

SPECIFICATION DF7000-75-20

AC INPUT

Mains, voltage: 190-253 VAC (208V \pm 10%), 3 phase 47-63 Hz
360-440 VAC (400V \pm 10%), 3 phase + neutral
47-63 Hz

DC OUTPUT

Power Range 1.5 kW
Voltage: \pm 75 VDC
Current: \pm 20A
Regulation Topology Analog
Converter Topology Switch-mode with linear bipolar transistor stage

PERFORMANCE

Warm up time (cold) 30 min.
Warm up time (stand-by) 15 min
Drift (long term 8 hours (fwhm))
Standard \pm 100ppm

Line regulation:
 \pm 10% slow, T > 1 min. \pm 50ppm
 \pm 1% fast, T > 3 m sec. \pm 50ppm

Load regulation:
 \pm 10% resistance change < 500 ppm

Output ripple and noise
Voltage – peak to peak < 15mV @ 0-100kHz
Current (RMS) 1mA in 1mHy

Load Range
Time Constant (L/R) 0 - 2.5 sec.
Inductance (L) 0 – 1Hy
Resistance (R) 0.5 – 4 ohms

Temperature coefficient:
Ambient \pm 10ppm/ $^{\circ}$ C

Current setting resolution Linear / 16 bit (remote/local)

Current reproducibility \pm 25ppm

Absolute current calibration 0.1 %

Current readback resolution	Linear
Current control range	0 – 100%
Slew rate limit	5A/sec to 400A/sec
Current loop bandwidth	0.5Hz, 5Hz or 20Hz (jumper inside) @ 1 ohm resistive load
Voltage loop bandwidth	200Hz

CONTROL PANEL

Voltage Display, 5 digits, 16 bit res.:

Output voltage	[V]
Polarity	[pos/neg]

Current Display, 5 digits, 16 bit res.:

Current output	[A]
Current setpoint	[A]
Current limit	[A]
Polarity	[pos/neg]

Interlock status:

Over temperature	[LED]
“Internal” (Converter over voltage)	[LED]
Output over voltage	[LED]
Output over current	[LED]
Ground fault (fuse)	[LED] (can be disabled)
AC fault	[LED]
External interlocks (Ext.1-4)	[LED] (can be disabled)
Summary fault	[LED]
Out of regulation (READY)	[LED]

Push buttons and LED's

OFF (also active on slaves)	[Button]/[LED]
Reset (interlock)	[Button]/[LED]
ON	[Button]/[LED]
Local/remote switch	[Button]/[LED]
Select Output Current display	[Button]

Local control / interfacing

Analog Input:	
Setpoint reference	0 - ±10V
Analog Outputs:	
Setpoint readback	0 - ±10V
Output voltage	0 - ±10V
Output current	0 - ±10V
Error signal (master + slaves)	0 - ±10V

Remote control / interfacing

Internal CPU controllable via RS232. (RS422 and RS485 or Ethernet are available on request)

All Analog input/output values (see above) can be controlled/read via the remote control interface.

Besides that the following commands/status messages are also available via the remote control interface:

ON/OFF command

Reset command

ON/OFF status

Remote status

Over voltage interlock

Over current interlock

Over temperature interlock

Fan fault interlock

Ground fault (fuse) interlock

AC fault interlock

Out of regulation (READY) interlock

External interlocks interlock (Ext.1-4)

Summary fault interlock

TEMPERATURE RATINGS

Operating temperature:

Ambient 10 – 40°C

Storage temperature 5 – 40°C, non-condensing

CABINET

Material Steel

Dimensions W x D x H 482mm x 420mm x 3U (5,25")

19 inch rack mount

Weight 25kg

NOTE: All ppm figures refer to maximum output current. Specifications are subject to change without notice.

*) Customised design is available on request - please contact DANFYSIK.