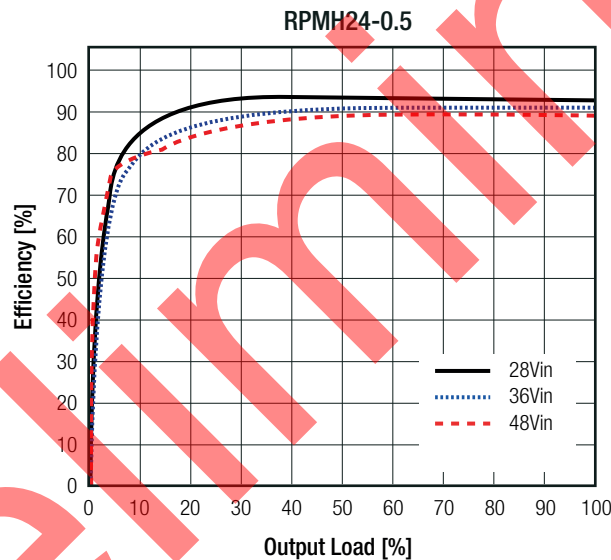
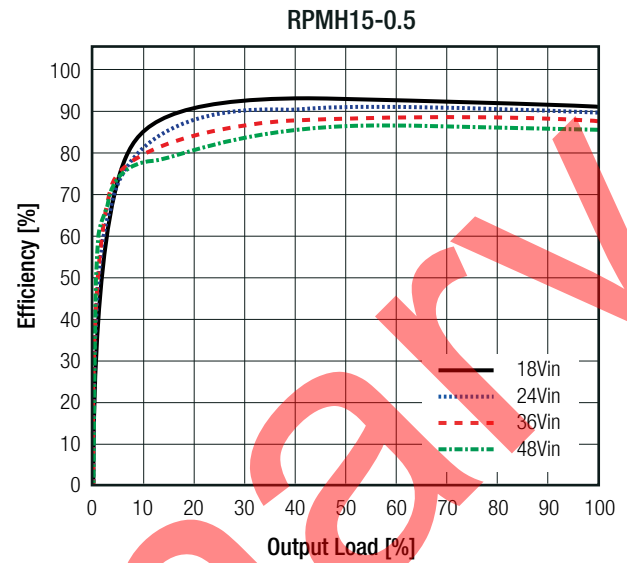
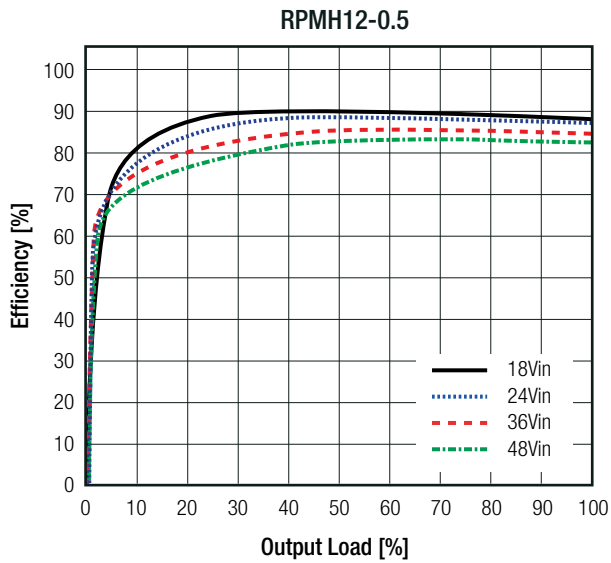
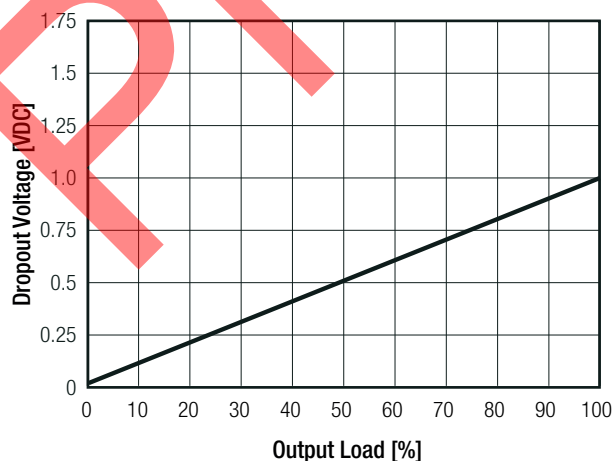


Specifications (@ Ta = 25°C, nom. Vin, full load, with output cap ⁽⁴⁾ after warm-up unless otherwise stated)

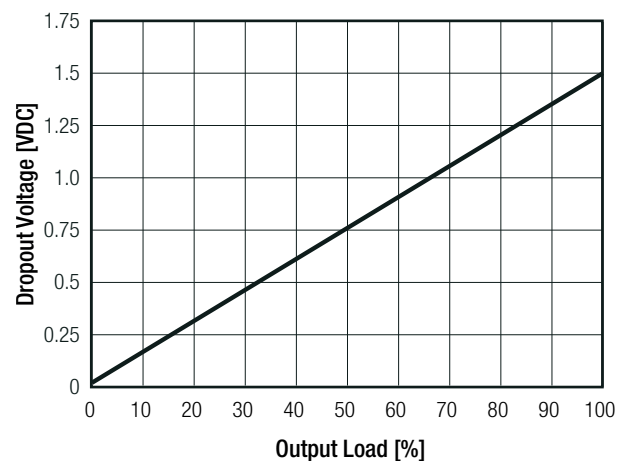


Dropout Voltage vs. Load

RPMH3.3-0.5, RPMH5-0.5



RPMH12-0.5, RPMH15-0.5, RPMH24-0.5



continued on next page

Specifications (@ Ta= 25°C, nom. Vin, full load, with output cap ⁽⁴⁾ after warm-up unless otherwise stated)

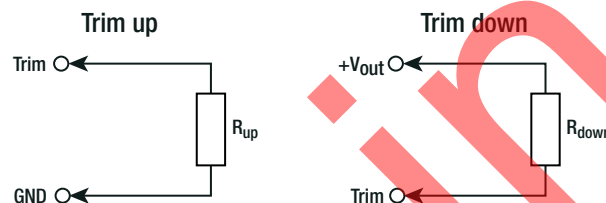
Output Capacitor

The RPMH requires MLCC output capacitors for normal operation (see table).

Output Capacitance	
V _{out} _{nom}	C _{OUT}
3.3VDC, 5.0VDC	--
12VDC	10uF 25V X7R 1206
15VDC	10uF 25V X7R 1206
24VDC	2 x 10uF 50V X7R 1210

OUTPUT VOLTAGE TRIMMING

The RPMH-series offers the feature of trimming the output voltage by using external trim resistors. The values for trim resistors shown in trim tables below are according to standard E96 values; therefore, the specified voltage may slightly vary. Refer to **"Selection Guide"**



V_{out}_{nom} = nominal output voltage [VDC]
V_{out}_{set} = trimmed output voltage [VDC]
V_{ref} = reference voltage [VDC]
R_{up} = trim up resistor [Ω]
R_{down} = trim down resistor [Ω]
R_{Hi}, R_{Lo} = internal resistors [Ω]

V _{out} _{nom}	R _{Hi}	R _{Lo}	V _{ref}
3.3VDC	205kΩ	169kΩ	1.223VDC
5.0VDC	374kΩ	309kΩ	
12VDC	1.22MΩ	1MΩ	
15VDC	1.22MΩ	1MΩ	
24VDC	1.22MΩ	1MΩ	

Calculation:

$$R_{up} = \left[\frac{R_{Hi}}{V_{out_set} - V_{nom}} \right]$$

Practical Example RPMH3.3-0.5, trim up

$$V_{out_set} = 3.63VDC$$

$$R_{up} = \left[\frac{205k}{3.63 - 3.3} \right] = \underline{621k\Omega}$$

R_{up} according to E96 ≈ **619kΩ**

$$R_{down} = \left[\frac{(V_{out_set} - V_{ref}) \times R_{Lo}}{V_{out_nom} - V_{out_set}} \right]$$

Practical Example RPMH3.3-0.5, trim down

$$V_{out_set} = 2.64VDC$$

$$R_{down} = \left[\frac{(2.64 - 1.223) \times 169k}{3.3 - 2.64} \right] = \underline{363k\Omega}$$

R_{down} according to E96 ≈ **365kΩ**

RPMH3.3-0.5

Trim up

V _{out} _{set} =	3.4	3.5	3.63	[VDC]
R _{up} (E96) ≈	2M05	1M02	619k	[Ω]

Trim down

V _{out} _{set} =	3.1	3	2.8	2.64	[VDC]
R _{down} (E96) ≈	1M58	1M	536k	365k	[Ω]

RPMH5.0-0.5

Trim up

V _{out} _{set} =	5.1	5.3	5.5	[VDC]
R _{up} (E96) ≈	3M74	1M24	750k	[Ω]

Trim down

V _{out} _{set} =	4.7	4.5	4.3	4	[VDC]
R _{down} (E96) ≈	3M57	2M	1M33	845k	[Ω]

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