

Designed
with the
future in
mind

**LITHIUM
READY**



centiel
continuous power availability

CumulusPower™ 400V
Modular UPS 10kW to 3.6MW



READY



SWISS
MADE

CumulusPower™ 400V

CumulusPower™ is a Swiss-made three-phase, online double-conversion and fully decentralized modular Uninterruptible Power Supply.

From **10kW** to **3.6MW** CumulusPower™ provides a high flexibility to adapt to any application. Using Decentralized Active-Redundant Architecture (DARA™) and a distributed modular design, CumulusPower is built for high availability and serviceability, helping reduce maintenance time and operational risk.

High Efficiency

up to 97.1% in VFI mode

Hot Swappable Modules

Fast Replacement of Intelligent Modules

Proven Reliability

30 years of experience

Distributed Architecture

No Single Point of Failure

Pay-as-you-grow scalability

Series of frame sizes

Unity Power Factor

kVA = kW

Up to 9-nines availability

High-availability architecture

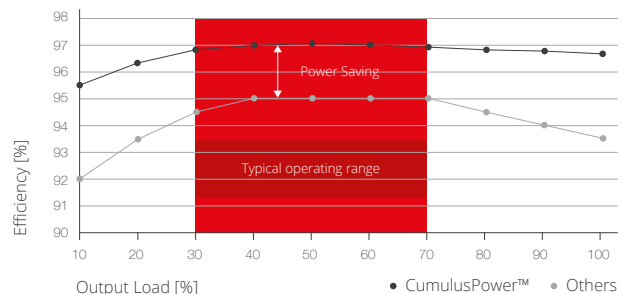
Low Total Cost of Ownership

Reduced Component Count Simplifies Maintenance

Low Total Cost of Ownership

High Efficiency 97.1% (VFI)

CumulusPower™ achieves up to 97.1% efficiency in double-conversion (VFI) mode, reducing total cost of ownership and carbon footprint.



Maximum Efficiency Management (MEM)

CumulusPower™ incorporates an Intelligent MEM function which matches the number of modules to the load demand by monitoring the level of optimum energy efficiency. At low load levels, any modules no longer required to maintain redundancy are placed into Active-Sleep mode, reducing overall energy consumption.

Active-Sleep modules can return online quickly when load increases, supporting high availability as load increases.

> 10-year DC capacitor design life + "plug-and-play" AC capacitors

- Helps reduce TCO
- Simplifies maintenance
- Lower cost in spare parts(MTTR) and simplifies routine maintenance.

Serviceability

Modular design allows fast replacement of Intelligent Modules, reducing Mean Time to Repair (MTTR), maximising availability and reducing costs.

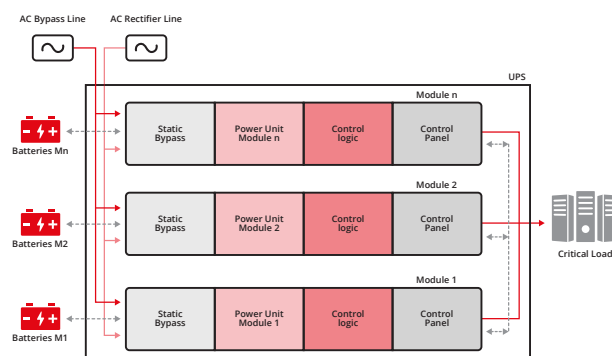


The Technology

Distributed Active-Redundant Architecture (DARA™)

CumulusPower™ was designed to meet the most demanding availability requirements by using distributed decision-making during critical failures and ensuring proper load sharing.

The communication between the Intelligent Modules is accomplished by means of a redundant **TripleMode™** communication bus.



IM 10/20/25



IM 50/60



Flexible Intelligent Module (IM)

Each module is a complete UPS. Thanks to Centiel's long experience in module-design, the CumulusPower™ Intelligent Modules are equipped with three independent power converters, one static bypass, all hardware and all software (intelligence and monitoring) functions, making them fully independent and capable of safely isolating from the multi-module system whenever an internal fault occurs.

CumulusPower™

IM 10/20/25

UPS with internal batteries

**From 10kW
to 100kW**



Model	CP050-I080-A1	CP050-I240-A0	CP100-I320-B0
Module Type	2 x IM10/IM20/IM25	2 x IM10/IM20/IM25	4 x IM10/IM20/IM25
Max Power	50kW	50kW	100kW
Internal Batteries Capacity	80 x (7/9Ah)	240 x (7/9Ah)	320 x (7/9Ah) or 80 x (28Ah)
H x W x D mm	1,315x510x815	1,980x510x815	1,980x730x815
Footprint	0.41 m ²	0.41 m ²	0.59 m ²

CumulusPower™

IM 10/20/25

UPS for External batteries

From 10kW
to 250kW



Model	CP100-E-A1	CP150-E-A0	CP251-E-B0
Module Type	4 x IM10/IM20/IM25	6 x IM10/IM20/IM25	10 x IM10/IM20/IM25
Max Power	100kW	150kW	250kW
Batteries	External	External	External
H x W x D mm	1,315x510x815	1,980x510x815	1,980x730x815
Footprint	0.41 m ²	0.41 m ²	0.59 m ²

CumulusPower™

19" Universal Rack

From 10kW
to 100kW



Model	CAB-UR025-E-CO	CAB-UR050-E-CO	CAB-UR100-E-CO	Battery Shelf KIT
Module Type	1 x IM10/IM20/IM25	2 x IM10/IM20/IM25	4 x IM10/IM20/IM25	-
Batteries	External	External	External	1 x 40 (7/9ah)
Max power	25 kW	50 kW	100 kW	-



Universal Rack
Frame

Universal Rack
Battery KIT

All Universal Racks include:

Electrical distribution

DC Battery MCB protection

1 x module

Bypass fuses

3 x module

Output parallel isolator

1 x module

System Manual Bypass

Connectivity board

5x Dry output, 5x Dry Input,
RS232, RS485, Bluetooth, Ethernet,
Slot for SNMP



CumulusPower™

IM 50/60

Bottom cable entry

From 50kW
to 3.6MW



Model	CP300-E-B0	CP600-E-2B0
Module Type	5 x IM50/IM60	10 x IM50/IM60
Max Power	300kW	600kW
Batteries	External	External
H x W x D mm	1,980x730x845	1,980x1,460x845
Footprint	0.61 m ²	1.19 m ²

CumulusPower™

IM 50/60

Top cable entry

From 50kW
to 3.6MW



Model	CP300T-E-B0	CP600T-E-2B0
Module Type	5 x IM50/IM60	10 x IM50/IM60
Max Power	300kW	600kW
Batteries	External	External
H x W x D mm	1,980x730x845	1,980x1,460x845
Footprint	0.61 m ²	1.19 m ²

Technical Datasheet



Model		CAB-CP050-I080-A1 CAB-CP050-I240-A0 CAB-UR050-E-Co	CAB-CP100-E-A1 CAB-CP100-I320-B0 CAB-UR100-E-C1	CAB-CP150-E-A0	CAB-CP251-E-B0	
General Data	Module type	IM10/IM20/IM25	IM10/IM20/IM25	IM10/IM20/IM25	IM10/IM20/IM25	
	Nom. power per module [kVA = kW]	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25	10 / 20 / 250	
	Max. power per frame [kVA = kW]	50	100	150	250	
	Number of modules per frame	1-2	1-4	1-6	1-10	
	Max. power per system [kVA = kW]	1500	1500	1500	1500	
	Connection Type	Bottom	Bottom	Bottom	Bottom	
	Topology / technology	Online double conversion/DARA (Distributed Active-redundant Architecture)				
Input	Mains	Input wiring	3 Ph + N + PE			
		Rated voltage	380/400/415Vac			
		Voltage range	For loads <100% (–25%, +20%) <80% (–32.5%, +20%) <60% (–35%, +20%)			
		Input frequency	40-70 Hz			
		Total Harmonic Distortion	THDi<3% for linear load, THDi<5% for nonlinear load			
		Input power factor	0,99			
	Bypass	Input wiring	3 Ph + N + PE			
		Rated voltage	360/400/420 Vac			
		Input frequency	50/60 ±2/4% (selectable)			
	Battery	Rated voltage	360-480 Vdc (the number of batteries can be selected)			
		Internal batteries (7/9Ah)	I080: 80 I240: 240	E: External I320: 320	E: External	E: External
		Type	Lead-Acid/NiCd/Lithium.			
		Blocks [LA]/Cells[NicAd]	20-50 IM20/IM25: 30-50			
		Charger (Amp/module)	20			
Output	Inverter	Output wiring	3Ph+N+PE			
		Voltage	380/400/415 Vac±1%			
		Frequency	Tracking the bypass input (Online Mode)			
		Waveform	Sine wave (THDv<1% for linear load THDv<3% for non-linear load)			
		Output power factor	1			
		Efficiency	97,1%			
		Overload capacity	Inverter 124% continuous 125% overload for 10 min 150% overload for 1 min Bypass 135% overload for long term <1000% overload for 100ms			
		Short circuit capability	3 x IN			
	Bypass	Efficiency	99,4%			
Environment	Operating temperature	0-40°C (No power derating)				
	Storage temperature	-40-70°C				
	Relative humidity	0%-95% (No condensing)				
	Maximum operating altitude	1000 m. above 1000 m, derating 1% for each additional 100 m				
	Audible Noise	< 65dB				
Others	Dimensions (H x W x D) [mm]	1315 x 510 x 815 1980 x 510 x 815	1315 x 510 x 815 1980 x 730 x 815	1980 x 510 x 815	1980 x 730 x 815	
	Weight [Kg] without modules	125 180	107 225	148	210	
	Certifications	EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 CE RoHS				
	Communications	Basic RS485 RS232 2 Dry Input. Pro Basic + Dry contacts Ethernet Bluetooth				

+ The information in this document is subject to change without notice and should not be construed as a commitment by Centiel S.A.
TDS_Rev07-CW_Rev05

Technical Datasheet



Model		CAB-CP300-E-Bo CAB-CP300T-E-Bo	CAB-CP600-E-Do CAB-CP600T-E-2Bo
General Data	Module type	IM50/IM60	IM50/IM60
	Nom. power per module [kVA = kW]	50/60	50/60
	Max. power per frame [kVA = kW]	300	600
	Number of modules per frame	1-5	1-10
	Max. power per system [kVA = kW]	3600	3600
	Connection Type	Bottom / Top	Bottom / Top
	Topology / technology	Online double conversion/DARA (Distributed Active-redundant Architecture)	
Input	Mains	Input wiring	3 Ph + N + PE
		Rated voltage	380/400/415Vac
		Voltage range	For loads <100% (-25%, +20%) <80% (-32.5%, +20%) <60% (-35%, +20%)
		Input frequency	40-70 Hz
		Total Harmonic Distortion	THDi<3% for linear load, THDi<5% for nonlinear load
		Input power factor	0,99
	Bypass	Input wiring	3 Ph + N + PE
		Rated voltage	360/400/420 Vac
		Input frequency	50/60 ±2/4% (selectable)
	Battery	Rated voltage	360-480 Vdc (the number of batteries can be selected)
		Internal Batteries (7/9Ah)	E External
		Type	Lead-Acid/NiCd/Lithium.
		Blocks [LA]/Cells[NicAd]	20-50 IM20/IM25: 30-50
		Charger (Amp/module)	40
	Output	Output wiring	3Ph+N+PE
		Voltage	380/400/415 Vac±1%
		Frequency	Tracking the bypass input (Online Mode) 50/60 Hz±0,05% (Battery Mode)
		Waveform	Sine wave (THDv<1% for linear load THDv<3% for non-linear load)
		Output power factor	1
		Efficiency	97,1%
		Overload capacity	Inverter 124% continuous 125% overload for 10 min 150% overload for 1 min Bypass 135% overload for long term <1000% overload for 100ms
		Short circuit capability	3 x IN
	Bypass	Efficiency	99,4%
Environment	Inverter	Operating temperature	0-40°C (No power derating)
		Storage temperature	-40-70°C
		Relative humidity	0%-95% (No condensing)
		Maximum operating altitude	1000 m. above 1000 m, derating 1% for each additional 100 m
		Audible Noise	< 65dB
Others	Others	Dimensions (H x W x D) [mm]	1,980x730x845 1,980x1,460x845
		Weight [Kg] without modules	209 396
		Certifications	EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 CE RoHS
		Communications	Basic RS485 RS232 2 Dry Input. Pro Basic + Dry contacts Ethernet Bluetooth

+ The information in this document is subject to change without notice and should not be construed as a commitment by Centiel S.A.
TTDS_Rev07-CW_Rev05

centiel
continuous power availability



www.centiel.com

