



INDUSTRIAL & AUTOMOTIVE DC/DC Converters

DIW2 - DIW5 - DAW2 - DAW5 - DLIW2 specification
 size - 50,8mm x 10,8mm
 PCB - mount / potted with UL / CSA approved material
 Metal shielded - 5 sides

All datas given at zero/full load at 23°C ambient or room temperature

INPUT SPECIFICATION

DIW2, DAW2 wide input range 1:2 4,5V - 9V / 8V - 18V / 34V - 75V

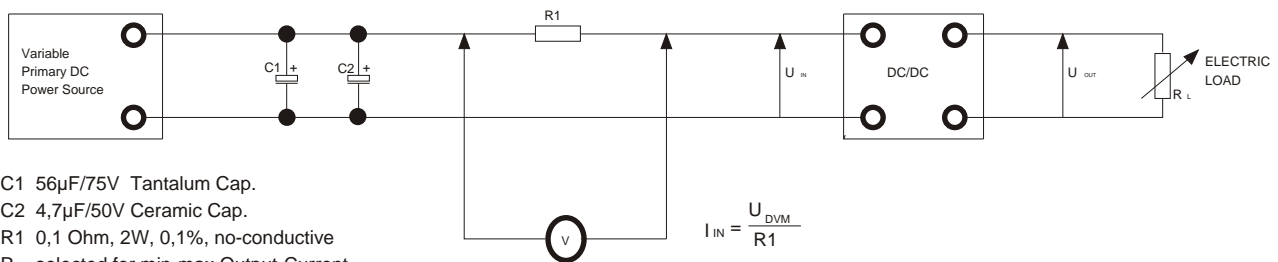
DIW5, DAW5 wide input range 1:5 8V - 40V / 16V - 80V

Input pi-filtered

OUTPUT SPECIFICATION

Switching frequency	>150kHz
Isolation primary / secondary	>1000V DC min. / optional 3kV AC rms
Isolation resistance	>10 GOhm
Isolation capacitance	<12nF; varies from series to series
Ambient temperature	-25°C to +71°C no derating
	or -55°C to +85°C no derating
Operating temperature	>100°C
Storage temperature	-55°C to 125°C

TEST CIRCUITRY & DEFINITIONS



C1 56µF/75V Tantalum Cap.
 C2 4,7µF/50V Ceramic Cap.
 R1 0,1 Ohm, 2W, 0,1%, no-conductive
 R_L selected for min-max Output-Current

LINE REGULATION: The change in output of a regulated converter in percent as the input voltage is varied from nominal to high line and from nominal to low line. Output load & ambient temperature are held constant.

$$\text{Line regulation} = \frac{U_{\text{out max}} - U_{\text{out min}}}{U_{\text{in max}} - U_{\text{in min}}} \times 100$$

EFFICIENCY: Ratio of the output power to the input power in percent at nominal & output levels, at full load conditions.

$$\text{Efficiency} = \frac{U_{\text{out}} \times I_{\text{out}}}{U_{\text{in}} \times I_{\text{in}}} \times 100$$

INPUT REFLECTED RIPPLE: Tested with scope 20MHz bandwidth. Testprobe RG174 COAX, 50 Ohm, AC-coupled, Multiply by 2 to obtain p-p value, Measured at input-side.

OUTPUT RIPPLE & NOISE: Same test equipment as before all noise measurements 20 Hz - 20MHz bandwidth. Measured at output-side.

LOAD REGULATION: The max. deviation of the output voltage in percent, as the load is changed from minimum to maximum rated load, while input voltage is nominal and ambient temperature is constant, Variation output current from min. - max.

$$\text{Load regulation} = \frac{U_{\text{out max}} - U_{\text{out min}}}{U_{\text{out nom.}}} \times 100$$