

DC 2000

Modular switch-mode DC/DC converter
designed for industrial applications

Output rating from a single converter:
65 A (at 26 VDC)



Compact in 19" technology

DC 2000 is a DC/DC-Converter converting 220 VDC to 26 VDC with an output current of 65A.

It is a pre-wired unit supplied ready for installation. The connections are accessible from the front panel. The controls and display elements are installed at the front of the unit. Due to its high efficiency, it is designed as a compact 19" plug-in module of 4 height units. It is fully equipped for installation in sub-racks to DIN 41494.

Typical applications

For all industrial applications

- Power generation
- Nuclear power plant
- Oil & Gas
- Petrochemical and chemical
- Transportation and signalling

OPERATION

Supplied by secure 220 volt (high operating reliability), DC 2000 converts input voltage with transistors an internal AC voltage of 100 kHz. With the assistance of transformers, the potential separation and the voltage adjustment take place at the secondary side. The high frequency AC voltage is then rectified by means of rapid-acting diodes. An output filter is installed to reduce the voltage ripple. The output voltage and current are controlled by pulse width modulation of the transistor switch on the primary side.

- In the event of a short circuit supplies the equivalent of the **double** rated current for 1.0 seconds
- Low voltage ripple

BENEFITS

High efficiency provides secured DC power in combination with a parallel battery supply for all types of DC current sources including constant voltage.

- Natural air cooling
- Robust technology
- Compact design and low weight
- Low mounting depth
- High power density
- Resistant to sustained short circuit
- Excellent dynamic response

Specifications

TYPE		220 V/25 V / 45 A
Part Number	GZ20 G26/65 Wtg-C0	
E-Number	37204601	
INPUT		
Nominal input voltage	220 VDC \pm 30 % - 15 %	
Current consumption	8.7 ADC	
Inrush current	\approx rated input current	
Required mains fuse		
OUTPUT		
Output voltage	26.0 VDC \pm 1 %	
Setting range	21 - 26 VDC	
Output current	65 ADC \pm 2 %	
Setting range	45 - 65 ADC	
Efficiency, total (%)	88	
Voltage ripple	\leq 10 mV pp	
Interference voltage to CCIT T	\leq 1 mV	
Dynamic response	\approx 5 % for sudden changes in load between 10 % - 90 % - 10 % rated output current (Compensation time $t < 1$ ms)	
Short-circuit response	Resistant to sustained short circuit, 2 x rated output current for 7.0 s, thereafter 1x rated output current	
Parallel operation	Number unlimited, load sharing approx. 10 %	
Characteristic line	IU Characteristic to DIN 41772/DIN 41773	
MONITORING AND INDICATION		
Mains-side monitoring systems	Over-/under-voltage with switch-off, self-acknowledging	
Output-side monitoring systems	Over-temperature warning and switch-off, self-holding	
- With indication of LED	DC under-voltage with switch-off, self-holding DC over-voltage with switch-off and self-holding	
Indicators	LED operation; Internal/external set value by LED UA and IA via analogue measuring instruments	
External Functions	Central fault signal via potential-free relay contact; (ON/OFF via) external potential-free contact; external sensor load for output voltage (I _{sc}); External setting 0 to 4 VDC for UA or IA with LED indication	
MECHANICAL		
Design	77° module for installation in subframe to DIN 41606	
Ingress protection	IP 20	
Mechanical strength and vibration resistance	EN 50178	
Equipment color	RAL 7035 (front panel)	
Dimensions W x H x D (mm)	483 x 177 x 206 (77° x 4 HUB)	
Weight kg	11.8	
DC output bolt-terminal	M8	
Earth bolt-terminal	M6	
Mains connection	Angle plug type GDM2011, supplied with unit	
Signal interface	Plug type MCVW 15 / 14 - ST - 380, supplied with unit	
ENVIRONMENTAL		
Type of cooling	Natural air cooling	
Operating temperature range	- 0 °C to 45 °C	
Storage temperature range	- 30 °C to 70 °C	
Environment conditions	EN 60721 part 3-3 class 3K3/S2V3B1/3C2/3S2/3M2	
Installation height	Up to 1,000 m above sea level, at nominal load	
STANDARDS		
Interference emission	EN 61000-6-4	
Interference resistance	EN 61000-6-2	
Low voltage function with safe disconnection	EN 61000-6-2	
Approvals	CE	
Certification	ISO 9001	

Authorized distributor in Slovakia:

Rhea elektro s.r.o.
Elektrárenská 1/ 12440, 831 04 Bratislava
Tel.: +421 2 49101914, -18
E-mail: info@rhea-elektro.sk
www.rhea-elektro.sk

AEG

POWER
SOLUTIONS