
| Parallel configuration | up to 4 MW | | | | | | | |
| INPUT | | | | | | | | |
| Rated voltage | 400 V 3ph | | | | | | | |
| Voltage tolerance | 200 V to 480 V ⁽¹⁾ | | | | | | | |
| Rated frequency | 50/60 Hz | | | | | | | |
| Frequency tolerance | ± 10 Hz | | | | | | | |
| Power factor / THDI | > 0.99 / < 2.5% ⁽³⁾ | | | | | | | |
| OUTPUT | | | | | | | | |
| Power factor | 1 (according to IEC/EN 62040-3) | | | | | | | |
| Rated voltage | 3ph + N 400 V | | | | | | | |
| Voltage tolerance static load | ±1% dynamic load in accordance with VFI-SS-111 | | | | | | | |
| Rated frequency | 50/60 Hz | | | | | | | |
| Frequency tolerance | ± 2% (configurable for GenSet compatibility) | | | | | | | |
| Total output voltage distortion linear load | ThdU < 1.5% | | | | | | | |
| Total output voltage distortion non-linear load (IEC 62040-3) | ThdU < 3% | | | | | | | |
| Short-circuit current ⁽²⁾ | up to 3.4 x I _n | | | | | | | |
| BYPASS | | | | | | | | |
| Rated voltage | rated output voltage | | | | | | | |
| Voltage tolerance | ± 15% (configurable from 10% to 20%) | | | | | | | |
| Rated frequency | 50/60 Hz | | | | | | | |
| Frequency tolerance | ± 2% (configurable for GenSet compatibility) | | | | | | | |
| EFFICIENCY | | | | | | | | |
| Online mode @ 40% of load | up to 96% | | | | | | | |
| Online mode @ 75% of load | up to 96% | | | | | | | |
| Online mode @ 100% of load | up to 96% | | | | | | | |
| Fast EcoMode | up to 99% | | | | | | | |
| ENVIRONMENT | | | | | | | | |
| Operating ambient temperature | from 0 °C up to +40 ⁽¹⁾ °C (from 15 °C to 25 °C for maximum battery life) | | | | | | | |
| Relative humidity | 0% - 95% without condensation | | | | | | | |
| Maximum altitude | 1000 m without derating (max. 3000 m) | | | | | | | |
| Acoustic level at 1 m (ISO 3746) | < 65 dBA | < 67 dBA | < 70 dBA | | | < 72 dBA | | < 74 dBA |
| UPS CABINET | | | | | | | | |
| Dimensions | W | 700 mm | 1000 mm | 1400 mm | 1600 mm | 2800 mm | 3510 mm | |
| | D | 800 mm | 950 mm | 800 mm | 950 mm | 950 mm | | |
| | H | 1930 mm | | | | | 2060 mm | |
| Weight | 470 kg | 490 kg | 850 kg | 900 kg | 1000 kg | 1500 kg | 2300 kg | 2800 kg |
| Degree of protection | IP20 (other IP as option) | | | | | | | |
| Colours | cabinet: RAL 7012, door: silver grey | | | | | | | |
| STANDARDS | | | | | | | | |
| Safety | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2 | | | | | | | |
| EMC | IEC/EN 62040-2, AS 62040.2 | | | | | | | |
| Performance | IEC/EN 62040-3, AS 62040.3 | | | | | | | |
| Seismic compliance ⁽⁴⁾ | Uniform Building Code UBC-1997, EN 60068-3-3/1993 (seismic), EN 60068-2-6/2008 (sinusoidal), EN 60068-2-47/2005 (mounting). | | | | | | | |
| Product declaration | CE, RCM (E2376), UKCA | | | | | | | |

(1) Conditions apply. (2) Worst condition (Auxiliary Mains not available). (3) With input THDV < 1%. (4) 160, 200 and 500 kVA/kW models.

Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- 2 slots for communication options.
- USB port to download UPS report and log file.
- Ethernet port for service purpose.

Communication options

- Dry-contact interface (configurable voltagefree contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.
- Additional Com-slot extension.

Expert services

Our services guarantee the highest level of availability to your UPS:

- > Technical advice
- > Commissioning
- > Manufacturer training
- > Maintenance contracts including digital services