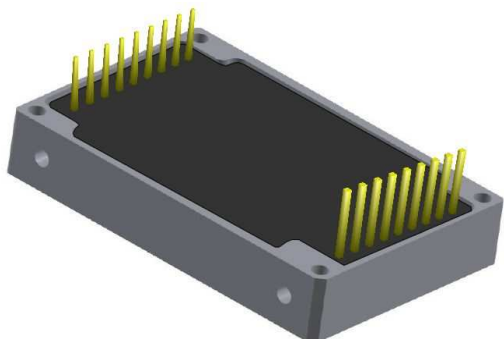




Hi-Rel DC/DC CONVERTER MGDS-200 : 200W Wide Input Voltage Range

Designed for military and industrial applications
Optimized for up to 1200W by 200W step architecture
3D high density thermal and BUS management
Highly extended functionality and versatility



- Wide DC input range
- High efficiency planar forward active clamp with SR
- Input undervoltage lockout
- Input inhibition function
- 30 ms full soft-start
- Proprietary high bandwidth galvanic feed-back loop (no optocoupler)
- Output voltage remote sens
- 0V to 1,1 x V_{Onom} output trim range
- Output regulation no load to full load
- Output overvoltage fast protection
- Permanent output current limitation with fold back
- Auto restart short circuit and over-temperature protection
- Bus current monitor for multi-module active power load-sharing
- Up to 1,2 KW multi-module load-sharing capability
- Output current monitoring and Controlled high current source capability (battery charger applications)
- Proprietary automatic SR inhibition for redundancy and light-load safety power sharing without external components.
- Light-load and Standby low power consumption, green mode compliant (TBC)
- Integrated input and output LC filter
- Damping Input Filter pin available
- Synchronisation I/O pin for multi-module architectures
- Available front end EMI filter with integrated spread spectrum and quadrature synchro generator
- Auxiliary 5V low power bias pin available on primary side
- Three faces thermal management and flexible axial or radial connectique for planar or vertical high power integration
- 1KW on 7 inch² 45 cm² area x 48 mm height
or 26 inch² 170 cm² area x 12,7 mm height

Input specification

Nominal input voltage : 22V 28V 72V
Reflected ripple current : 10% I_{nom}

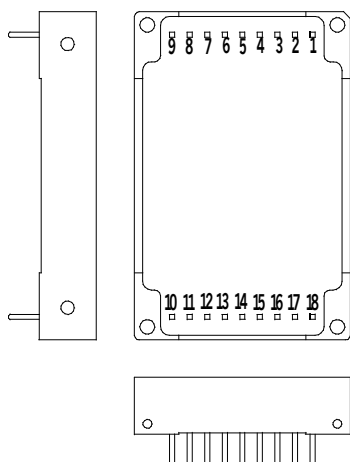
Output specification

Set point accuracy : ± 2%
Line regulation : ± 1%
Load regulation : ± 1%
Output ripple voltage : 1% (100 mV_{pp} for 5V and 3,3V)
Typical efficiency : 88%

Dimensions

Case :
73,6 mm x 48,5 mm x 12,8 mm

Pin out and topology :



- 1 - Sync
- 2 - On-Off
- 3 - 5V
- 4 - VIF
- 5 - GIA
- 6 - GI
- 7 - GI
- 8 - VI
- 9 - VI
- 10 - VO
- 11 - VO
- 12 - GO
- 13 - GO
- 14 - Non Connect
- 15 - Share
- 16 - S+
- 17 - Trim
- 18 - S-

Input voltage range	Nominal output voltage	Nominal output current	Output voltage trim range
H : 12V to 45V (9V-60V)	3.3V	40A	0V to 4V
	5.0V	40A	0V to 6V
O : 16V to 80V (14V-100V)	12V	20A	0V to 13.2V
	15V	15A	0V to 16.5V
Q : 36V to 140V (33V-180V)	26V	8A	0V to 28.6V

General specifications

Insulation voltage primary / secondary : 1500 VDC
Insulation voltage case / primary & secondary : 1500 VDC
Switching frequency : 260 KHz fixed
Synchronisation range : 260 KHz to 330 KHz
Weight : 100 grams