

TDK

DDSM Series
Digitaly controlled DC-DC converter

TDK·Lambda

Isolated design with programmable conversion ratios

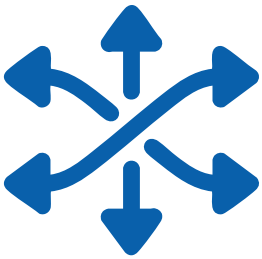
DDSM Series

Available at ePLAN data portal



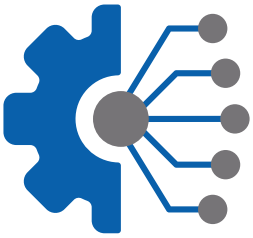
The DDSM series offers high-performance DC-DC converters with 120 W and 240 W output power in a compact, lightweight design. The DDSM series is highly flexible thanks to its isolated design and wide input and output voltage range, allowing it to be used for a variety of applications. The DC-DC converter series is fully digitally controlled, with a 7-segment display showing precise system values, status and alarm codes. The system can be operated directly via three push buttons. An advanced communication interface is also available for operating and maintaining the DDSM using the PowerCMC software tool and Modbus over USB. An additional DC-OK contact provides further signaling opportunities. Thanks to its push-in terminals, the DDSM series guarantees simplified installation and reliable performance in diverse industrial environments.

Benefits



FLEXIBLE & VERSATILE

Thanks to the wide input and output voltage range and isolated design, the two DDSM models can be used for a variety of applications, reducing inventory and increasing flexibility. These compact, lightweight models are available with 120 W or 240 W output power to suit different requirements.



ADVANCED CONNECTIVITY

The DDSM Series features Modbus over USB, enabling seamless integration, remote control and real-time monitoring. The DDSM is compatible with the comprehensive PowerCMC control and monitoring centre, providing efficient system management and diagnostics.



USER-FRIENDLY OPERATION

A clear digital display shows precise system values, status and alarm codes, all of which can be easily set up and adjusted via intuitive push-button controls. The option of local or remote operation provides maximum convenience.



EASY INSTALLATION & MAINTENANCE

Push-in terminals and a compact design simplify installation, wiring and maintenance. The robust design ensures reliable performance in a variety of industrial settings. They also reduce installation time and minimise the need for tools.

Technical specifications

		DDSM120-0555-R0	DDSM240-0555-R0
Output voltage	*nom.*	5..55V_{DC}	
Output voltage range	*max.*	4.7..57V_{DC}	
Output current	*nom.*	1.0..5.0A	1.0..10.0A
Input voltage	*nom.*	12..48V_{DC}	
Input voltage range	*max.*	10.8..52.8V_{DC}	
Input current	*max.*	6A	12A
Output power[1]	*max.*	120W	240W
Conversion efficiency[1]	*min.*	91.7%	93.0%
Power losses[1]	*max.*	10.9W	18.1W
No-load consumption[2]	*max.*	5.3W	5.0W
Service life MTBF[3]	*min.*	638,000h	
Early life MTBF[3]	*min.*	1,173,000h	
Ambient operating temperature	*max.*	-25..+70°C_{amb}	
Power derating	*min.*	0.8W/°C_{amb} (0.44W/°F_{amb})	1.6W/°C_{amb} (0.89W/°F_{amb})
	max.	4.0W/°C_{amb} (2.22W/°F_{amb})	8.0W/°C_{amb} (4.44W/°F_{amb})
Operating altitude	*nom.*	3000mASL (9842ftASL)	
	max.[3]	6000mASL (19685ftASL)	
Percental power derating	*min.*	5% per 1000m (3281ft)	
Temperature derating	*min.*	5K per 1000m (9K per 3281ft)	
Local HMI		7 segment, 2 digit display with 3 push buttons to operate	
Remote HMI		PowerCMC	
Connectivity		Mini-USB	
Physical interface		Modbus over USB	
Class of protection		I / IEC 61010-1, IEC 62368-1 (Ed.3)	
Ingress protection degree		IP 20	
Radiated noise emission		Class B	
Conducted noise emission		Class B	
Width x Height x Depth		40 x 115 x 116.6mm	
Weight		500g (1.10lb)	
Certifications (CB, UL, UR)		IEC/EN/UL/CSA 61010-1, 61010-2-201 (E356563) IEC/EN/UL/CSA 62368-1 (Ed.3) (E511889)	
Designed to meet		IEC 60950-1, UL 60950-1, IEC 62477-1, EN60204-1, UL508	

[1] 48V_{DC}, 100% P_{out_nom} | [2] 48V_{DC}, 0% P_{out_nom} [3] | Telcordia SR-332 Issue 4

ⓘ Unless otherwise stated, all values are specified in normal mounting position, at full load, nominal input and output voltages, 25°C ambient temperature and a run-in time of 5 minutes.

Add-ons and accessories

D1SE power supplies
Essential power supplies without compromises.



D1SE120-24-XX
Power supply, input 100 – 240VAC, output 24VDC/5A, push-in terminals. Optional DC-OK and conformal coating.



D1SE240-24-XX
Power supply, input 100 – 240VAC, output 24VDC/10A, push-in terminals. Optional DC-OK and conformal coating.



D1SE480-24-XX
Power supply, input 100 – 240VAC, output 24VDC/20A, push-in terminals. Optional DC-OK and conformal coating.

www.emea.lambda.tdk.com/de/landing/d1se

DRB 3 phase power supplies
Three-phase power supplies with compact dimensions and energy saving efficiencies.



DRB120-12-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 12VDC/10A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.

DRB120-24-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 24VDC/5A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.



DRB240-24-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 24VDC/10A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.

DRB240-48-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 48VDC/5A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.



DRB480-24-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 24VDC/20A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.

DRB480-48-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 48VDC/10A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.



DRB960-24-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 24VDC/40A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.

DRB960-48-3-XX
Power supply, input 3x380..500VAC | 530..675VDC, output 48VDC/20A, DC-OK, INHIBIT, screw or push-in terminals. Optional conformal coating.

www.emea.lambda.tdk.com/de-en/landing/drb-3-phase

DUSH DC-UPS

In mission critical applications, the DUSH serves as a backup solution to deliver power from a battery.



DUSH960-1248-0M
20A input/output/battery, 12..48V programmable, buck-boost converter, battery interface, Modbus/RTU, LCD, 5A AUX output, push-in terminals

DUSH960-1248-1M
20A input/output/battery, 12..48V programmable, buck-boost converter, battery interface, Modbus/RTU, LED indication, push-in terminals

www.emea.lambda.tdk.com/uk/products/dush

PowerCMC



Control and monitoring center software via Modbus/RTU and USB.

www.emea.lambda.tdk.com/uk/technical-centre/software-tools

Our team of experts will be happy to help you find the best power supply for your application.



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Local Distribution

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