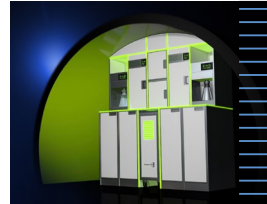
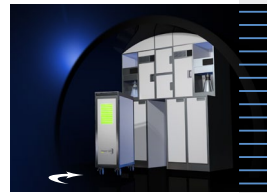


DACAPO® and MAGIC®

Green Cabin Power – starting today

DIEHL
Aviation

Climbing higher.
Together.



Characteristics

DACAPO® is an innovative concept designed to supply passenger cabins with electrical energy, and to significantly disburden the airplane power supply. Electrical power is generated by a power cell inside MAGIC® Galleys, and consequently the cabin can be supplied by one or more galleys. Interconnected MAGIC® Galleys create a reliable power grid with a reserve of excess power. Other aircraft systems, including emergency power systems, can also be supplied. Installation requires only minor changes on board the aircraft and is independent of any infrastructure. Thus the DACAPO® concept enables green energy to be introduced to aircraft.

Benefits

- use of "green energy" in cabin
- increased cabin flexibility
- independent electrical energy for new cabin functions
- retrofit solutions for existing galleys

Features

- fuel (H₂) will be stored in a "harmless manner" on board
- no on-board hydrogen infrastructure necessary
- fueling/maintenance independent of turn-around times
- fueling service can use already existing supply chain
- technology evolutions inside the power cell are easily possible
- introduction of green energy by retrofit or step-by-step
- multifunctional usage of all fuel cell products (electricity, heat, water)

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**CRYSTAL
CABIN**
AWARD®
WINNER 2014

New airplanes following the MEA (More Electric Aircraft) philosophy with increasing new functions on board will need significantly more electrical power. DACAPO® (Distributed Autonomous CABin POver) follows the idea of separating all systems into cabin systems and aircraft systems with independent power networks. All cabin systems are supplied through MAGIC® (Modular Autonomous Galley with Integrated Power Cell) Galleys. Galleys are the largest consumers of energy on board.

The electrical power is generated by a Power Cell inside the MAGIC® Galley. Each Power Cell is designed according to the standard full-size Atlas trolley dimensions and needs only one stowage place. The introduction of MAGIC® requires only minor changes on board an aircraft and is independent of any aircraft infrastructure. For refueling and maintenance the energy trolley will be exchanged using the existing supply chain such as the catering services.

The DACAPO® concept, based on MAGIC® Galleys and Power Cells, brings green energy to the aircraft. In a DACAPO® cabin these MAGIC® Galleys create a reliable power grid with a reserve of excess power, able to supply cabin loads and potentially other aircraft systems including emergency power systems. One of the biggest advantages of the DACAPO® concept is its potential for the step-by-step introduction of green energy, starting today, with retrofitable MAGIC Galleys.

Technical Data

Each MAGIC® Galley with a single Power Cell (sample configuration) will supply 80 PAX during a long-distance flight taking into account up to 3 catering cycles. Corresponding to this requirement the Power Cell contains about 30 kWh of electrical energy.

Want to know more about our products and their availability? Please contact us!

Diehl Aerospace GmbH | Sales | Alte Nußdorfer Straße 23 | 88662 Überlingen | Germany | Tel: +49 7551 891-0

www.diehl.com/aviation