



# LINECARD EVTOL AIRCRAFT





# EVTOL AIRCRAFT

## EVERYWHERE YOU ARE

### POWER CONDITIONING SYSTEMS

- » Battery Charge & Discharge Management, for high storage energy density
- » Battery Monitoring
- » High Power Density & highly efficient
- » Starter-Generator

### AIRCRAFT PROTECTION SYSTEMS

- » Ice Protection & Deicing Systems (IPCU)
- » Lightning Protection Systems

### ENVIRONMENTAL CONTROL & IN-FLIGHT SYSTEMS

- » Heating, ventilation, and air conditioning (HVAC)
- » In-Flight Entertainment Systems (IFE)
- » Cabin Management Systems

### AIRCRAFT FLIGHT CONTROL SYSTEM

- » Flight Control Computer (autonomy & simplification)
- » Sensor & Control Systems
- » Electrical Braking Actuation (EBAC)
- » Electrical Backup Mechanical Actuator (EBMA)

### POWER DISTRIBUTION & CONVERSION SYSTEMS

- » Primary Hi-Voltage DC Bus Regulation to System Bus
- » Secondary Lo-Voltage DC Bus Regulation to Payloads
- » SSPC, Contactors, SSR

### ELECTRIC PROPULSION SYSTEMS

- » Electrical motors w/wo integrated motor controller units (FADECs)
- » Distributed electric propulsion

## Heritage Examples



### Drive/Actuation MCE – Engine Control Units

Motor-control electronics for drive units, such as electro actuators systems for flight control and propulsion drive systems.



### Battery Management

Charging, discharging and monitoring power control units to manage the battery systems.



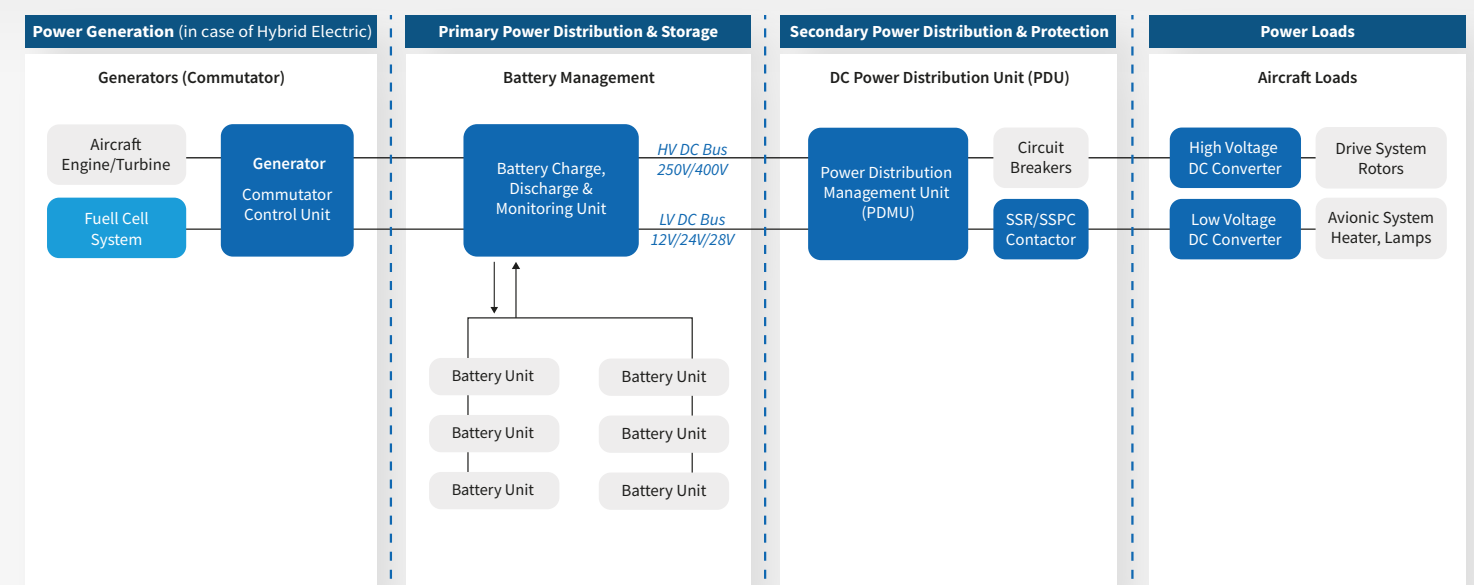
### PCDU (SSR/SSPC)

Power Conditioning & Distribution Units to manage solid state with SSR/SSPC the power distribution to the different loads of eVTOL/VTOL urban flight vehicles.



### CDS

Cockpit Display System present flight and navigation parameters, as well as the communication between the crew and the various software applications.

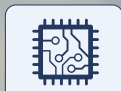




# OUR PRODUCTS SUPPORT YOUR DESIGNS

## DATA MANAGEMENT

Data Acquisition, Processing & Handling



On Board  
Computer



Mass Memory  
(SSMM)



Sensors

## MOTION MANAGEMENT

Generation, Motion & Actuation



Power  
Generation



Motion  
Control(er)



Engine  
Control

## ACTIVE COMPONENTS

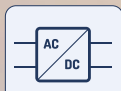
## INTERCONNECT

## PASSIVE COMPONENTS

## INTEGRATED SOLUTIONS

## POWER MANAGEMENT

Data Acquisition, Processing & Handling



Power  
Conversion



Power  
Generation



Power  
Distribution

## ENERGY MANAGEMENT

Battery Management, Energy Distribution



Energy  
Charging



Energy  
Discharging



Energy  
Distribution

## OUR SUPPLIERS



www.3d-plus.com



www.delevan.com



Powering Business Worldwide

martekpower.com



www.exxelia.com



www.omnetics.com



www.pavetechnologyco.com



Positronic<sup>®</sup>  
an Amphenol company

www.connectpositronic.com



www.rencousa.com



www.rfimmunity.com



www.sensitron.com



www.smc-diodes.com



www.weiking.com



ACTIVE COMPONENTS

PASSIVE COMPONENTS

INTERCONNECT

INTEGRATED SOLUTIONS



## MSA Components GmbH

Am Glockenberg 13  
57439 Attendorn  
Germany

Tel. +49 2722 6373 0  
Fax +49 2722 6373 29

service@msa-components.com  
www.msa-components.com