

40A Load Module - E2010 Series

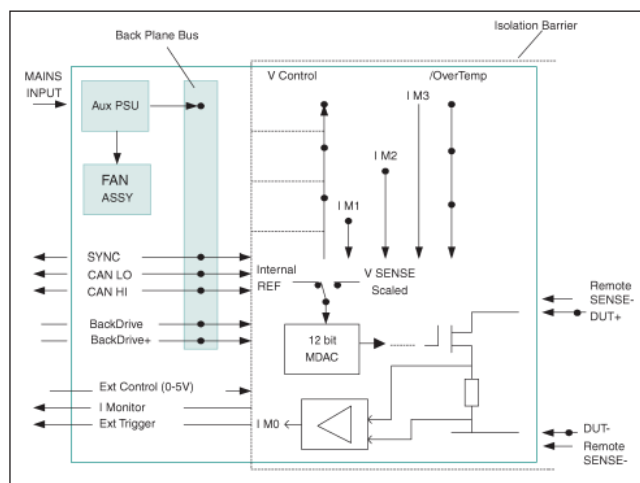
- REMOTE SENSE IN MASTER LOADS FOR ACCURATE VOLTAGE MEASUREMENT OF THE DUT
- CAN BUS AND CAN OPEN PROTOCOL COMPATIBLE
- ARBITRARY WAVEFORM GENERATOR ALLOWS MULTIPLE SETTINGS AND WAVEFORMS TO BE PROGRAMMED

The 200-Watt DC Load is a variable electronic unit which is capable of sinking up to 40 amps. This is available as an RE2010 module which is for a 6U high rack or as a 1U standalone Ethernet Instrument.

FEATURES

- Programmable slew rate performance
- Parallelable
- Analog to digital converter for on-board measurement of voltage and current to 15-bit resolution
- 1kV isolation

Designed for use in an E2010 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.



System Load Block Diagram

Controller Module

In an E2010 System, the Loads are controlled via a Controller Module (20mm /4HP wide) that is used to communicate with the host PC over an Ethernet link.

The Controller Module relays commands and information over the internal CAN bus to the Master Loads.



E2010
40A DC Load
721-0006



RE2010
40A DC Load
722-0006

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.

Constant I Mode		
Range	Resolution	Accuracy
0-4A	2.5mA	±0.05%SET±4mA
0-40A	25mA	±0.05%SET±4mA
Constant V Mode		
Range	Resolution	Accuracy
1-2V	0.5mV	±15mV
1-7.5V	2mV	±20mV
1-20V	5mV	±40mV
1-75V	20mV	±120mV

Technical Specifications

POWER	20W	200W	Operating Voltage below 1V	0.5V@20A/0.25V@10A
CURRENT	0-4A	0-40A	Min Voltage on Full Load	1V@40A
VOLTAGE	1-75V	1-75V	Module Power Consumption	12V@0.4A
TEMP. COEFFICIENT	Max 100PPM/°C			
CONSTANT R MODE	Range	Resolution	Accuracy	Temp Coefficient
0-2V INPUT RANGE	40S-20S / 0R025-0R05	19mS	±1% SET ±100mA	200PPM/°C
0-7.5V INPUT RANGE	20S-7.52S / 0R05-0R133	5mS	±1% SET ±100mA	200PPM/°C
0-20V INPUT RANGE	7.52S-2S / 0R133-0R5	1.9mS	±1% SET ±100mA	200PPM/°C
0-75V INPUT RANGE	2S-0.5mS / 0.5R-2K	0.5mS	±1% SET ±120mA	200PPM/°C
MEASUREMENT	Range	Resolution	Accuracy	Output
VOLTAGE READBCK	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
	0-75V	15bit (2.3mV)	±0.05% ACT ±0.1% FS	N/A
CURRENT READ- BACK	0-4A / 0-40A	0.125mA / 1.25mA	±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	0-4A / 0-40A	N/A	±0.5% FS	N/A
SLEW RATE	16mA/µs ~ 4A/µs	16mA/ms	±10% SET ±10% FS	
EXTERNAL CON- TROL	0-5 V input gives 0-40A output			
OPERATING TEMP.	5°C to 40°C			
DIMENSIONS	261mm (H) 40mm (W) 390mm (D)			
FAMILY SPEC. SAFETY	OTP: (Over Temperature Protection):		Non Latching disable	
	OVP: (Over Voltage Protection):		Greater than 80V crowbar	
	Isolation Voltage to GND:		Safety (1000V DC Peak)	
	Reverse Connection Protection Action:		Fuse protects against overcurrent - no action at nominal current	
ORDERING INFORMATION	Part Number:		721-0006 (for a 6U Rack) 722-0006 (for a 1U Assembly)	
	Description:		40A/75V/200W	
SET: Refers to the set value			ACT: Refers to the set value	

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