



SYSTEM 9100 - SPECIFICATION

AC INPUT

Mains, voltage:	190 - 253 VAC, 3 phase 47 - 63 Hz 360 - 440 VAC, 3 phase + neutral 47 - 63 Hz
AC voltage variation:	±10%

DC OUTPUT

Power Range	up to 10 kW
Current:	50A - 100 A - 150 A - 200 A versions
Voltage:	50 V
Regulation Topology:	Constant current regulation
Converter Topology:	Zero voltage switch-mode pre-regulation

PERFORMANCE

Warm up time (cold):	30 min.
Warm up time (stand-by):	15 min
Drift (long term 8 hours):	± 10ppm
Line regulation	
± 10% slow, T > 1 min.:	± 5ppm
± 1% fast, T > 3 m sec.:	± 5ppm
Load regulation	
± 10% resistance change:	TBD
Output ripple and noise	
Voltage – peak to peak:	< 100 mV @ 0-100 kHz
Load Range	
Time Constant (L/R):	0 - 1 sec
Inductance (L):	0 - 1 H (standard)
Temperature coefficient	
Ambient 15 – 40° C:	5ppm/°C
Ambient 15 – 30° C:	1ppm/°C
Current setting resolution:	20 bit DAC
Current reproducibility:	± 10ppm
Absolute current calibration:	-0 / +400ppm
Current readback resolution:	16 bit ADC
Voltage readback resolution:	16 bit ADC
Current control range:	1 – 100%
Slew rate limit:	0.15 – 2.5 A/sec
Current loop bandwidth:	2 – 100 Hz
Voltage loop bandwidth:	>200 Hz



Isolation test voltage: 1 kV

CONTROL PANEL

Alphanumeric LCD display:

Preset output current, 6 digits	[A]
Actual output current, 5 digits	[A]
Output voltage, 2 digits	[V]
Interlock status text string	

Push buttons and LED's

OFF	[Button]/[LED]
Reset (interlock)	[Button]/[LED]
ON	[Button]/[LED]
Menu	[Button]
Out of regulation	[LED]

Remote control / interfacing

RS232 as standard (RS422 and RS485, SPI or Ethernet are available on request)

The following status messages are available via the remote control interface:

- ON/OFF command
- Reset command
- ON/OFF status
- Remote status
- Output current
- Output voltage
- Ambient temperature
- Delta temperature
- Internal power supply 15 V
- Internal power supply 5 V
- I set value
- V set value

The following controls are available via the analog control interface:

- Set current
- Set voltage
- Output current readback
- Output voltage readback

Interlock status

- Over voltage
- Over current
- Over temperature
- Fan fault
- Earth leakage
- AC fault
- Out of regulation
- External interlock (ext. 1 – 4)
- Summary interlock



COOLING

Water:	1 l/min @ max. Inlet temperature 35°C
Differential pressure:	1 bar
Test pressure:	15 bar

TEMPERATURE RATINGS

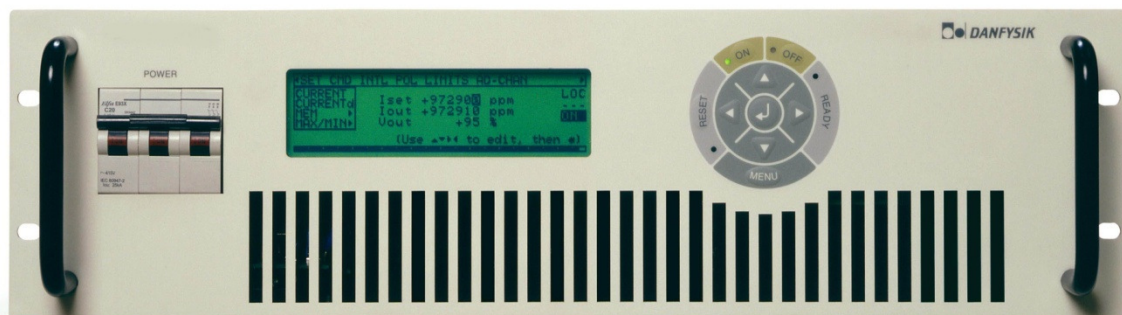
Operation Ambient temperature:	15 - 40° C
Storage temperature:	-20 - 70° C, non-condensing

CABINET LAY-OUT

Material:	Steel
Dimensions W x D x H:	482 mm x 550 mm x 132.5 (3U)
	19 inch rack mount
Weight	32 kg (shipping weight 35 kg)

NORMS

Immunity for industries:	EN/IEC 61000-6-2:2005
Emission for industries:	EN/IEC 61000-6-4:2007
Harmonic Emission (single phase):	EN/IEC 61000-3-2:2000
Harmonic Emission (three phase):	EN/IEC 61000-3-12:2005
Electromagnetic compatibility:	EN/IEC 61000-3-11:2000
Safety requirements for electrical equipment:	EN/IEC 61010-1:2001





EXAMPLE OF RACK ASSEMBLY



PRELIMINARY