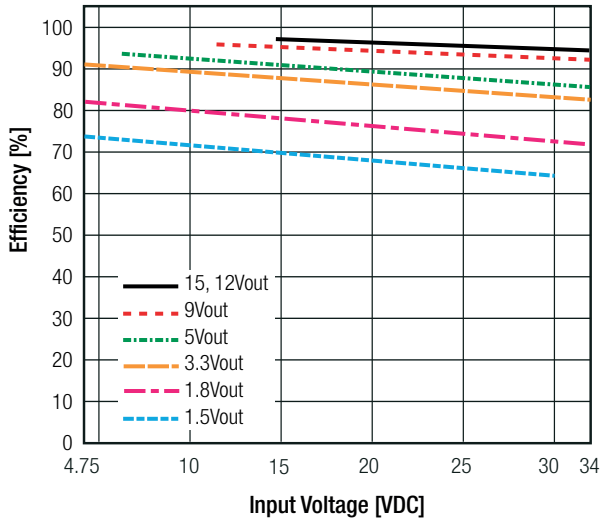
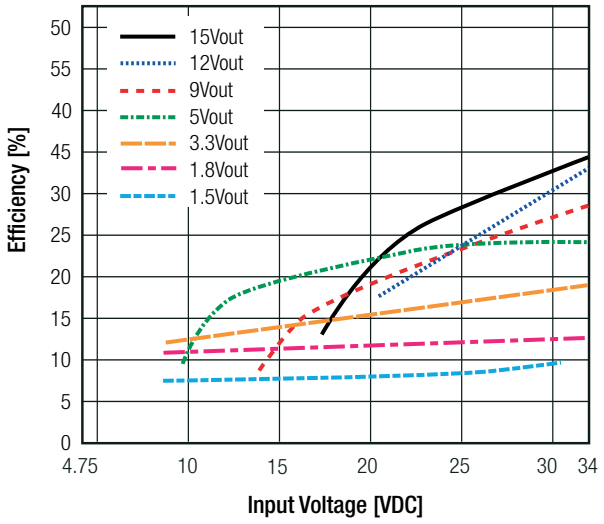
Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

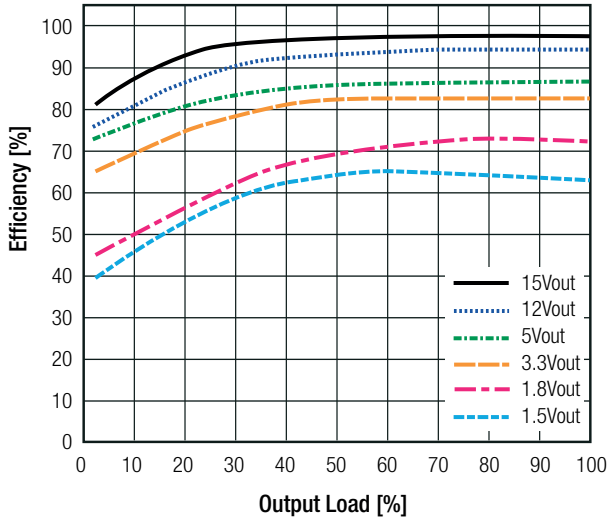
Efficiency vs. Vin (full load)



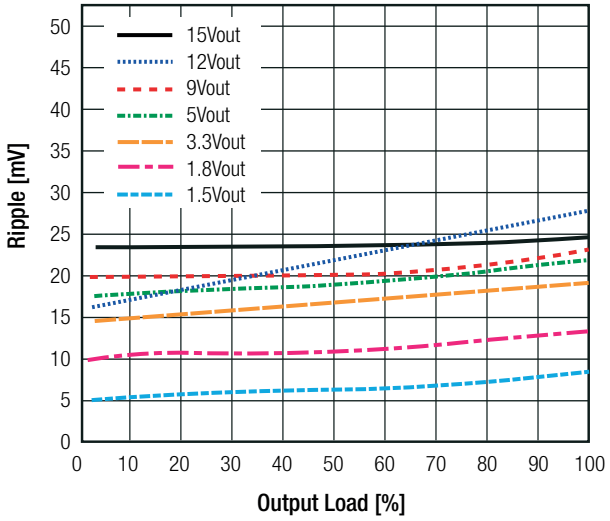
Ripple vs. Vin (full load)



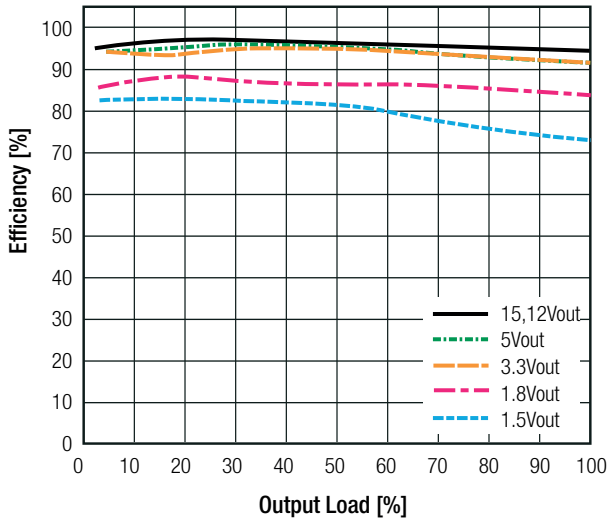
Efficiency vs. Load (max. Vin)



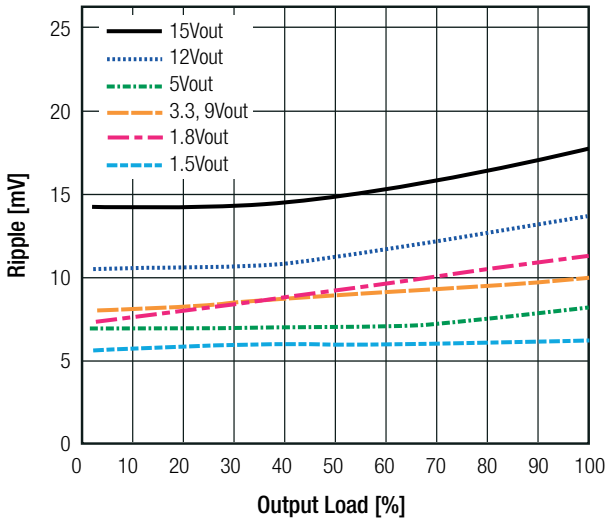
Ripple vs. Load (max. Vin)



Efficiency vs. Load (min. Vin)



Ripple vs. Load (min. Vin)



R-78AA-0.5 Series

Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

REGULATIONS

Parameter	Condition		Value
Output Accuracy	full load		±2.0% typ. / ±3.0% max.
Line Regulation	low line to high line at full load	1.5 VDC tp 6.5VDC 9VDC to 15VDC	±0.2% typ. / ±0.4% max. ±0.1% typ. / ±0.2% max.
Load Regulation	10% to 100% load	1.5 VDC tp 6.5VDC 9VDC to 15VDC	±0.7% typ. / ±1.0% max. ±0.25% typ. / ±0.4% max.
Transient Response	with a 100µF output capacitor	100% <-> 50% load 100% <-> 10% load	±85mV typ. / ±100mV max. ±100mV typ.

PROTECTIONS

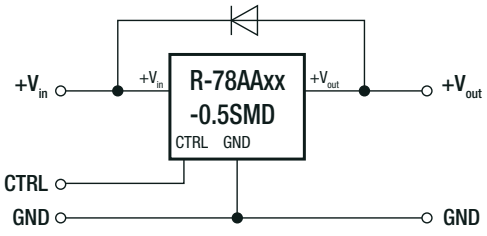
Parameter	Condition	Value
Short Circuit Protection (SCP)		continuous, automatic recovery
Short Circuit Input Current	nom. Vin= 24VDC	60mA typ. / 100mA max.

Optional Diode Protection Circuit

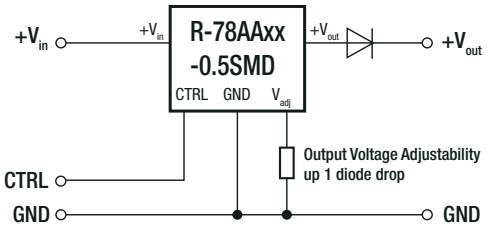
Add a blocking diode to Vout if current can flow backwards into the output, as this can damage the converter when it is powered down.

The diode can either be fitted across the device if the source is low impedance or fitted in series with the output (recommended).

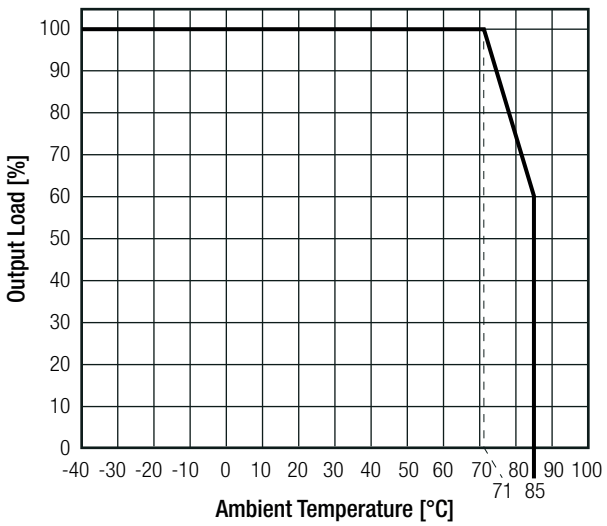
Optional Protection 1:



Optional Protection 2:



ENVIRONMENTAL

Parameter	Condition		Value
Operating Temperature Range	with derating (see graph)		-40°C to +85°C
Maximum Case Temperature			+100°C
Temperature Coefficient			±0.015%/°C
Thermal Impedance	0.1m/s, horizontal		70°C/W
Operating Altitude			2000m
Operating Humidity	non-condensing		5% - 95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C + 71°C	21098 - 29253 x 10^3 hours 4214 - 7365 x 10^3 hours

Derating Graph