

HOBART 2400 POWER COIL

90 kVA Solid-state GPU and Cable Coil - in one enclosure



PLUG & PLAY
UNIQUE VOLTAGE QUALITY

*HOBART is part of ITW GSE
- the world's leading supplier of Ground Support Equipment*

**ITW
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It's all about connections



THE AESTHETIC POWER SOLUTION

The Hobart 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 and neat and pleasant to look at. Especially, where glass bridges are the preferred solution, the aesthetic aspect is important. The Power Coil works well with all sizes of bridges and all types of aircraft.

INNOVATIVE SOLUTION, BASED ON EXPERIENCE

The Hobart 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 24 m (72 ft) of cable (useable length). However, the spacious housing has room for a 28 m (92 ft) cable. The cable is rolled completely into the housing after use. The rolling cable automatically stops when the plug head is level with the lower edge of the Power Coil thus leaving the apron clear.

UNIQUE VOLTAGE QUALITY AT THE PLUG

With ITW GSE's unique, patented Plug & Play compensation system, you obtain a unique voltage quality at the aircraft plug! The Plug & Play system is based on a true individual phase regulation combined with a predetermined model of the actual cable installation. Therefore, the voltage quality at the aircraft connector is simply the best you can get!

SUPPLY ALL AIRCRAFT INCL. PF1

The Hobart 2400 Power Coil is based on the ITW GSE design and provides all performance features of the well-known Hobart PoWerMaster® 2400 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 using a USB stick. 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.

INNOVATIVE DESIGN

The Hobart 2400 Power Coil consists of a 90 kVA solid-state converter and a cable drum in one enclosure. The completely encased unit is less susceptible to effects from exposure to the elements, such as sunlight and harsh weather. This minimizes the overall maintenance costs. And what's more, the Hobart Power Coil saves space and weighs up to 40% less compared to a traditional solution with a separate GPU and a separate coil. The frequency controlled direct driven coil with its robust cable guidance system, provides smooth coiling and less mechanical stress. All in all, the Power Coil is a very reliable power supply system, built to last. For power requirements above 90 kVA, two or more Hobart Power Coils are installed side by side.

QUICK INSTALLATION

Traditionally, a 400 Hz ground power solution for passenger boarding bridges is made up of entirely separate systems or parts. These typically include a GPU, a cable handling system, interconnection cable and aircraft cable; components that are usually sourced from different suppliers and require separate on-site installation and testing.

The Hobart Power Coil combines all these parts in one state-of-the-art unit that comes fully tested and adjusted from the factory - ready to be placed under the PBB. Mount the unit under the bridge, connect the input cable and the power coil is ready for use. This is easy and helps you save time and money!



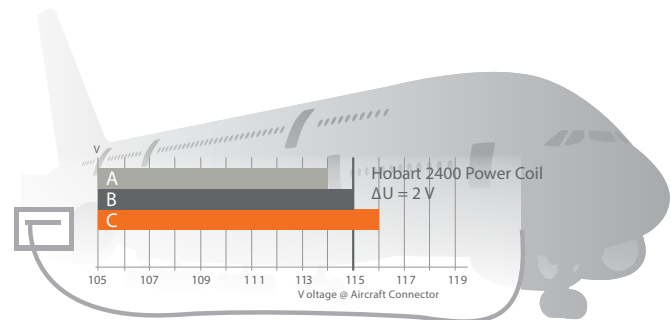
SUPPLY ALL AIRCRAFT INCL. PF1

The Hobart 2400 Power Coil is a true Power Factor 1 ground power unit. Its standard overload capabilities match all types of aircraft from the narrow-body to the wide-body incl. aircraft requiring Power Factor 1 like the B787/A350/A380.

UNIQUE VOLTAGE QUALITY

The output voltage quality of the Hobart 2400 Power Coil is unique due to ITW GSE's patented Plug & Play system.

The Hobart 2400 Power Coil is even designed to fulfil the coming ISO 6858 standard that requires max. phase imbalance of less than 4 V and a phase angle of $120^\circ \pm 2.5\%$.



THE ITW GSE OPERATOR INTERFACE

The ITW GSE operator interface is easy and intuitive. This is your guarantee for correct operation and on-time aircraft departures. The operator only has to press the combined start/stop button. Also, he can monitor various parameters such as voltage and current at the display screen.

For easy set-up and maintenance purposes, there is a deeper level dedicated for the technician. The operator interface is common from one ITW GSE product to another. Therefore, airport staff familiar with one ITW GSE product can easily switch to another as the icons and display are the same.



DOWNLOADS AND UPDATES

The software-based control system means that your Hobart 2400 Power Coil can be updated and given additional capabilities in the future, simply by transferring new software from a USB stick.



Specifications

Hobart 2400 Power Coil

Specifications for GPU Output

- Power: 90 kW/kVA PF 0.8-1
- Voltage: 3 x 115/200 V
- Frequency: 400 Hz \pm 0.001 Hz
- Power factor:
0.7 lagging to 0.95 leading
- Voltage regulation:
<0.5% for balanced and up to
30% unbalanced loads
- Voltage recovery: Δ <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° \pm 1° for balanced load
120° \pm 2° for 30% unbalanced load

Protection

- Protection class: IP55 (NEMA-4)
- No break power transfer
- Over/under voltage at output
- Overload
- Internal high temperature
- Control voltage error
- Short circuit at output
- GPU Enable
- Neutral voltage supervision
- Broken neutral supervision
- Leakage current supervision

Environmental

- Operating temperature:
-40°C to +56°C (-40°F to 132°F)
(+60°C (140°F) at typical loads)
- 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: 700 kg (1543 lbs.)
incl. 24 m (79 ft) cable w. strain relief

Specifications for Coil

Cable/Connector

- Special twisted highly flexible cable
harness for power transfer from fixed
part to moving part
- 24 m (79 ft) flexible composite cable
- Aircraft connector with:
 - Start/stop push buttons
 - Cable IN/OUT push buttons
 - Replaceable pins & nose

Electro Mechanical System

- Cable drum with spiral cable trace
- 1,1 kW gear motor
- VFD for gear motor
- Coiling speed 40 m/min (131 fpm)

Protection

- Cable blocked
- Motor overload

Common specification for GPU & Coil Input

- Voltage range: 3 x 480 V \pm 10%
- Frequency: 50/60 Hz \pm 5 Hz
- Rectification: Magnetic wave-shaping
incl. 12-pulse rectification
- Rated current: PF (load) 0.8 / PF 1
97 A \pm 15% / 123 A \pm 15%
- Line current distortion: <5%
- Power factor:
90 kVA: 1 @ nominal load
- Inrush current: None

Overload Ratings

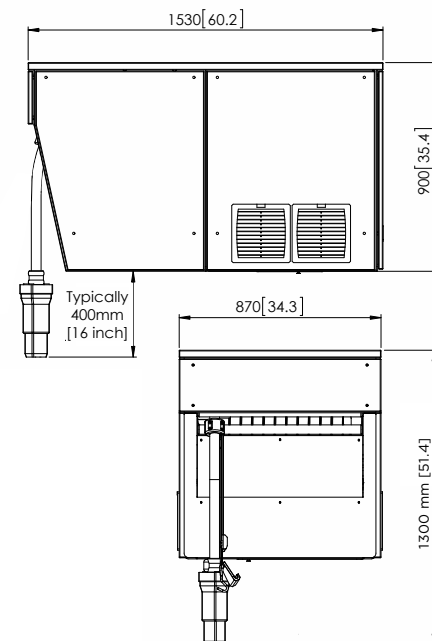
- 125% for 600 seconds
- 150% for 60 seconds
- 200% for 30 seconds
- 300% for 10 seconds
- 400% for 1 second

Available standard options

- RS485
- 28 m (92 ft) flexible composite cable
- Split F-pin / split F-contact
- Remote control Box

Norms and Standards

- DFS400 Specification for 400 Hz aircraft power
- ISO 6858 Aircraft ground support electric supplies
- 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; general safety requirements
- UL1012 Power Units Other Than Class 2
- UL 355 Cord Reels
- ETL listed to above UL standards



Specifications subject to change without prior notice

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