

Intepro 9000 Series

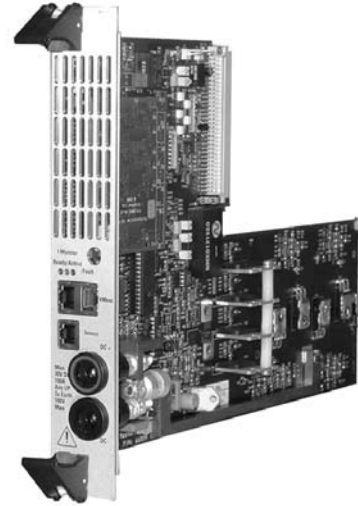
100Amp/30Volt/200-Watt Load

- Remote sense for accurate voltage measurements
- CAN bus and CANopen protocol compatible
- Optimised for low voltage operation

The 200-Watt DC Load is a variable electronic unit which is capable of sinking up to 100 amps at low voltages.

Designed for use in an Intepro 9000 system, the 200W Load is 261mm(6U) high, approximately 390mm deep and fits into a 19-inch rack.

Each Load possesses local intelligence in the form of a microcontroller. This enables more efficient operation of constant voltage mode.



High Current Low Voltage 200 Watt DC Load

used to communicate with the host PC over an IEEE link. The Controller Module relays commands and information over the internal CAN bus to the Master Loads. Each Load in a rack system can be addressed individually, as each back plane PCB slot has a unique address.

The sense voltage from each Load can be daisy chained via RJ45 connectors and connected to a high speed Measurement Module which performs transient, peak, counting, timing, ripple and noise, DC, and AC tests on the DUT.

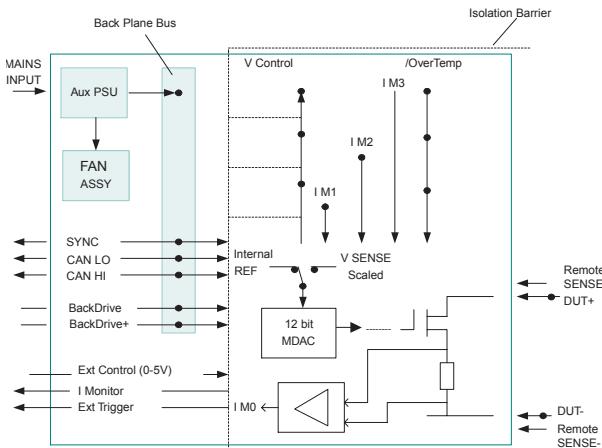


Figure 1: System Load Block Diagram

Features of the 200W DC Load include:

- ? High slew rate performance
- ? Analog to digital converter for measurement of voltage and current to 15-bit resolution
- ? 1kV isolation
- ? Parallellable
- ? 0.8V operation at 100A

Controller Module

In an Intepro 9000 System, the Loads are controlled via a Controller Module (20mm /4HP wide) that is

Constant I Mode

Range	Resolution	Accuracy
0-10A	2.5mA	±0.05%SET±10mA
0-100A	25mA	±0.05%SET±50mA

Constant V Mode

Range	Resolution	Accuracy
0.8-2V	0.5mV	±15mV
0.8-7.5V	2mV	±20mV
0.8-20V	5mV	±40mV
0.8-30V	20mV	±120mV

Constant P Mode

Range	Resolution	Accuracy
1mW-20W	2.5mW	2.5% FS
10mW-200W	25mW	2.5% FS

Technical Specifications

Power	20W	200W	Operating Voltage below 0.8V	0.4V@50A/0.2V@25A
Current	0-10A	0-100A	Min Voltage on full Load	0.8V@100A
Voltage	0.8-30V	0.8-30V	Module Power Consumption	12V@0.4A

	Range	Resolution	Accuracy
Slew Rate	16mA/μs ~ 4A/μs	16mA/ms	±10% SET ±10% FS

Constant R Mode	Range	Resolution	Accuracy	Temp Coefficient
0-2V Input Range	125S-50S/0R008-0R02	47.5mS	±1% SET ±250mA	200PPM/°C
0-7.5V Input Range	50S-7.52S/0R02-0R133	12.5mS	±1% SET ±250mA	200PPM/°C
0-20V Input Range	7.52S-2S/0R133-0R5	4.75mS	±1% SET ±250mA	200PPM/°C
0-30V Input Range	2S-0.5mS/0.5R-2K	1.25mS	±1% SET ±300mA	200PPM/°C

Measurement	Range	Resolution	Accuracy	Output
Voltage readback	0-2V	15bit (62.5μV)	±0.05% ACT± 5mV	N/A
	0-7.5V	15bit (0.23mV)	±0.05% ACT ±0.1% FS	N/A
	0-20V	15bit (0.625mV)	±0.05% ACT ±0.1% FS	N/A
	0-30V	15bit (2.3mV)	±0.05% ACT ±0.1% FS	N/A
Current readback	0-10A/0-100A	0.313mA/3.13mA	±0.05% ACT ±0.05%FS	N/A
Power readback	0-20W/0-200W	0.25mW/5mW	±0.5% FS	N/A
Current Monitor Output Isolated	0-10A/0-100A	N/A	±1% FS	0-10V

Temp Coefficient	Max 100PPM/°C
Operating Temp.	5°C to 40°C
Dimensions	261mm (H) 40mm (W) 390mm (D)
External Control	0-5V input gives 0-100A output
Description	LML9203 (100A/30V/200W)
Part Number	714-0024

Note: For ambient temperatures over 35°C, derate power dissipation by 4W/°C

OTP: (Over Temperature Protection):
Non Latching disable

Reverse Connection Protection Action:
Fuse protects against overcurrent - no action at nominal current

OVP: (Over Voltage Protection):
Greater than 35V crowbar

Isolation Voltage to GND:
Safety (1000V DC Peak)

SET: Refers to the set value

ACT: Refers to the actual value being measured



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