

DIMONSION CD-Series

10. FUNCTIONAL DIAGRAM

Fig. 10-1 Functional diagram

Poutput Voltage Regulator

Power Converter

Input Filter

Chassis
Ground

Output

Protection

Input Filter

OverTemperature
Protection

OverVoltage
Regulator

Power
Converter

Output
OverVoltage
Protection

OverVoltage
Protection

Output
OverVoltage
Protection

11. RELIABILITY

		Input: 48Vdc	
Lifetime expectancy	min.	169 000h	40°C, 24V, 2.5A
	min.	64 000h	40°C, 24V, 5A
	min.	39 000h	40°C, 24V, 6A
	min.	181 000h	25°C, 24V, 5A
MTBF SN 29500, IEC 61709		951 000h	40°C, 24V, 5A
		1 560 000h	25°C, 24V, 5A
MTBF MIL HDBK 217F		559 000h	40°C, 24V, 5A, Ground Benign GB40
		749 000h	25°C, 24V, 5A, Ground Benign GB25

The **Lifetime expectancy** shown in the table indicates the operating hours (service life) and is determined by the lifetime expectancy of the built-in electrolytic capacitors. Lifetime expectancy is specified in operational hours. Lifetime expectancy is calculated according to the capacitor's manufacturer specification. The prediction model allows a calculation of up to 15 years from date of shipment.

MTBF stands for **M**ean **T**ime **B**etween **F**ailure, which is calculated according to statistical device failures, and indicates reliability of a device. It is the statistical representation of the likelihood of a unit to fail and does not necessarily represent the life of a product.