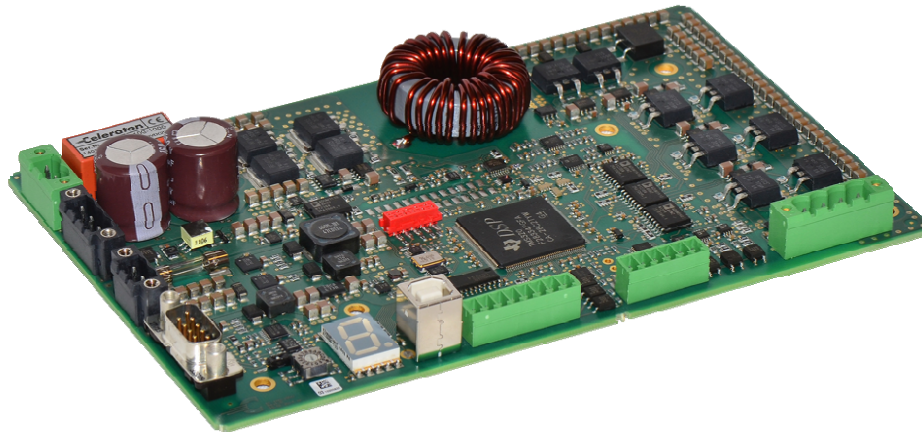


CC-100-1000



Summary

- Converter for driving permanent-magnet synchronous motors (PMSM) and brushless dc motors (BLDC)
- Sensorless speed control from 5,000 rpm up to 500,000 rpm
- Maximum output power: 1,000 W
- Separate supply for power and digital part
- No output filter required
- User definable setup for different motor parameters
- Torque and speed control
- Highest possible efficiency
- Integrated break chopper up to 2 W
- Optional external break chopper up to 420 W
- Parallel connection of several converters to one dc-bus possible
- User-friendly PC control software (CelerotonPilot)

| Specifications | |
|--|--|
| Input voltage power part U_{in} (dc) | 24 – 100 V |
| Input voltage digital part U_{in} (dc) | 24 V |
| Maximum output power (with respective cooling) | 1,000 W |
| Output voltage (peak value phase-phase) | 0 – 0.93 U_{in} |
| Maximum phase current (PAM-operation) | 8.7 Arms / 12.3 A _{peak} ¹ |
| Maximum frequency / speed (PAM-operation) | 8.3 kHz / 500,000 rpm |
| Operating range motor | 4-Quadrant |
| Communication interface | USB |
| Communication interfaces (switchable) | RS232, CAN |
| PC control software | CelerotonPilot |
| Weight | 0.28 kg |
| Dimensions (L x W x H) | 195 x 125 x 24 mm |
| Operating temperature | 0 – 40 °C |

¹Fundamental of the PAM-block current

Interfaces

Connector X8 – in-/output (6 Pin)

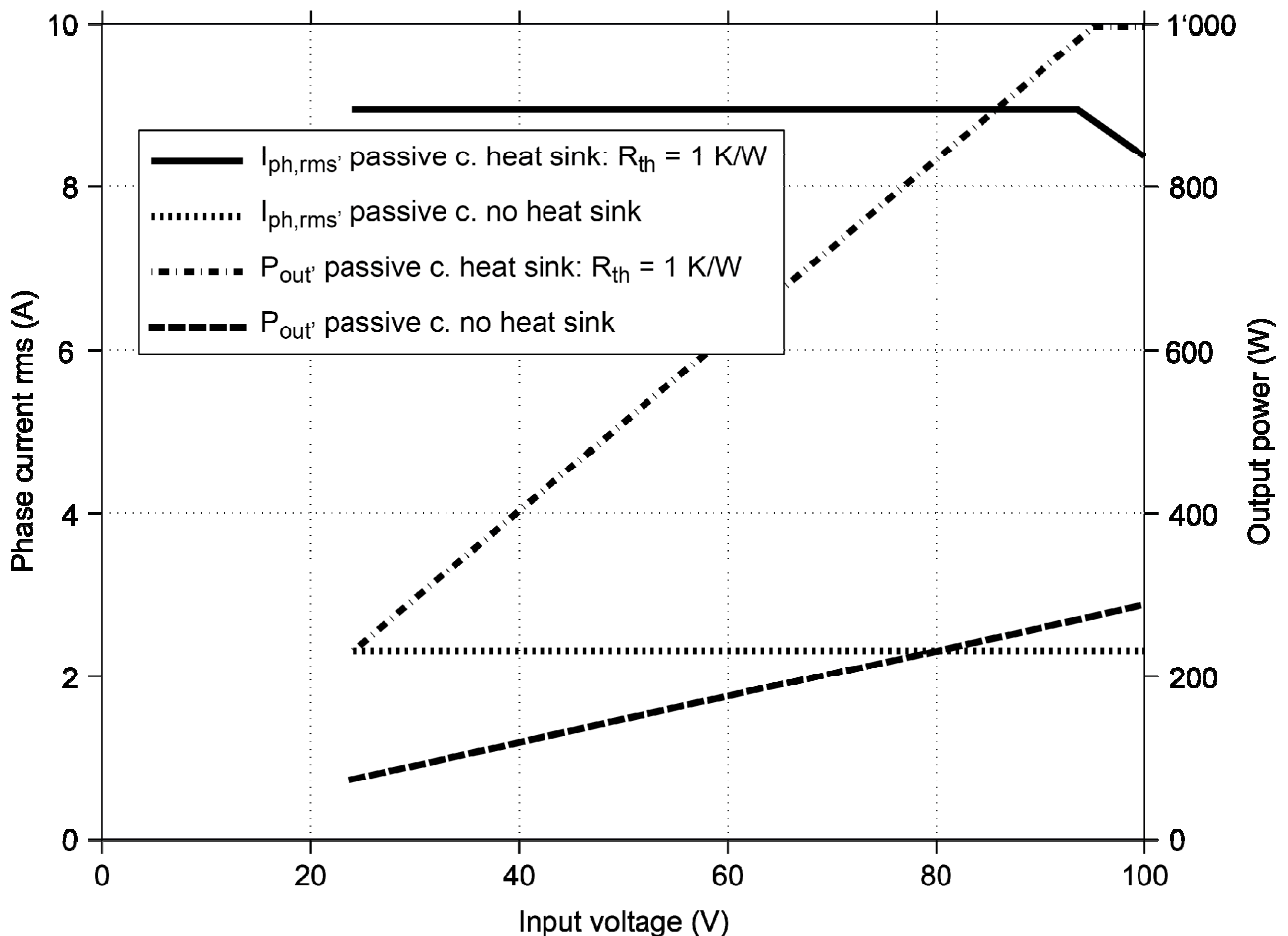
| | |
|-----------------------------------|--------------|
| 1 x Analog input | 0 – 10 V |
| 1 x Analog output | 0 – 10 V |
| 1 x Temperature measurement input | PTC |
| 2 x GND | |
| 1 x Auxiliary power supply | 10 V, 100 mA |

Connector X7 – in-/output (8 Pin)

| | | |
|---------------------|---|------------|
| 1 x COM | Common rail for digital outputs | |
| 3 x Digital outputs | 0 – 24 V (Relais, normally open contacts) | |
| 2 x GND | | |
| 2 x Digital inputs | 0 – 4 V | Low level |
| | 10 – 24 V | High level |

Power Limits

Output current and output power PAM mode



Operating with full output power of 1,000 W requires cooling with heat sink with thermal resistance $R_{th} \leq 1$ K/W. Without heat sink a maximum output current of 2.3 Arms and maximum output power of 280 W is available.

Contact

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