

Schematic	IGBT based Switching Power Supply
Input	9KW: 3φ4W, 400V±10% 50Hz/60Hz
Constant Voltage Operation	
Output voltage	DC full range adjustable
Line regulation	≤0.3% rms
Load regulation	≤0.5% rms
Ripple & Noise	≤0.3%FS+10mVrms
Time drift	≤0.5% rms
Temperature drift	≤0.1% / 1°C
Setting accuracy	± (0.5% FS + 50mV) (25±5°C)
Constant Current Operation	
Output Current	DC full range adjustable
Line regulation	≤0.3% rms
Load regulation	≤0.5% rms
Ripple & Noise	≤0.5%FS+10mVrms
Time drift	≤1% rms
Temperature drift	≤0.3% rms / 1°C
Setting accuracy	± (0.5% FS + 50mA) (25±5°C)
Ramp Output	
Slew rate time range	1 ... 9999s
Time resolution	1s
Display	
Voltmeter	4.3" TFT Color Display
Ammeter	4.3" TFT Color Display
Voltage resolution	00.00V-99.99V
Current resolution	00.00A-99.99A
Reading accuracy	± (0.5% FS +3 digits) (25±5°C)
Protection	
Over Voltage Protection (O.V.P.)	Built-in OVP protection with limit of 110% rated voltage.
Over Current Protection (O.C.P.)	Built-in OCP protection with limit of 110% rated current.
Over Temperature Protection (O.T.P.)	Built-in OTP protection with heat sink temperature limit of 7°C±5%.
General	
Cooling method	Forced AIR
Operating environment	0°C ... 40°C, 10% ... 80%RH
Storage environment	-20°C ... 70°C, 10% ... 90%RH
Input module	Power socket or terminal block

DP-D GEN2 SERIES HIGH-PERFORMANCE POWER SUPPLIES

As an improvement over its predecessor (DP-D Series), the DP-D Gen2 Series high performance power supply has been enhanced with a next generation digital control unit, which is immediately apparent from the large and informative display on the front panel. All important actual and setpoint values are clearly displayed and settings can be quickly accessed. In addition, units with option [Y] have a large color display with 4.3" diagonal and offer the possibility to program complex test sequences by configuring current/voltage/rise time in relation to time (square wave output, ...) and to observe the actual values over time. Furthermore, option [Y] expands the connectivity by adding a LAN port and a USB (host) port on the front panel.

Designed for high-performance laboratory or industrial applications, the DP-D Gen2 series high-performance power supply is designed for 24/7 continuous operation, completely maintenance-free. Laboratory power supplies of this series can be manufactured on request with output power up to the megawatt range and configured with a variety of options. Depending on the configuration, DP-D Gen2 Series high-performance power supplies can be completely externally analog or digitally controlled and are available as either Stand-Alone or Rack-Mount versions, allowing for easy integration into existing infrastructures.

Options

The following is a brief description of the possible additional options for high-performance power supplies of the DP-D Gen2 series. A detailed description can be found in the datasheet of the series, should you have any questions contact our support during our opening hours via the live chat or by e-mail and we will gladly assist you.

[Z1] ACCESSORY: 2m Cable with SCHUKO, CEE Plug male blue 32A or red 32A

The laboratory power supply will be supplied with a 2m connection cable and matching plug:

Output power $\leq 3300\text{W}$ – SCHUKO

Output power $> 3300\text{W}$ – CEE plug Blue 32A 230V

Output power $\geq 6000\text{W}$ – CEE plug Red 32A 400V

[E] 19 Inch Rack-Mount Version

The laboratory power supply comes with rack-mount brackets (models below 10kW only).

[U] Ext. analog control U

Input for external control of the output voltage via an analog control signal.

[L] Ext. analog control I

Input for external control of the output current via an analog control signal.

[F] Ext. analog feedback U

Returns the actual value of the output voltage.

[G] Ext. analog feedback I

Returns the actual value of the output current.

[A] Interlock & Ext. Output On/Off Ctrl.

Input for controlling the status of the output of the laboratory power supply (on / off), switchable as "Interlock" or external control.

[R] Reverse current protection

Reverse current protection when operating with large inductive or capacitive loads.

[V] Polarity switch

Allows turning the output polarity during operation.

[S] Remote Sensing

Measuring the voltage at the load and compensating line losses.

[Y] Programmable

The high performance power supply is enhanced by a 4.3" color display and a even more advanced digital control unit. In addition to the standard connectivity (RS232, RS485), a LAN port and USB (host) are built in. The advanced control unit allows the power supply to be programmed autonomously with complex voltage / current curves over time.