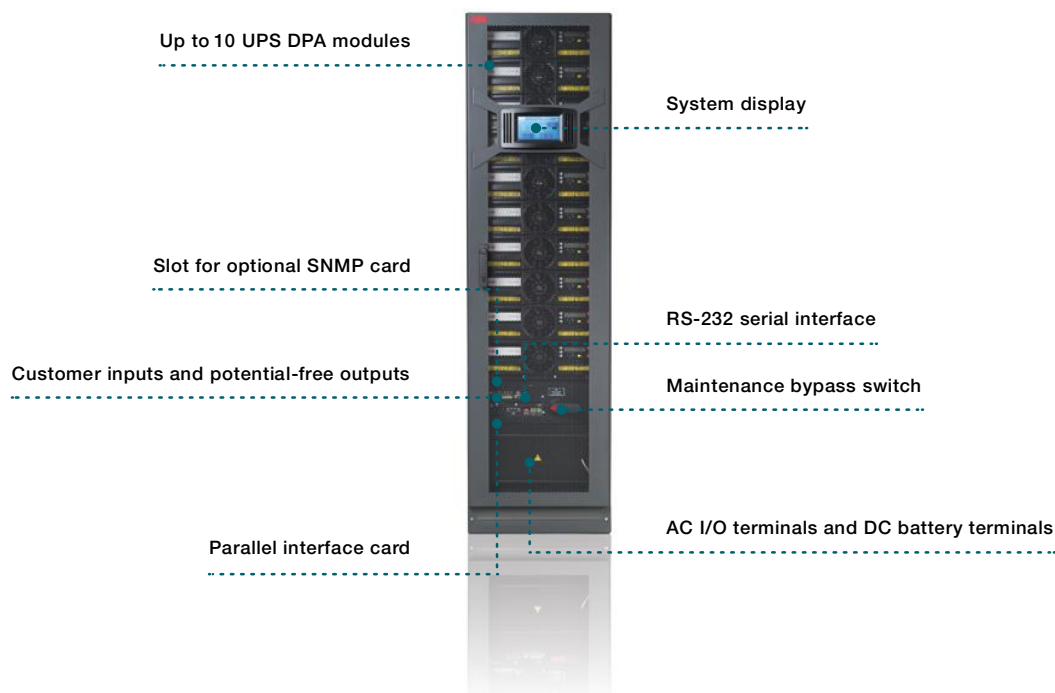


# DPA UPScale ST

## The modular UPS designed for low and medium power applications



ABB's DPA UPScale ST is available for high density applications requiring an all-in-one power protection solution that includes frame, UPS, battery and communications. The solution delivers power protection from 10 kW to 200 kW in 10 kW or 20 kW modular steps. For a continuously growing

mid-sized infrastructure, DPA UPScale ST can be paralleled horizontally to increase the capacity up to 400 kW. This fully scalable and easily maintained UPS gives you unparalleled uptime and energy efficiency.

### 99.9999% (6 nines) availability

- Decentralized Parallel Architecture
- No single points of failure
- Redundant capacity (N+1) per frame
- Replace or add modules with no downtime
- Short mean time to repair

### Low total cost of ownership

- Up to 96% true online efficiency
- Eco-mode efficiency  $\geq 98\%$
- Unity power factor (kW = kVA)
- Low input harmonic distortion (THDi  $< 3\%$ )
- Small footprint/high power density (472 kW/m<sup>2</sup>)

### All-in-one solution

- Power range from 10 kW to 200 kW in a single frame
- Internal batteries for short autonomies and external battery cabinets for long autonomies
- User-friendly interface per module and system level
- Remote control and monitoring options available

### Efficient service concept

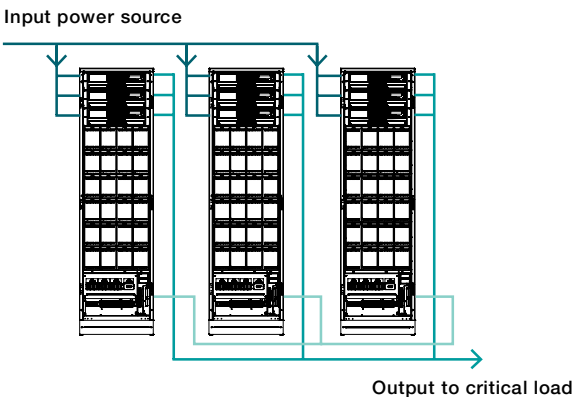
- Simple power upgrade
- Fast maintenance
- Full front access
- Reduced spare parts needed

# DPA UPScale ST

## Product features

### Full vertical and horizontal scalability

The DPA UPScale ST's modular design provides a vertical scalable power system from 10 kW up to 200 kW (180 kW N+1) in a single cabinet in 10 kW or 20 kW modular steps. For a continuously growing mid-size infrastructure, the DPA UPScale ST system can be paralleled horizontally to increase the capacity up to 400kW. The ability to increment the power as the critical load grows optimizes the operating efficiency and reduce the initial cost for installations.



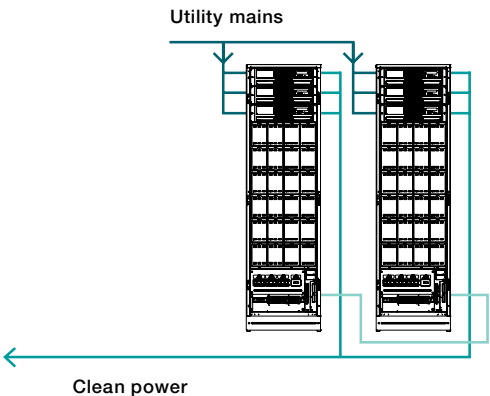
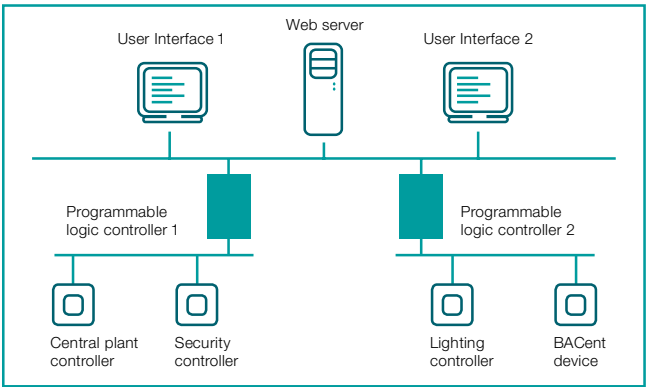
Cabinet type	ST40	ST60	ST80	ST120	ST200
Number of modules per cabinet	1 to 2	1 to 3	1 to 4	1 to 6	1 to 10
Parallel frames per system	4	4	4	3	2
Max. number of modules per system	8	12	16	18	20
Max. total system capacity w/o redundancy	160 kW	240 kW	320 kW	360 kW	400 kW

### The ideal solution for small- to medium-sized critical power IT applications

The DPA UPScale ST can be deployed in a variety of small- to medium-sized system architectures. In addition to traditional server load applications, the DPA UPScale ST is ideal to protect critical applications such as building management systems (BMS). Large facilities are often provided with BMS to control and monitor the building's mechanical and electrical systems such as ventilation, lighting, fire alarms and security. The BMS is designed to create and maintain a safe,

productive and comfortable environment, thus increasing operational efficiency, decreasing the energy consumption and ensuring the safety of personnel and equipment.

The DPA UPScale ST offers clean backup power for sensitive electronic devices (controllers, I/O devices and user interfaces) designed to monitor and control the infrastructure thus avoiding loss of data or damage to equipment.

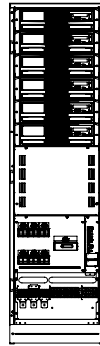


# DPA UPScale ST

## Available models



Cabinet type	ST40	ST60
Number of modules	1 to 2	1 to 3
Dimension w × h × d	550 × 1135 × 775 mm	550 × 1975 × 775 mm
Internal battery capacity	Up to 80 blocks 7/9 Ah	Up to 240 blocks 7/9 Ah



Cabinet type	ST80	ST120	ST200
Number of modules	1 to 4	1 to 6	1 to 10
Dimension w × h × d	550 × 1135 × 775 mm	550 × 1975 × 775 mm	550 × 1975 × 775 mm
Internal battery capacity	–	–	–

### UPS cabinet configuration

- Up to ten online double conversion UPS modules
- LCD control panel per module
- Input, bypass and battery protection fuses
- Manual bypass switch
- Single- and dual-input feed available
- Free space to place internal batteries (only ST40/ST60)

### Options

- Parallel system configuration
- Integrated back-feed protection
- Cold start
- Halogen-free cabling
- Internal batteries (only ST40/ST60)
- Battery temperature sensor
- Remote panel (graphical touch screen display)
- System display (graphical touch screen display)
- Control and monitoring (ModBus RS-485, ModBus TCP/IP, SNMP)
- External battery cabinets

# DPA UPScale ST

## Technical specification

General data	ST40	ST60	ST80	ST120	ST200
System power range	10–400 kW				
Nominal power / module	10 kW / 20 kW				
Nominal power / frame	40 kW	60 kW	80 kW	120 kW	200 kW
Number of UPS modules	1 to 2	1 to 3	1 to 4	1 to 6	1 to 10
Max. number of inbuilt batteries (7/9 Ah)	80	240	–	–	–
Output power factor	1.0				
Topology	Online double conversion				
Parallel configuration	Up to 20 modules (up to 4 frames)				
UPS type	Modular (Decentralized Parallel Architecture)				
Input					
Nominal input voltage	3×380 / 220 V + N, 3×400 / 230 V + N, 3×415 / 240 V + N				
Voltage tolerance	For loads <100% (–20%, +15%), <80% (–25%, +15%), <60% (–35%, +15%)				
(referred to 3×400 / 230 V)					
Input distortion THDi	≤3%				
Frequency	35–70 Hz				
Power factor	0.99				
Output					
Rated output voltage	3×380 / 220 V + N, 3×400 / 230 V + N, 3×415 / 240 V + N				
Voltage distortion	<1.5%				
(referred to 3 × 400 / 230 V)					
Frequency	50 Hz or 60 Hz				
Overload capability	1 min.: up to 150% / 10 min.: up to 125%				
Unbalanced load	100% (all three phases regulated independently)				
Crest factor	3:1 (load supported)				
Efficiency					
Overall efficiency	Up to 96%				
In eco-mode configuration	98%				
Environment					
Storage temperature	–25 °C to +70 °C				
Operating temperature	0 °C to +40 °C				
Altitude configuration	1000 m without derating				
Communications					
LCD	Yes (per module); system display optional (graphical touch screen display)				
LEDs	LED for notification and alarm				
Communication ports	USB, RS-232, SNMP slot, potential-free contacts				
Standards					
Safety	IEC / EN 62040-1				
Electromagnetic compatibility (EMC)	IEC / EN 62040-2				
Performance	IEC / EN 62040-3				
Product certification	CE				
Manufacturing	ISO 9001:2008, ISO 14001:2004, OHSAS18001				
Weight, dimensions					
Weight (with modules / without batteries)	Up to 135 kg	Up to 238 kg	Up to 168 kg	Up to 262 kg	Up to 389 kg
Dimensions w × h × d (mm)	550 × 1135 × 775	550 × 1975 × 775	550 × 1135 × 775	550 × 1975 × 775	550 × 1975 × 775

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