

DATASHEET 1311-B-20V20C5

Output:

- Voltage: -20 V ... 20 V

- Current: -5 A ... 5 A

- Power: 100 W



The specified accuracies refer to an ambient temperature of 25°C ±5°C.

The specified accuracies are valid when the unit is connected to undisturbed voltages (Ripple and Noise <0.1%). At voltages with higher disturbance values the accuracy can change for the worse.

Accuracy of Setting

| | of setting | of corresponding range |
|---------------------|------------|------------------------|
| Voltage | ±0.1% | ±0.05% |
| Current | ±0.2% | ±0.05% |
| Voltage Limitation | ±0.1% | ±0.05% |
| Current Limitation | ±0.2% | ±0.05% |
| Resolution Setting | | 16 Bit |
| Ripple | | ±0.05% RMS of range |
| Load Effect 0-100% | | 0.1% |
| Line Effect AC ±10% | | 0.02% |

Accuracy of Display:

| | of measured value (real value) | of corresponding range |
|------------|--|------------------------|
| Voltage | $\pm 0.1\%$ | $\pm 0.05\%$ |
| Current | $\pm 0.2\%$ | $\pm 0.05\%$ |
| Resistance | Quotient of voltage and current | |
| Power | Product of voltage and current | |

Accuracy of Analog Programming:

-5V ... 0 ... 5V / -10V ... 0 ... 10V for Current, Voltage

| | of setting | of corresponding range |
|---|-------------|------------------------|
| Voltage | $\pm 0.2\%$ | $\pm 0.15\%$ |
| Current | $\pm 0.4\%$ | $\pm 0.15\%$ |
| Voltage Limitation * (upper and lower) | $\pm 0.2\%$ | $\pm 0.15\%$ |
| Current Limitation * (upper and lower) | $\pm 0.4\%$ | $\pm 0.15\%$ |

* only -10V ... 0 ... +10V

Input impedance of the analog inputs: > 10k Ω
GND max. $\pm 2V$ against negative output terminal¹⁾

Accuracy of Analog Monitor Outputs:

-10V ... 0 ... 10V for Current, Voltage

| | of analog signal of the real value | offset voltage |
|---------|---------------------------------------|----------------|
| Voltage | $\pm 0.1\%$ | $\pm 15mV$ |
| Current | $\pm 0.2\%$ | $\pm 15mV$ |

GND max. $\pm 2V$ against negative output terminal¹⁾
Minimum loading capacity 2k Ω

Accuracy of Measurement, Reading via Data Interface:

| | of measured value (real value) | of corresponding range |
|--|-----------------------------------|---------------------------|
|--|-----------------------------------|---------------------------|

| | | |
|--------------------------------|------------------------------|---------------|
| Voltage | ±0.1% | ±0.05% |
| Current | ±0.2% | ±0.05% |
| Resolution Measurement | 18 Bit | |
| Reading Rate (free running) | 330ms not triggerable | |

Accuracy of Measurement, Reading via Data Interface: NL13 Option

| | | |
|------------------------|--|------------------------------|
| | of measured value (real value) | of corresponding range |
| Voltage | ±0.15% | ±0.07% |
| Current | ±0.3% | ±0.07% |
| Resolution Measurement | 13 Bit | |
| Reading Rate | min. 200µs (in memory) triggerable | |

Power

| | |
|---------------|-------------------------------------|
| Nominal Power | up to $T_A = 21\text{ °C}$ |
| Derating | -1.2% / °C for $T_A > 21\text{ °C}$ |

Input Impedance > 50 kΩ in standby

Operating Temperature 5°C ... 40°C

External Control Functions

- Stand-by
- Trigger input and output
- Mode switching
- Emergency shutdown

Protection Equipment

- Current and voltage limitation
- Over-temperature deactivation

Rise and Fall Time ²⁾ **200 µs**

Parallel Operation up to 3 devices in master-slave operation
(hardware-controlled in current mode only)

Cooling Current and temperature-controlled fans

| | |
|---------------------------------------|--|
| Dimension³⁾, Weight | 19" / 2 HU, 13 kg |
| Mains Supply | 115/230 VAC ± 10% 50 ... 60Hz |
| Power Consumption | 250 VA |
| Electric Safety | DIN EN 61010-1 |
| EMC, CE-Mark | DIN EN 61326-1 DIN EN 61000-3-2 DIN EN 61000-3-3 |

Measuring Device Category CAT I

Permissible Operating Voltages: Negative Output Terminal- Case

±125V DC

**Permissible Operating Voltages:
Analog Interface - Negative Output Terminal**

| | |
|------------------|----------|
| Standard | ±2V DC |
| with NL06 Option | ±125V DC |

Colour

| | |
|-------------|-----------------------|
| Front Panel | RAL7032 (pebble grey) |
| Sides, Lid | RAL7037 (stone grey) |

1) ±125V with NL06 Option

2) Rise and fall times are defined as 10%...90% and 90%...10% of the maximum current (measured in constant current mode - FAST)

3) 1HU = 44.45mm