

2400 POWER COIL

480 V / 600V

90 kVA solid-state GPU and cable coil
- in one enclosure



The ITW GSE 2400 Power Coil includes a 400 Hz, 90 kVA power supply and a cable coil in one single enclosure. This leaves the PBB and the apron nice, neat and pleasant to look at. Especially, where glass bridges is the preferred solution, the aesthetic aspect is important. The Power Coil works perfectly well with all sizes of bridges and all types of aircraft.

INNOVATIVE SOLUTION, BASED ON EXPERIENCE

The 2400 Power Coil offers a highly reliable and robust design including a front plate in stainless steel. The Power Coil has an improved cable guidance system that ensures easy and smooth cable handling. As a standard, the Power Coil comes with standard ITW GSE cable (24 m or 28 m seable length). The cable is rolled completely into the housing after use. The rolling automatically stops when the plug head reaches the lower edge of the Power Coil thus leaving the apron free.

SUPPLY ALL AIRCRAFT INCL. PF1

The 2400 Power Coil is based on the ITW GSE design and provides all performance features from the well-known 2400 Compact GPU i.e. the unique voltage quality and the 400% overload at output as a standard. Further, it is equipped with the smart ITW GSE user interface. And software can be updated via USB. The Power Coil also includes standard overload capabilities that match all types of aircraft even those requiring Power Factor 1 like the B787/A350/A380.



ECOGATE – ADVANCING GATE ECONOMICS

By linking your ITW GSE ground support equipment together in an integrated system, EcoGate unlocks new efficiencies and removes power-related barriers to affordable progress at the gate. As the heart of EcoGate, the ITW GSE 3500 PCA uses Intelligent Power Management to monitor power consumption and needs, and then distribute power dynamically to units that need it most. This means the ITW GSE 2400 Power Coil is automatically allocated the power it needs from the 3500 – the PCA simply adjusts its own consumption to make sure total gate power capacity is never exceeded.

SPECIFICATIONS

ITW GSE 2400 Power Coil

Specifications for GPU Output

- Power: 90 kVA PF 0,8-1
- Voltage: 3 x 115/200 V
- Frequency: 400 Hz $\pm 0,1\%$
- Power factor: 0,7 lagging to 0,95 leading
- Voltage regulation: $<0,5\%$ for balanced and up to 30% unbalanced loads
- Voltage recovery: $\Delta <8\%$ and rec. time <10 ms at 100% load change
- Total harmonic content: $<2\%$ at linear load (typ. 1,5%) $<2\%$ at non linear load according to ISO 1540
- Crest factor: 1,414 $\pm 3\%$
- Voltage modulation: $<1,0\%$
- Phase angle symmetry: $120^\circ \pm 1^\circ$ for balanced load $120^\circ \pm 2^\circ$ for 30% unbalanced load

Protection

- Protection class: IP55
- No break power transfer
- Over/under voltage at output
- Overload
- Internal high temperature
- Control voltage error
- Short circuit at output
- GPU Enable
- 90% switch interlock
- Neutral voltage supervision
- Broken neutral supervision
- Leakage current supervision

Environmental

- Operating temperature: -40°C to $+56^\circ\text{C}$ (-40°F to 132°F) ($+60^\circ\text{C}$ (140°F) at Aircraft Load)
- Relative humidity: 10-100%
- Noise level: <65 dB(A)@1m

Efficiency

- Overall efficiency: 0,94 at 35-90 kVA load PF 0,8 0,90 at 25 kVA load PF 0,8
- Stand by losses: 65 W
- No load losses: 2,2 kW

Miscellaneous

- MTTR: max. 20 minutes
- Colour: RAL 7035 (standard)
- Weight: Up to 765 kg (1,687 lbs) 600 V: 860 kg (1,896 lbs)

Norms and Standards (valid for 30 to 180 kVA units)

- ISO 6858:2017(E) Aircraft ground support electric supplies
- DFS400* Specification for 400 Hz aircraft power
- BS 2G 219* General requirements for ground support equipment
- MIL-STD-704F* Aircraft electric power characteristics
- SAE ARP 5015* Ground equipment 400 Hz ground power performance requirement
- EN2282* Aerospace series characteristics of aircraft electrical supplies
- EN62040-1-1 General & safety requirement
- EN61558-2-6 General & safety requirement
- EN61000-6-4 Electromagnetic compatibility Generic emission standard
- EN61000-6-2 Generic immunity standard
- EN1915-1&2 Machinery; general safety requirements
- EN12312-20 Machinery; specific safety requirements
- UL 355 Cord Reels
- ETL Listed to above UL standard (Only 480 V version)

* Standard partly fulfilled. Contact ITW GSE for more information

Cable/Connector**

- Special twisted highly flexible cable harness for power transfer from fixed part to moving part
- 24 m (79 ft) or 28 m (92 ft) flexible composite cable
- Aircraft connector with:
 - Start/stop push buttons
 - Cable IN/OUT push buttons
 - Replaceable pins & front
 - Indication LEDs
 - Split F-pin
 - PTC 100 thermal protection (optional)

Electro Mechanical System

- Cable drum with spiral cable trace
- 1,1 kW gear motor
- VFD for gear motor
- Coiling speed 40 m/min

Protection

- Cable blocked
- Motor overload

Common specification for GPU & Coil Input

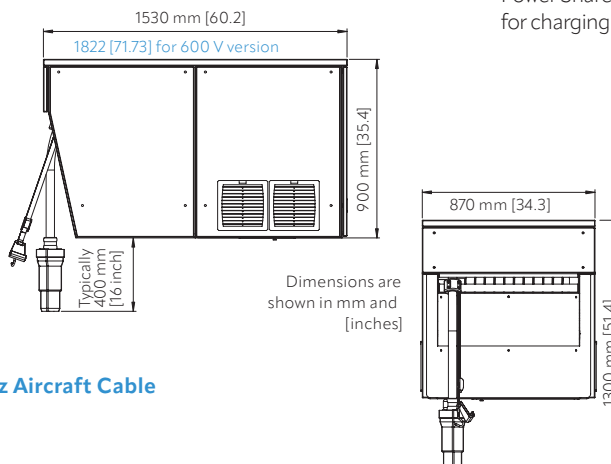
- Voltage range: 3 x 480 V
- Rated current: PF (load) 0,8 / PF 1 93 A $\pm 15\%$ / 118 A $\pm 15\%$
- Voltage range: 3 x 600 V
- Rated current: PF (load) 0,8 / PF 1 73 A $\pm 15\%$ / 94 A $\pm 15\%$
- Frequency: 50/60 Hz ± 5 Hz
- Rectification: Magnetic wave-shaping incl. 12-pulse rectification
- Line current distortion: $<5\%$
- Power factor: 90 kVA: 1 @ nominal load
- Inrush current: None

Overload Ratings

- 125% for 600 seconds
- 150% for 60 seconds
- 200% for 30 seconds
- 300% for 10 seconds
- 400% for 1 second

Available standard options

- RS485
- Apron mounting stand
- Power Share: 50/60 Hz receptacle for charging eGPUs or other AC units



** Find more information about the 400 Hz Aircraft Cable Assembly at itwgse.com/cables