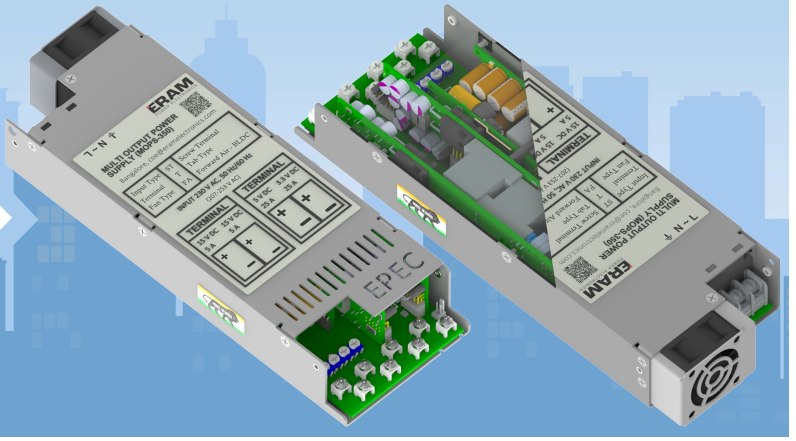
Multi Output Power Supplies

Series: MOPS-XXX-XX



Eram Power Electronics offers reliable and efficient Multi output power supply modules that can convert single phase AC wide varying window voltage to a constant and stiff positive DC output voltages for sophisticated applications. The output DC voltage is galvanically isolated from its AC/DC input capable of operating for a wide temperature range, features short circuit protections, over voltage/under voltage protections which enable the user for reliable and hassle free operation.

Multi output power supply modules offers low output ripple DC rails with increased load transient performances enabled for refined and critical applications. Eram's Multi output power supply modules are handy, highly efficient, rugged power supplies caters all the low and medium DC voltage demands from 3.3 volt to 48-Volt DC.

An FRU (Field Replacement Unit) based design drops internal wire harness and brings highest reliability at a wide operating temperature range. Eram power electronics not only supplies standard AC-DC brick converters but also offers Plug-in Ready to Use AC/DC-DC tailor-fit converter modules on request.

PRODUCT SPECIFICATION	VALUES / UNITS	REMARKS
INPUT PARAMETERS		
Input Configuration-1	Single phase AC, Three wire/DC input	Phase, Neutral, Earth
Input Operating Voltage Window	230 V ±10% V AC/ 200-430 V DC	Wide input range
Inrush Current	< 30 A	
Input Operating Frequency Window	50/60 Hz (± 5 Hz)	400 Hz input optional
OUTPUT PARAMETERS		
Output voltage - Channel 1 (V DC)	15 V / 1 A	Fixed output Voltage / Customized options
Output voltage - Channel 2 (V DC)	15 V / 1 A	Fixed output Voltage / Customized options
Output voltage - Channel 3 (V DC)	15 V / 1 A	Fixed output Voltage / Customized options
Efficiency (typical) at rated Load	90%	@Nominal input voltage, @ Rated full load
Number of Outputs:	3 Outputs	
Topology	Active high frequency PWM	SiC & GaN based

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Multi output Power supplies (MOPS)

PRODUCT SPECIFICATION	VALUES / UNITS	REMARKS
FEATURES		
Turn on time	1.5s Max	
Rise Time	< 50 ms	
Hold Up	16 ms min	
Output DC Voltage Ripple	< 1% or 50 mV	With respect to the rated Output Voltage
Voltage Accuracy	< 1%	
Temperature Coefficient	<0.02% of rated voltage per °C	
Load Regulation	< 1%	With respect to the rated Output Voltage
Line Regulation	< 0.1%	
Cross Regulation	< 0.1%	
Transient Response	< 4% of set voltage for 50 % load change	
Recovery	500 µs for recovery to 1% of set voltage	
Isolation between AC input & DC input	Galvanic	All O/P are galvanically isolated themselves & isolated from its I/P
PROTECTION		
Input Over Voltage Protection	Yes	>300 V AC Input
Input Under Voltage Protection	Yes	<100 V AC Input
Output Over Current Protection	Yes	110-150% of Module Current
Power Limit (Duals)	Yes	110-150% of Max Power
Over Temperature Protection	Yes	
Output ON / OFF	Yes	Optional Switch
Output Short Circuit	Yes	Built in active protection
ENVIRONMENTAL CONDITION		
Operating Temperature	0°C to 50°C	100% Load capacity for the entire range
Storage Temperature	0°C to 50°C	
Relative Humidity	0-95% Non-Condensing	
Cooling	Forced Cooling	
MECHANICAL		
Dimension L*W*H (in mm)	275*95*40	
Weight (in kg)	~ 1.00 kg	Closed Frame
Open Frame / Enclosed	Semi Enclosed	
Mounting Style	Chassis	
Material Type	Aluminium with anodizing	
Installation	Indoor	

Applications:


Aerospace



Medical


Industries



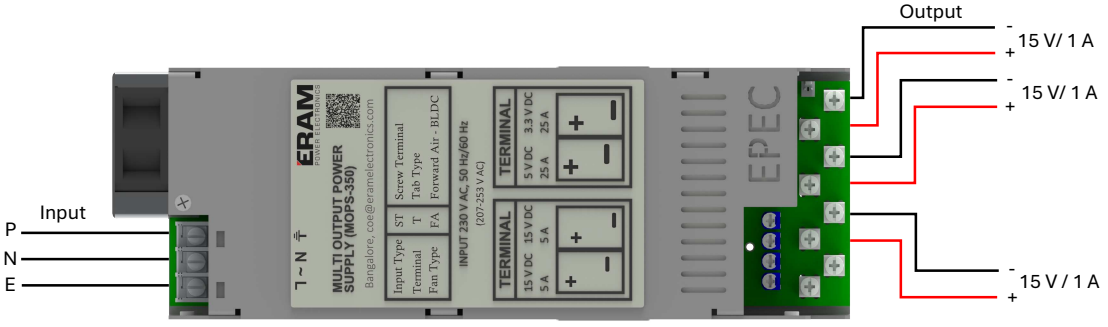
Laboratories

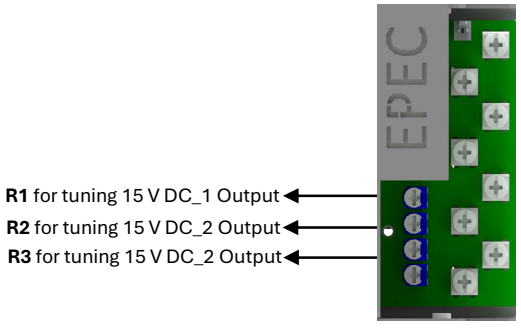

Telecom Towers


Transportations

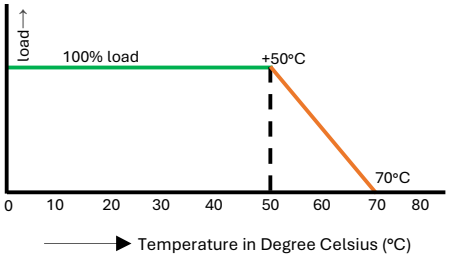
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Configuration

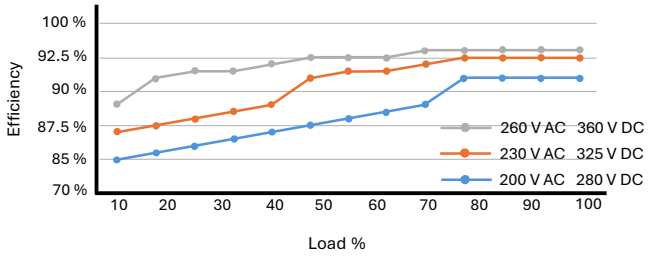




Capability matrix: Ambient Temperature Vs Power output



Efficiency Vs Input AC voltage



*Customized current rating (0-50 A) is available with chassis with a forced cooling option

*Active output short circuit protection is built in to safeguard the power supply from the bolted hazardous output short circuit.

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MOPS Variants									
Series Name	V1 (VDC)	I 1 (A)	P 1 (W)	V2 (VDC)	I 2 (A)	P 2 (W)	V3 (VDC)	I 3 (A)	P 3 (W)
MOPS-DV-045-03	± 15	1	15	± 15	1	15	± 15	1	15
MOPS-DV-144-03	± 48	1	48	± 48	1	48	± 48	1	48
MOPS-DV-020-03	± 3.3	2	6.6	± 3.3	2	6.6	± 3.3	2	6.6
MOPS-DV-030-03	± 5	2	10	± 5	2	10	± 5	2	10
MOPS-DV-072-03	± 12	2	24	± 12	2	24	± 12	2	24
MOPS-DV-090-03	± 15	2	30	± 15	2	30	± 15	2	30
MOPS-DV-180-03	± 24	2.5	60	± 24	2.5	60	± 24	2.5	60
MOPS-DV-108-03	± 12	3	36	± 12	3	36	± 12	3	36
MOPS-DV-135-03	± 15	3	45	± 15	3	45	± 15	3	45
MOPS-DV-216-03	± 24	3	72	± 24	3	72	± 24	3	72
MOPS-DV-225-03	± 15	5	75	± 15	5	75	± 15	5	75

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