

20-40A DIN Rail Redundancy Module

<https://product.tdk.com/en/power/drm40>

<https://www.emea.lambda.tdk.com/drm40>



Industrial



Test



The DRM40 series of DIN rail mount redundancy modules are ideal for connecting two 20A, 10V to 30Vdc output power supplies to produce a 20A N+1 redundant configuration. Alternatively, using the load balancing option, two 20A supplies can be paralleled to deliver a 40A output. For capacitive and inductive loads, the DRM40 will support an additional 50% peak load for four seconds. The use of low-loss MOSFET reverse current protection devices reduces the internal voltage drop to just 200mV.

Features

- Compact Size
- Low 200mV Voltage Drop
- Current Balance Indicator Option
- Isolated Alarm Signals

Benefits

- Occupies Less Space on the DIN rail
- Reduced Voltage Drop and Power Loss
- Ensure and Monitor Power Supply Load Sharing
- Simplified Remote Monitoring

Model Selector

Model	Input Voltage Range (V)	# of Inputs	Maximum Current (A)	Peak Current (A) (<4s, 35% Duty Cycle)	Monitoring Signals
DRM40	10-30	2	40	60	Input Good and Current Balance Indicators
DRM40B	10-30	2	40	60	None

Related Products

Type	Part Number(s)	Description
Buffer DIN rail modules	DBM20	20A DIN rail Buffer (hold-up) modules
Low power DIN rail power supplies	DRL10, 30, 60, 100	10 to 100W AC-DC DIN rail power supplies (Class II, No AC Ground required)
Low power DIN rail power supplies	DRB15, 30, 50, 100	15 to 100W AC-DC DIN rail power supplies (Class I, AC Ground required)
Mid to high power DIN rail power supplies	DRB120, 240, 480	120 to 480W AC-DC DIN rail power supplies
Mid to high power premium DIN rail power supplies	DRF120, 240, 480, 960	120 to 960W AC-DC DIN rail power supplies
DIN rail mount filters	RSMN	3A to 30A 250Vac 2 stage filters with pulse attenuation
DIN rail mount filters	RSEV	6A to 30A 250Vac 2 stage filters
RSEV DIN rail mounting kit	DIN-RSEV	RSEV DIN rail mounting kit

Specifications			
Model		DRM	DRM40B
Input			
Input Voltage range	Vdc	10 - 30	
Number of inputs	-	Two	
Maximum Input Current	A	(Two) 20, total 60 peak	
Peak Input Current	A	(Two) 30 for 4s maximum, 35% duty cycle	
Internal Power Loss (typ)	W	8 at 40A(1)	
Input to Output Voltage Drop	Vdc	0.2 at 40A(1)	
Input Good Indicators	-	Two green LEDs indicating each input is "good"	None
Reverse Polarity Protection	Vdc	40 max	
Immunity	-	See immunity table	
Safety Certifications and Markings	-	IEC/UL/EN62368-1, UL508, CE Mark and UKCA Mark	

Immunity				
Test	Standard	Test Level	Criteria	Notes
ESD	EN61000-4-2	4	A	15kV air, 8kV contact
Radiated Susceptibility	EN61000-4-3	3	A	10V/m
Electrical Fast Transient Burst	EN61000-4-4	3	A	2.4kV, 5kHz
Surge	EN61000-4-5	1-2	A	Signal pin to FG Lvl 1
Conducted Susceptibility	EN61000-4-6	3	A	10Vrms
Magnetic Fields	EN61000-4-8	3	A	10A/m

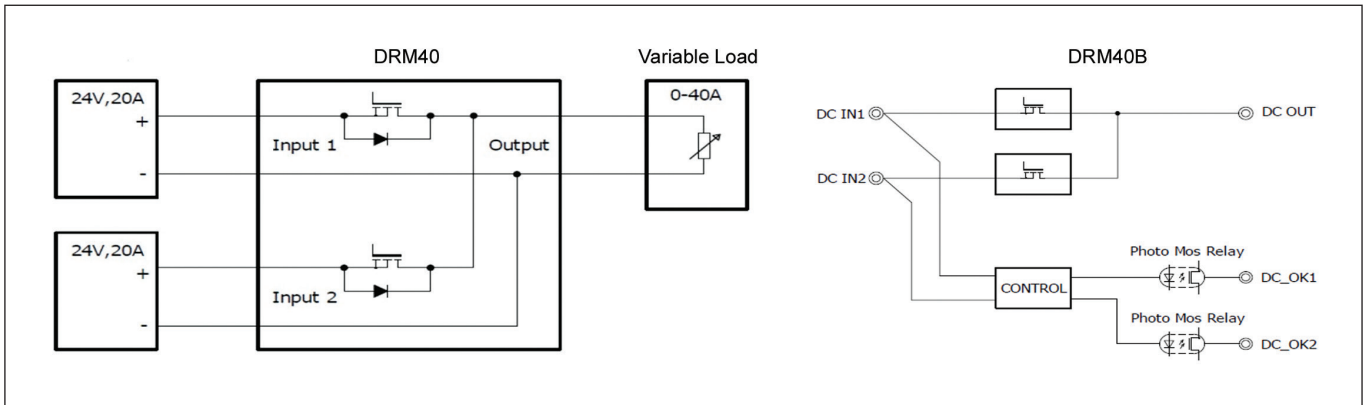
Specifications			
Model		DRM	DRM40B
Output			
Maximum Output Current	A	40	
Peak Output Current	A	60A for 4s maximum, 35% duty cycle	
Overcurrent Protection	-	None	
Overvoltage Protection	-	None	
Parallel Operation	-	Possible, see installation manual	
Series Operation	-	Not possible	
Environmental			
Operating Temperature	°C	-40 to +70 standard mounting orientation	
Storage Temperature	°C	-40 to +85	
Humidity (non condensing)	%RH	5 to 95 (operating and storage)	
Cooling	-	Convection	
Altitude	m	5,000	
Withstand Voltage (For 1 minute)	Vdc	707 (input or output to chassis)	
Isolation Resistance	MΩ	>100 at 25°C, 70%RH & 500VDC (input or output to chassis)	
Vibration (Non Operating)	-	10 - 55Hz (sweep for 1 min) 19.6m/s ² (constant X, Y, Z axis for 1 hour each)	
Shock (In packaging)	-	< 196m/s ² (20G)	
Other			
Weight (Typ)	g	330	
Size (WxHxD)	mm	35 x 124 x 125	
Size (WxHxD)	Inches	1.18 x 4.87 x 4.91	
Warranty	yrs	5	

Notes

* /EF model has /ADJ included

Other options are available, please contact sales

Block Diagrams DRM40 Series

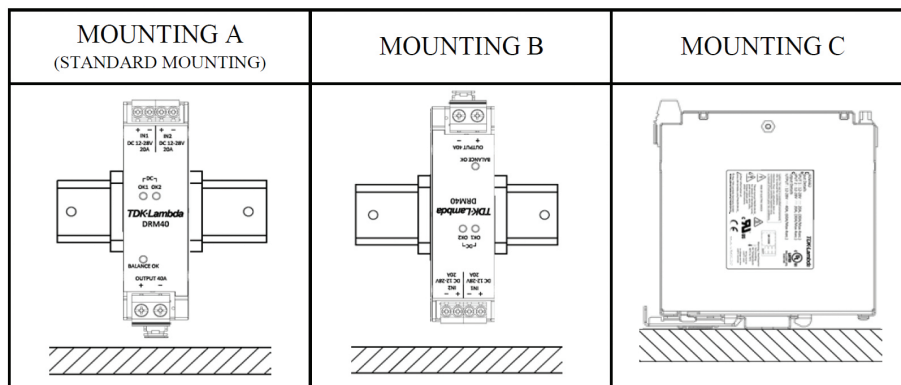
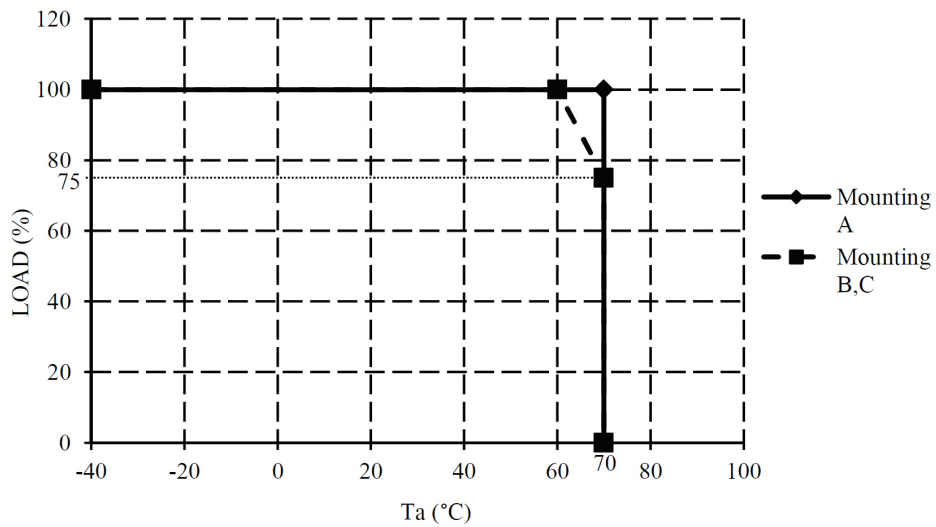


Derating Curve (DRM40 and DRM 40B)

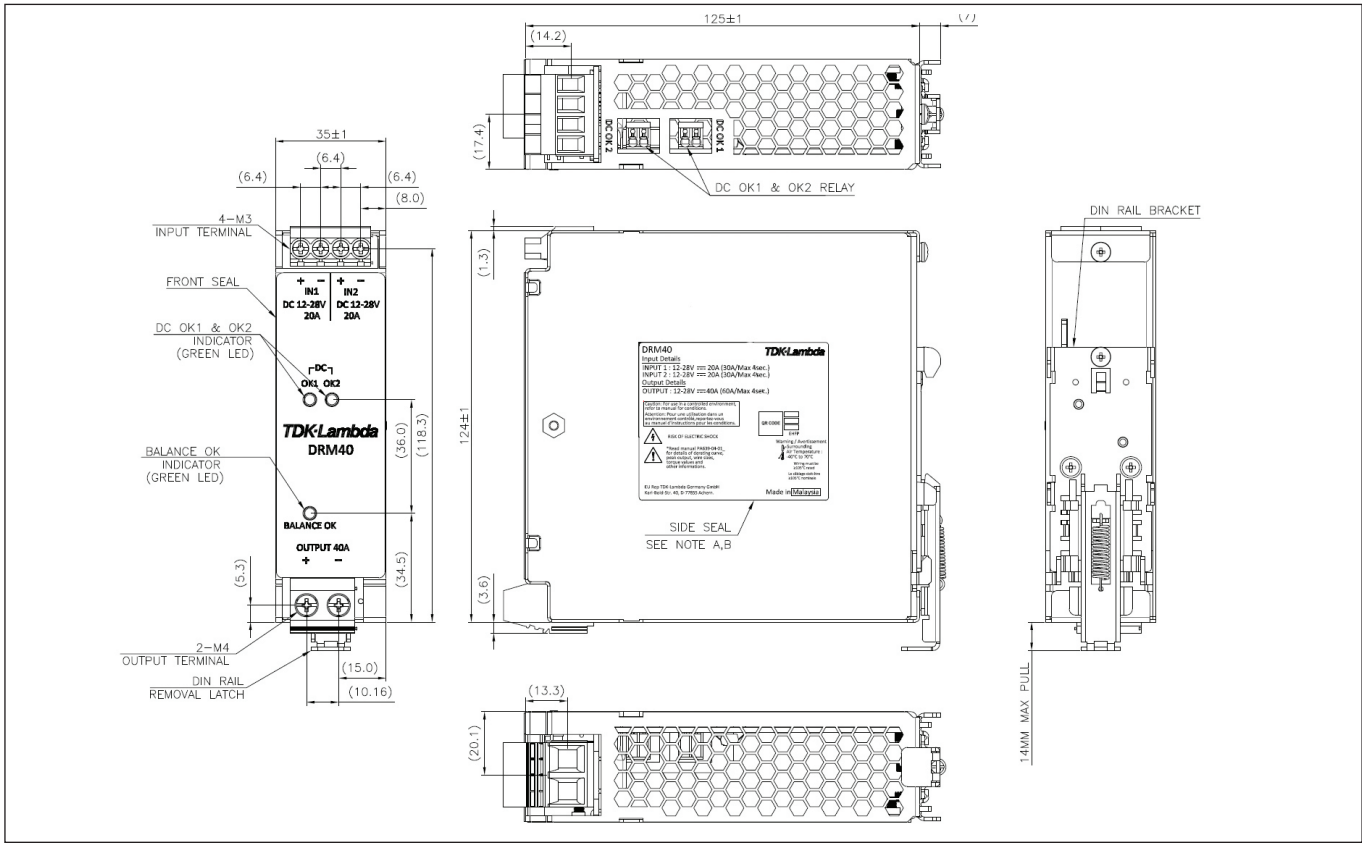
***COOLING : CONVECTION COOLING**

Ta (°C)	LOAD (%)		
	MOUNTING A (STANDARD MOUNTING)	MOUNTING B	MOUNTING C
-40 ~ +60	100	100	100
70	100	75	75

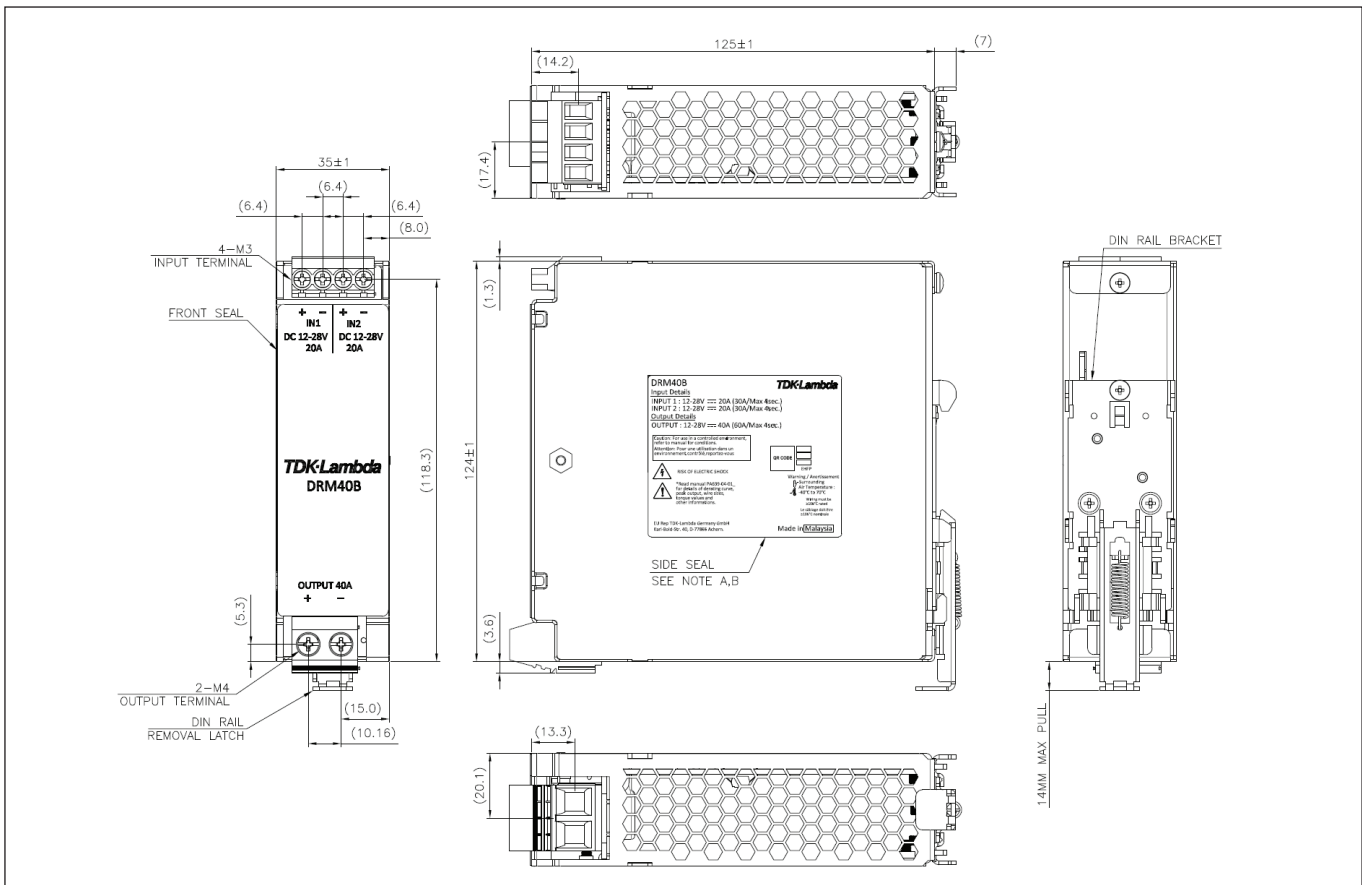
OUTPUT DERATING CURVE



Outline Drawing DRM40 Series



Outline Drawing DRM40B Series





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