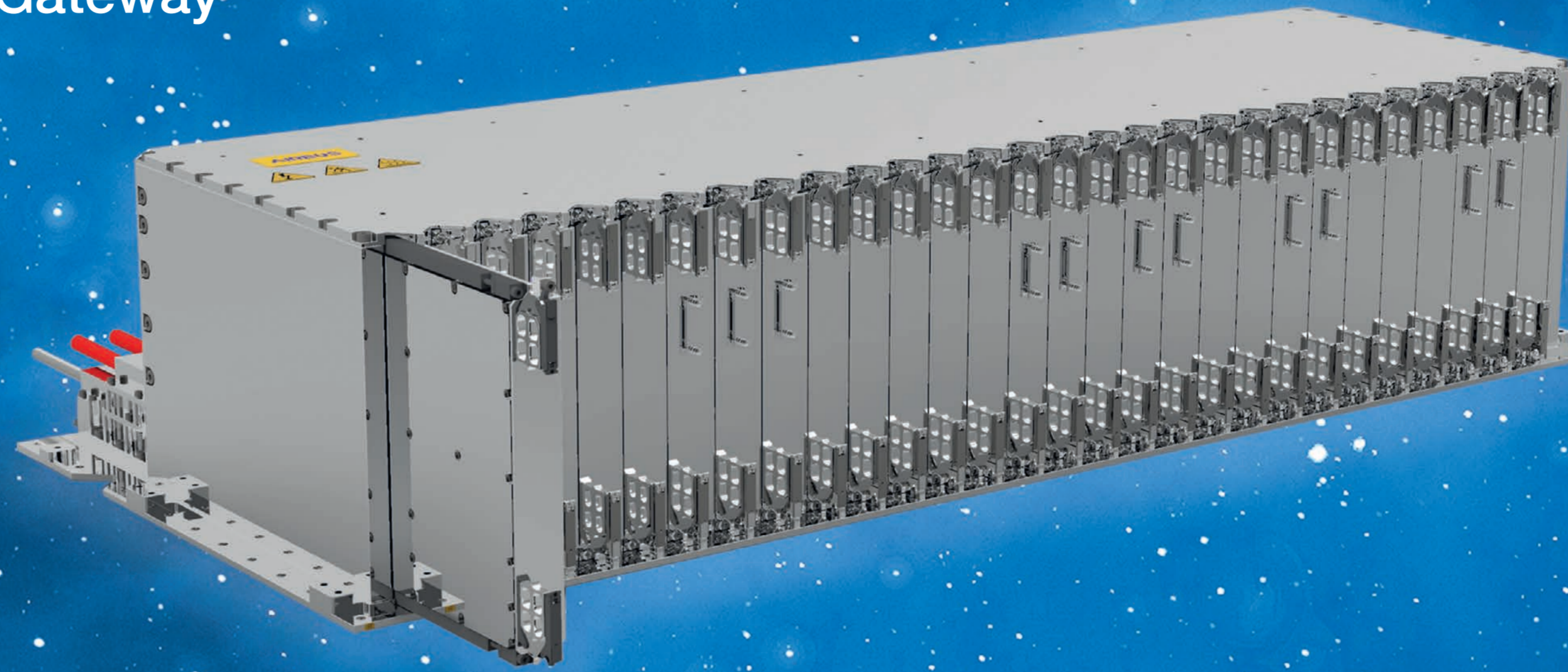


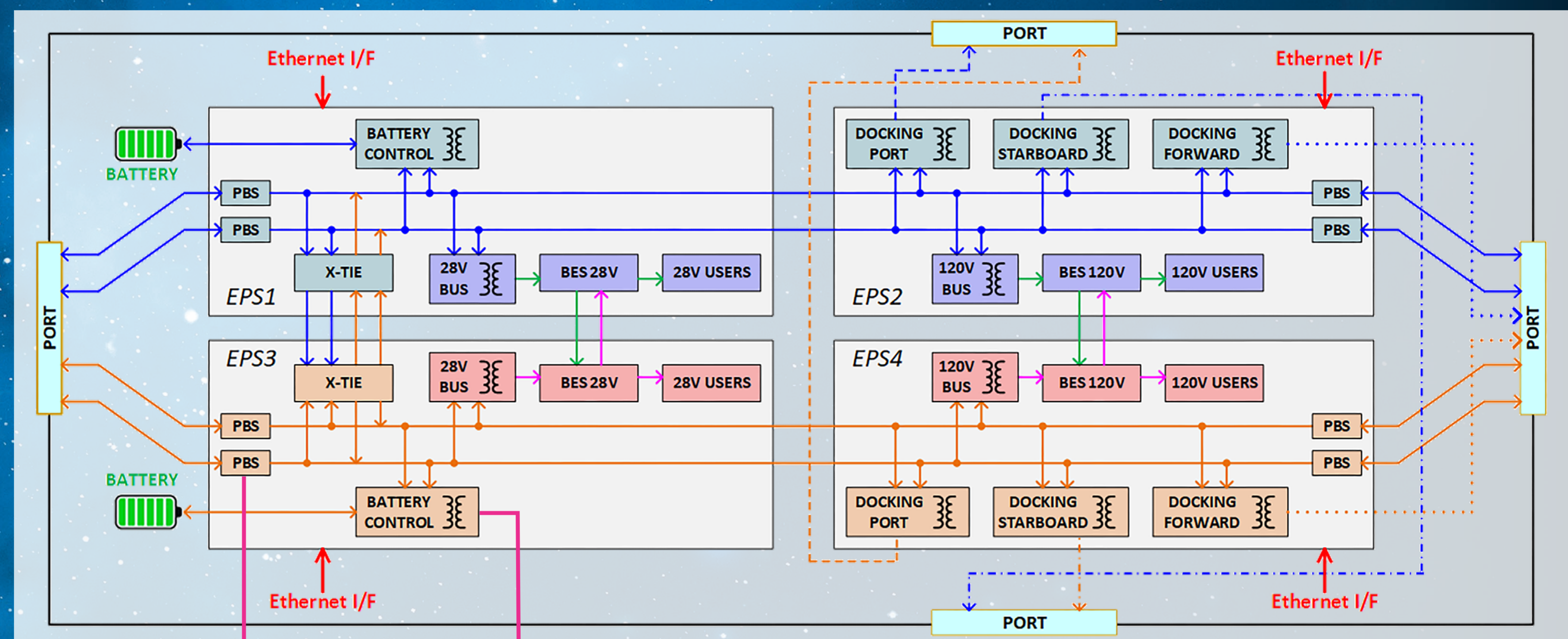
Airbus Crisa

Generic High Power System (GHPS): The Standard for Human Exploration

- GHPS (Generic High Power System) is the standard for crewed missions developed by Airbus Crisa in collaboration with Northrop Grumman for the NASA Lunar Gateway
- Scalable power solutions for 120V platforms compliant with NASA standards for crewed missions
- Efficient, isolated, bidirectional power conversion
- Programmable digitally controlled Power Converters
- Protected power distribution at 120V and 28V
- In-flight replaceable cards
- Modular approach based on standard building blocks



Card name	Description	Function group
BCDR	Isolated B attery C harge and D ischarge R egulator	CONVERSION
BRM	B us R egulator M odule: bus quality and control parameters management	
ISODCDC	Multipurpose bidirectional fully digitally controlled I Solation D C/ D C	
PDC	Digitally controlled P ower D own C onversion from 120V to 28V	
SUPS	S tandard U ser P ower S ervices: independent power supplies for crew usage: 4 x programmable Low Voltage outputs (3-28V) and 4 x High Voltage outputs (120V)	
APR	A rray P ower R egulator: Direct Energy Transfer under development, Maximum Power Point Tracker in roadmap.	
CTRL-APS	C on T ROL and A uxiliary P ower S upply: TM/TC based on Ethernet, and centralized auxiliary power supply	CONTROL
PBS 120V	P rietary B us S witch: solid state based 20A to 165A programmable bidirectional latching current limiter	DISTRIBUTION
X-TIE	Cross-strapping link between primary power buses	
PDS 28V & 120V	P ower D istribution S witch: solid state based latching current limiter for spacecraft users.	
BES 28V & 120V	B us E nable S witch: cross-strapping link between secondary power buses	
HCM	H eater C ontrol M odule: heater drivers upstream protected in groups by latching current limiter	



1

- PBS 120V: Primary Bus Switch 120V**
- ✓ Provides Latching Current Limiter (LCL) functionality with current limitation configurable between 20 and 165A.
 - ✓ Based on N-channel MOSFETs.
 - ✓ Switching, protection and failure isolation for primary bus
 - ✓ Start-up logic and inhibit hardlines.

2

- ISODCDC: Multipurpose bidirectional fully digitally controlled ISolation DC/DC**
- ✓ Power Capability: 3 kW per card.
 - ✓ Max input / output current: 25A per card.
 - ✓ Voltage range in both sides: 98-136 V.
 - ✓ Digital control and configuration with a dedicated reprogrammable FPGA.
 - ✓ Supports multiple grounding schemes configurable at unit level.

