https://product.tdk.com/en/power/ddsm
www.emea.lambda.tdk.com/ddsm

Programable 120 and 240W DIN Rail Mount Isolated DC-DC converters

Industrial | Test | COMM | Semi-Fab | Factory Automation | Renewable

The DDSM 120W and 240W programmable DC-DC converters have a 12 to 48Vdc input and a wide 5 to 55V output range. They feature a 2,200 Vdc isolation from input to output and output to ground. These digitally controlled modules have control and monitoring software via Modbus over USB for remote control and real-time monitoring. In addition the digital display shows the device settings, system alarm status, status information with the ability to be manually operated via three push buttons on the front panel.

Features	Benefits
• Wide Input and Output Ranges	• Supports Multiple System Voltages
• MODBUS over USB Communication	• Remote Programming
• 2,200Vdc Insulation from Input & Output to Ground	• Offers an Independent Isolated Voltage for PoE
• User Friendly Digital Display with Push Buttons	• Suitable for Local Programming & Diagnostics
• Up to 93% Efficient & Low Standby Losses	• Energy Saving

Model Selector

Model	Nominal Input Voltage (V)	Nominal Output Voltage (V)	Output Current (A)	Maximum Power (W)	Input Current at nominal input (A)
DDSM120-0555-R0	12 to 48	5 to 55	1 to 5	120	6
DDSM240-0555-R0	12 to 48	5 to 55	1 to 10	240	12

Specification

Model(s)		DDSM120-0555-R0	DDSM240-0555-R0
Input			
Input Voltage Range	Vdc	12 to 48	
No Load Power Consumption	W	5.3	5
Efficiency	%	91.7	93
onducted & Radiated EMI	-	Class B	
Safety Certifications and Markings	-	IEC/EN/UL/CSA 61010-1, 61010-2-201, IEC/EN/UL/CSA 62368-1, CE Mark and UKCA Mark	

Specification

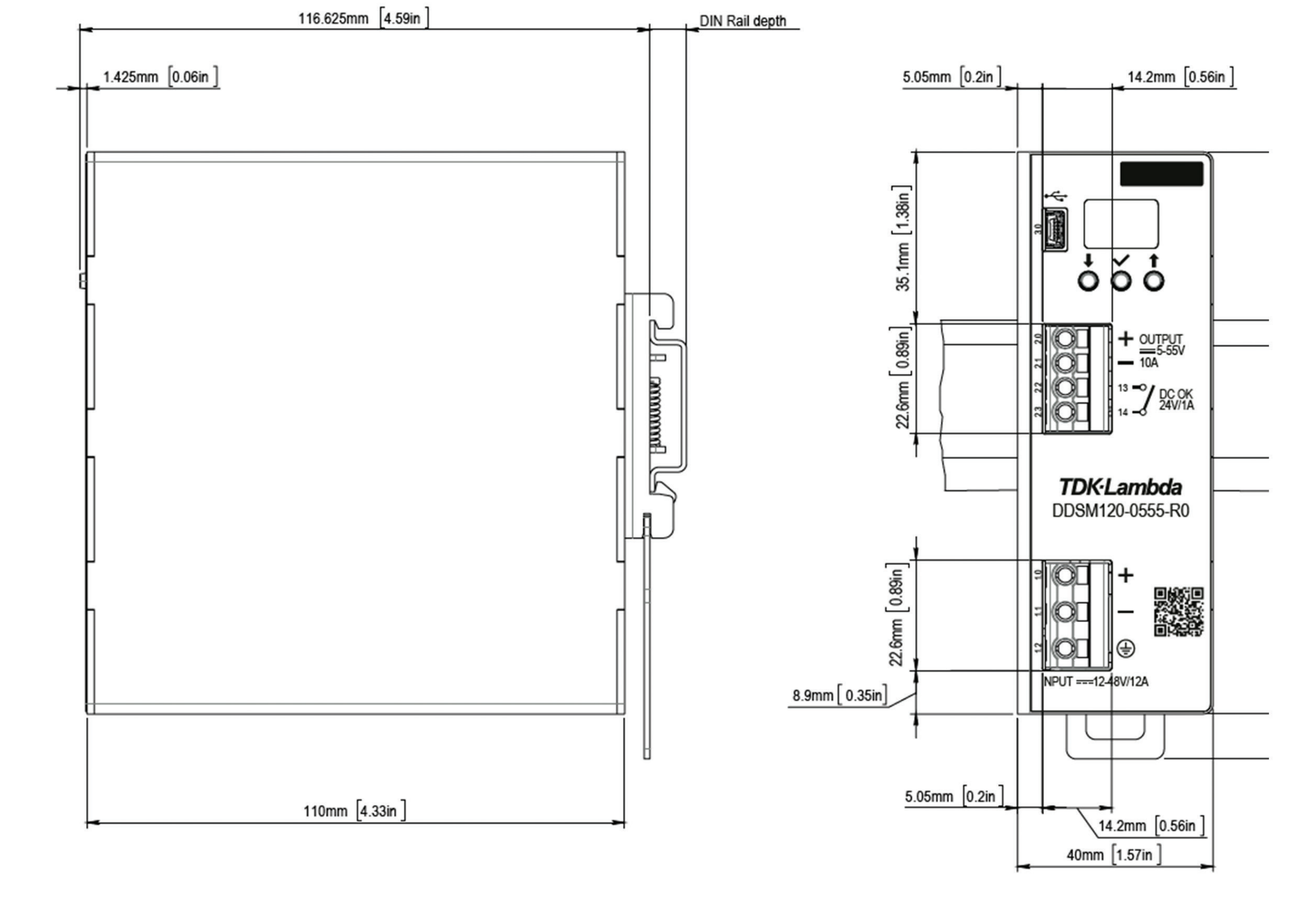
Model(s)	Standard	Test Level	Criteria	Notes: See Immunity test report on website
Immunity				
ESD	EN61000-4-2	4kV / 8kV	A	Contact / Air
Radiated Susceptibility	EN61000-4-3	80M -1GHz: 10V/m 1.4 - 2.0GHz: 3V/m 2.0 - 2.7GHz: 1V/m	A	
Electrical Fast Transient Burst	EN61000-4-4	1kV	A	
Magnetic Fields	EN61000-4-8	30A/m	A	

Specification

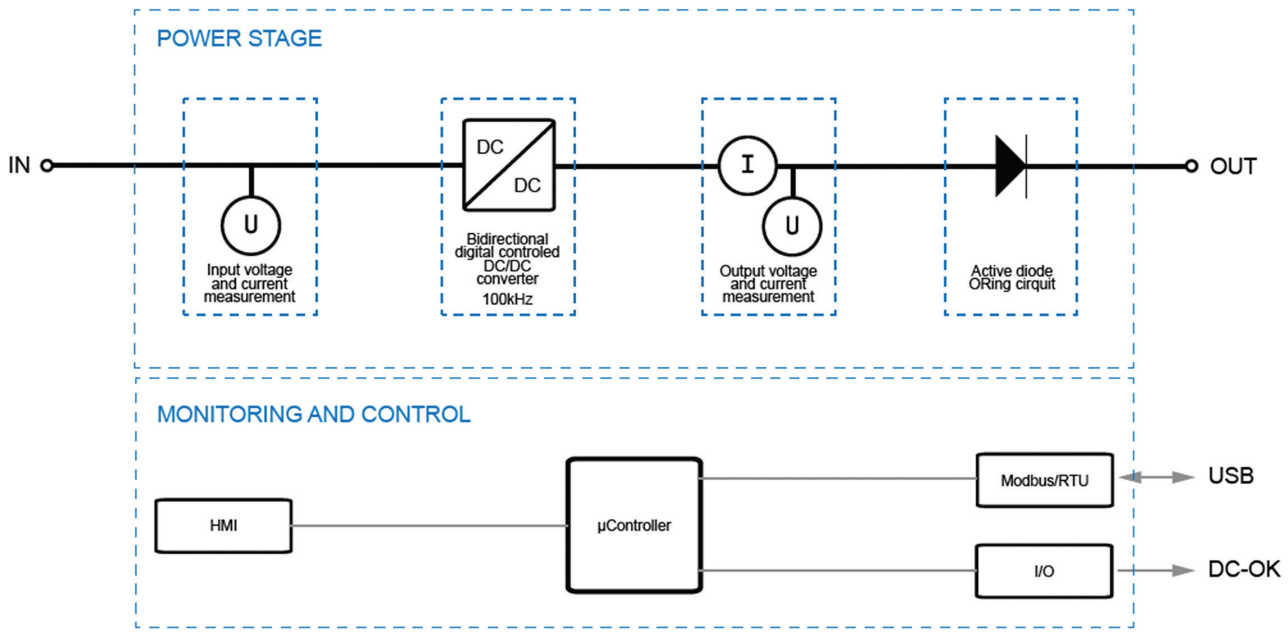
Model(s)		DDSM120-0555-R0	DDSM240-0555-R0
Output			
Switching Frequency	kHz	100	
External Load Capacitance	uF	10000 start-up	
Ripple & Noise	mVpp	≤ 200	
Temperature Coefficient	%/°C	0.02	
Minimum Load	-	No minimum load required	
Overcurrent Protection	%	Yes, hiccup or constant current mode	
Overvoltage Protection	-	62V (max)	
Overtemperature Protection		Yes, auto recovery	
Remote Sense		No remote sense	
Remote On/Off	-	See programming instructions	
Parallel Operation	-	Possible, see Technical Specification	
Series Operation	-	Not possible	
DC OK Relay	-	Normally open, 24V 5A maximum	
Environmental			
Operating Temperature	°C	-25 to +70 (Max), 25 to +55° (Nominal)	
Storage Temperature	°C	-40 to +85	
Humidity (non condensing)	%RH	95 (Operating & Storage)	
Cooling	-	Convection	
Altitude	m	3,000 nominal	
Withstand Voltage (For 1 minute)	Vdc	Input to case 2,200, input to output 2,200, output to case, 2,200	
Isolation Resistance	MΩ	>100, output to case 500Vdc (25°C, 70%RH)	
Vibration (Mounted on DIN rail)	-	IEC 60068-2-6. 2g / 10 .. 500Hz, 2hour/direction X,Y,Z	
Shock (Mounted on DIN rail)	-	IEC 60068-2-27. 30g / 11ms ±5ms, 2 bumps/direction, 9 bumps total	
Other			
Weight (Typ)	g	500	
Size (WxHxD)	mm	40 x 115 x 116.6	
Size (WxHxD)	Inches	1.57 x 4.53 x 4.59	
Case Material	-	Aluminum	
MTBF - Telcordia SR-332 issue 3*	Hours	1,173,000	
Warranty	yrs	3	

Mechanical Specification

Outline Drawing DDSM



DDSM Block Diagram



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For Additional Information, please visit
https://product.tdk.com/en/power/

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