



MPD and MPS Series – Selection Guide

Main Key Features	MPD	MPS
		
Description	10W DC-DC Fixed Polarity High Performance module	
Size	Extremely Compact, MPD and MPS share the same footprint and mounting	
Approvals	UL and CE Marked	
HV Output models	1, 2.5, 5, 10, 15, 20, 30 kV	1, 3, 5, 10, 15, 20, 30 kV (35 kV coming soon)
Control	Digital and differential analogue control is standard. Current control is available when using digital mode.	Differential analogue and internal potentiometer control is standard. Digital control is optional (DCC2, DCC4)
Ripple	4 – 60 mV _{pp} across the output range, specified in multiple frequency bands	10 – 250 mV _{pp} across the output range
Stability	10 ppm (1h), 25 ppm (8h), 100 ppm (1000h)	70 ppm (1h), 200 ppm (8h), 500 ppm (1000h)
Temp. Coeff.	10 ppm/°C	25 ppm/°C (HS option: 10 ppm/°C)
Options	No additional options currently available	VCC: variable current control HS: high stability DCC2: digital control RS-232 DCC4: digital control RS-485 LLxxxx: different lead length

Both MPD and MPS are **highly versatile** units and cover a wide range of applications, footprint and mounting are identical for both models.

The **MPS** series covers a slightly wider range of output voltages and offers a 20W version.

The **MPD** is the right choice for the following opportunities:

- **Higher performance** required. The MPD utilizes digital oscillator circuitry which significantly reduces jitter in the converter section, thus resulting in improved noise and stability.
- **Digital control**: the MPD is less expensive than the MPS with DCC option, and features higher performance.
- **Current control** option: comes as standard when the MPD is used in digital mode
- **Versatility**: having both digital and analogue controls in the same PSU, the MPD can be operated from a simple analogue interface during a development phase, then continue with the same PSU using digital control for system integration.

The MPS remains a great competitive option for analog, high performance, high reliability requirements, where price and lead-time* can make a difference.

Note: **MPD and MPS do not share the same control interface**, so they are not a direct plug-in replacement for each other. They do, however, have the same footprint and connectors, which will simplify integration within existing designs.

* please consult with HVSales@Spellmanhv.co.uk for **MPS and MPD ready-to-ship availability**