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List of Acronyms and Abbreviations

Abbr.	Description	Abbr.	Description
2-PC	Two-phase cooling	MTBF	Mean Time Between Failure
A/C	Aircraft	MTC	Motorised turbo-compressor(s)
AM	Additive Manufacturing	NM	Nautical mile
ВоР	Balance of Plant	OCV	Open circuit voltage
BPP	Bipolar plate	OEM	Original Equipment Manufacturer
CCM	Catalytic coated membrane	PAX	Passengers
CA	Consortium agreement	PFSA	Perfluorosulfonic acid
CFD	Computational fluid dynamics	PGS	Power Generation System
CL	Catalyst layer(s)	POD	PGS Unit
DCE	Dissemination, Communication	PPS	Propulsion Power System
	and Exploitation		
DMU	Digital mock-up	PEM	proton exchange membranes





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EASA	European Union Aviation Safety Agency	PEMFC	Proton Exchange Membrane Fuel Cell
EOL	End of Life	PM	Particulate matter
FC	Fuel Cell	RAC	Ram Air Channel(s)
FL250	Flight level 250 (= 25,000 ft)	RH	Relative humidity
GHG	Greenhouse gas	SAF	Synthetic aviation fuel
GT	Gas turbine	SLM	Supporting layer manufacturing
HX	Heat exchanger(s)	SoA	State of the Art
IP	Intellectual property	SRIA	Strategic Research and Innovation
			Agenda
IPN	Interpenetrating polymer networks	TMS	Thermal Management System
IPR	Intellectual property rights	TEFO	Total Engine Flame Out
ISA-35	International Standard Atmosphere	TO	Take-Off
KPI	Key Performance Indicator	ToC	Top of Climb
KSO	Key Strategic Orientations	TOGA	Take-Off and Go-Around
L2	Liquified hydrogen	TRL	Technology Readiness Level
MEA	Membrane Electrode Assembly	VOC	Volatile organic compounds
MCU	Motor control unit	ZEROe	Airbus initiative towards zero emission
			aircraft

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1. Executive Public Summary

Figure 1: air supply system schematic Baseline architecture

- Based on given requirements from deliverable 2.4 , several trade studies were performed to improve the overall system performance.
 - Several different architectures were traded against the proposal baseline
 - High Level PTS shared with Liebherr





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