Querom
Power Electronics

DDH3009-24 (short version)

High-voltage DC/DC converter

Description

This model of the Querom high-voltage DC/DC converter platform has a wealth of features that enable it to be integrated into existing systems. Control via CAN, Digital-IO, RS-232 or uncontrolled operation based on a default parameter set that you can edit is possible.

The structure of the device offers the possibility of continued operation of all measuring and control functions even the input voltage fails.

Insolation of input and output extends the range of applications. The isolated control side prevents earth loops and ensures an uncomplicated connection to the control system.

The robust thermal design allows operation at high ambient and base plate temperatures and simplifies the cooling solution. The optional electrolytic capacitor-free design extends the service life at high temperatures.

- Output current up to 125A
- Remote control (CAN, RS232, Digital-IO)
- Overload protection
- Short circuit detection (Port B)
- High efficiency
- Low standby power consumption
- HV Interlock Loop (HVIL)
- 6 Digital Input (1 dedicated enable)
- 4 Digital Output (open drain)

Specification

The following parameters are valid for operation at 25°C and under nominal conditions, unless specifically stated otherwise.

Port A

Voltage Range	500 … 900 VDC
Current Limit	0 … 7A
Withstand Voltage to Case	4250 VDC
Leakage Current	2mA

Communication

CAN2.0A und B	Compatible
-> Bandwidth	max. 1 Mbit/s
RS232	Compatible
-> Bandwidth	9.6 kBit/s
Digital-IO	Configurable

Port B

Voltage Setpoint	20 … 30 V
Nominal Current	0 … 83 A
Boost Current	max. 125 A
Nominal Power	2000 W
Boost Power	max. 3000 W
Output Efficiency	typ. 95 %
Withstand Voltage to Case	200 VDC

Monitoring

Sense Resolution	12 Bit
Sense Bandwidth	100 Hz

Environment

Ambient Temp.	-25 … 100 °C
Baseplate Temp.	-25 … 90 °C
Humidity	20 … 85 %

Mechanical

Width	410 mm
Height	95 mm
Depth	240 mm
Weight	8 kg

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