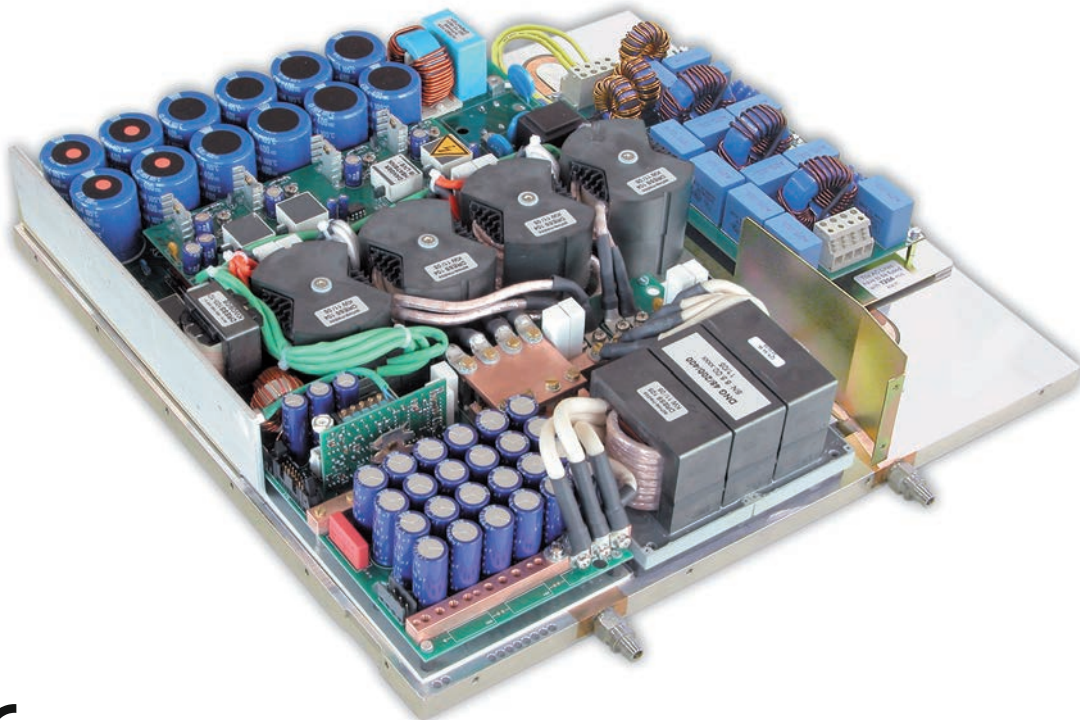


DNG-Series

Switched Mode Power Supply
for RF and Plasma Applications



Picture shows DNG on cold plate (option)

- **Input voltage range:**
180 VAC ~ 220 VAC, 3 Ph 47 ~ 63 Hz
360 VAC ~ 440 VAC, 3 Ph 47 ~ 63 Hz
380 VAC ~ 528 VAC, 3 Ph 47 ~ 63 Hz
- **Output:**
50 VDC, 240 ADC max., 12 kW max.
- **Isolation Voltage I/O 3,000 VAC**
- **Optional 3 phase interlock**
- **Continuous short circuit protection**
- **Customized cold plate (water-cooled) as option**
- **2 Auxiliary outputs (15 VDC)**
- **Customizable for your application**

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Technical Data

Input	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Input voltage (47 ~ 63 Hz, 3 ph)	180 VAC ~ 220 VAC	360 VAC ~ 440 VAC	380 VAC ~ 528 VAC
Input current	40 A @ 10 kW	max. 22 A @ 10 kW	25 A @ 12 kW
Input apparent power	5.6 kVA max.	13.7 kVA max.	16 kVA max.
Hold up time	> 10 ms @ 200 VAC & 10 kW	> 10 ms @ 400 VAC & 10 kW	> 8 ms @ 480 VAC & 12 kW
Power factor	0.81 typ.	0.75 typ.	0.75 typ.
Efficiency	> 90 % typ.	> 90 % typ.	> 90 % typ.
Inrush current	< 300 A _{peak} (cold)	< 300 A _{peak} (cold)	< 300 A _{peak} (cold)
Leakage current	< 5 mA max.	< 5 mA max.	< 5 mA max.
Output	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Output voltage	2.5 ~ 50 VDC adjustable by control voltage of 0 ~ 10 V linear		
Output current	200 ADC max.	200 ADC max.	240 ADC max.
Output power	10 kW	10 kW	12 kW
Initial tolerance	50 V ± 1% @ 10 V/E / 50 V ± 1% @ 10 V/I		
Initial tolerance	200 A ± 3% (factory set)	200 A ± 3% (factory set)	240 A ± 3% (factory set)
Voltage accuracy	1 % typ.		
Dynamic Load regulation	1.2 V _{peak} (I = 195 A ~ 10 A)	1.2 V _{peak} (I = 195 A ~ 10 A)	1.2 V _{peak} (I = 220 A ~ 10 A)
Transient time	2 ms max. up to initial tolerance		
Ripple & noise (20 MHz BW)	250 mV max.		
Static Line regulation	± 0.5 % max. (180 VAC ~ 220 VAC)	± 0.5 % max. (360 VAC ~ 440 VAC)	± 0.5 % max. (380 VAC ~ 528 VAC)
Static Load regulation	± 0.5 % max. (I = 10 A ~ 190 A)	± 0.5 % max. (I = 10 A ~ 190 A)	± 0.5 % max. (I = 10 A ~ 220 A)
1st Auxiliary Output	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Output voltage	15 VDC ± 3% standard setting		
Output current	20 ADC min.		
Start current limitation	20 A min.		
Ripple & noise (20 MHz BW)	250 mV max.		
Line regulation	± 0.5 % max. (180 VAC ~ 220 VAC)	± 0.5 % max. (360 VAC ~ 440 VAC)	± 0.5 % max. (384 VAC ~ 524 VAC)
Load regulation	± 2 % max. (2 A ~ 20 A)		
Dyn. load regulation	1.2 V _{peak} (I = 2 A ~ 15 A)		
Transient time	Up to initial tolerance		
2nd Auxiliary Output	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Output voltage	15 VDC ± 3 % standard setting		
Output current	2 ADC min.		
Min. required load on Aux. output 1	1 A		
Ripple & noise (20 MHz BW)	250 mV max.		
Line regulation	± 0.5 % max. (180 VAC ~ 220 VAC)	± 0.5 % max. (360 VAC ~ 440 VAC)	± 0.5 % max. (384 VAC ~ 524 VAC)
Hold up time	min. 400 msec.		
Environmental Specifications	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Operating temperature range (ambient)	0 °C ~ +35 °C (no derating), overtemperature with shutdown or alarm.		
Storage temperature range	-20 °C ~ +50 °C (10 ~ 95 % RH)		
Safety	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Protection class	I		
Protection category	IP00		
Isolation Voltage (I/O)	3,000 VAC (only if output ist not connected to PE)		
Isolation Voltage (I/FG)	2,000 VAC		
EMC	EN61204-3 / EN 61000-4-2,-3,-4,-5,-6 EN61204-3 Kl. A / EN55011 / EN55022 / CISPR 11 / CISPR 22 / FCC 47 CFR 15		
Input filter	Acc. EN55022 Level A		
Short circuit protection	Continuous (U/I characteristic)		
General Specifications	DNG-48/200/200	DNG-48/200/400	DNG-48/240/480
Safety standards	CE, EN60950, UL60950		
Dimensions	395 x 400 x 67 mm		
Weight	10.4 kg		
Cooling	Water-cooled cold plate (customizable option)		
Heatsink plate temperature	55 °C max. @ 10 kW DC power		
Fuse (as device protection use external 3-phase combined circuit breaker with characteristic C)	3 x 40 A / 400 VAC	3 x 25 A / 400 VAC	3 x 25 A / 480 VAC

All specifications typical at nominal line, full load and 25 °C, unless otherwise noted. Dynamic measurement with nominal output voltage of 50 VDC. All data specified is believed to be correct at time of publication. However, we accept no responsibility for printing errors or inaccuracies. [Subject to change without notice.](#)

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