# **APS DC Cabinet Systems**

# High Power DC Supply & DC Regenerative Load Cabinet Systems





DC Power

For DCS, DCB or 6RL Series

120kW to 1920kW

**Auto Ranging Output** 

Up to 2000Vdc

24U or 42U Rack Height

### **INTRODUCTION**

For DC power test applications ranging from 120kW to 1920kW (1.92MW), Adaptive Power Systems offers integrated cabinet systems using paralleled DC power supplies or regenerative DC loads. The systems contain all AC input power wiring and output wiring or bus bars to create turn-key high power DC power systems and loads.

Cabinets heights of 24U or 42U are offered to accommodate up to 120kW in a 24U cabinet or up to 240kW in a 42U cabinet. All cabinets are made using 15kW or 30kW master DC supply or Load and parallel connected 15kW or 30kW slave units. The masters controls the entire system for ease of operation. All individual units are 19" rack mount.

Custom combinations of both DC power supply and regenerative DC load or multiple voltage range combinations per cabinet are available upon request.

Up to 13 cabinets can be paralleled to create systems above 240kW. Some maximum total current limitations apply. This means not all DCS, DCB or 6RL models qualify for such configuration. Power connections, share bus and master/slave cabling between paralleled cabinets are included with Multi-cabinet systems.



Worldwide Supplier of Power Conversion Equipment

# **DC BUS CONNECTIONS**

By default, the DC connection (or DC bus) connects all units in parallel with copper bars resp. Additional high voltage cables for high voltage systems. The DC bus is directly accessible on specific connection points (screws). The multi-cabinet solutions can have up to three DC buses which are connected in parallel from cabinet to cabinet via cables.

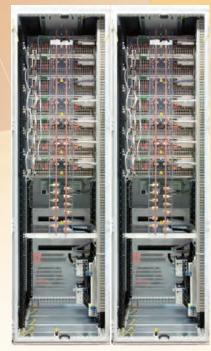
#### **SAFETY DESIGN**

The construction of the cabinets ensures high safety for personnel. This is achieved by protective covers on the DC bus by default, as high voltage can be present there. For other situations and additional safety, the cabinets can be equipped with an optional emergency off system, designed to cut off the entire cabinet from the AC supply in case of an emergency. The cut-off is either initiated manually with a switch or by door contacts (interlock loop) when opening the cabinet's rear doors.

# **CONFIGURATION EXAMPLES**

For single cabinet requirements, two cabinet heights are offered. The 24U cabinet can accommodate up to four 30kW DC power supplies or up to four 30kW regenerative DC loads. Power levels to 120kW are supported by this cabinet size. For requirement up to 240kW, the 42U cabinet is needed. This cabinet height supports up to eight 30kW supplies or loads.

Above 240kW, two or three cabinets can be paralleled to create higher power systems.



DC Bus Bar Connections







24U Cabinet System

Front view with door Back view

## **SPECIFICATIONS:**

PARAMETER	24U CABINET	<b>42U CABINET</b>
Width	600 mm / 23.6"	600 mm / 23.6"
Depth	1000 mm / 39.4"	1000 mm / 39.4"
Height	24U / 42" inside	42U / 73.5" inside
AC Input Power	Terminals, 480V, 3 Phs+N+G	Terminals, 480V, 3 Phs+N+G
Max. No. of 4U Chassis	4	8
Max. Power	120 kW	240 kW

# **OPTIONS:**

OPTION	DESCRIPTION	
Casters	125 mm height, fixed or swivel	
Remote Control	Master/Slave wiring, Analog I/O or M/S Bus.	
Bus Amplifier	Required for multi-cabinet systems. Max 32 units in parallel.	
Mechanical	Filler Panels, 2U, 3U or 4U. With or w/o air holes.	

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