

# AXC76xx High Current SMU Family



## TECHNICAL DATA SHEET

### Features

PXI

VXI

LAN

cPCI

PXIe

GPIB

USB

RS232  
485

external  
PCIe

- Output current up to 2,000 A and output voltage up to 120 V; Pulse and DC capable
- Very fast rise and fall time
- Programmable current pulse with auto-measurement of current and voltage
- Very high power density in less space
- Fully isolated design, isolated outputs
- Trigger capabilities and digital I/Os
- Integrated measurement units with current monitor signal
- Front touch display available

## Product Information

The AXC76xx High Current SMU was designed for power semiconductor and high throughput testing.

### Modern switching regulator technology

The AXC76xx High Current SMU is based on modern and efficient switching regulator technology.

This allows a very high power density in less space. Furthermore the fan noise is reduced significantly due to less heat production. The AXC76xx High Current SMU family contains devices with up to 30kW. The outputs are isolated due to a isolated design.

### DC or pulse mode

Every AXC76xx High Current SMU is capable of generating full scale DC current and voltage. For power semiconductor testing the integrated current pulse mode might be very helpful. Very fast rise and fall times allow current pulses down to 2ms. Automatic current and voltage measurement time stamps can be configured in pulse mode.

### Integrated measurement units...

Together with the integrated voltage measurement unit (VMU) and the integrated current measurement unit (CMU) all high current tests of power semiconductor can be done easily.

### ...with monitor signal

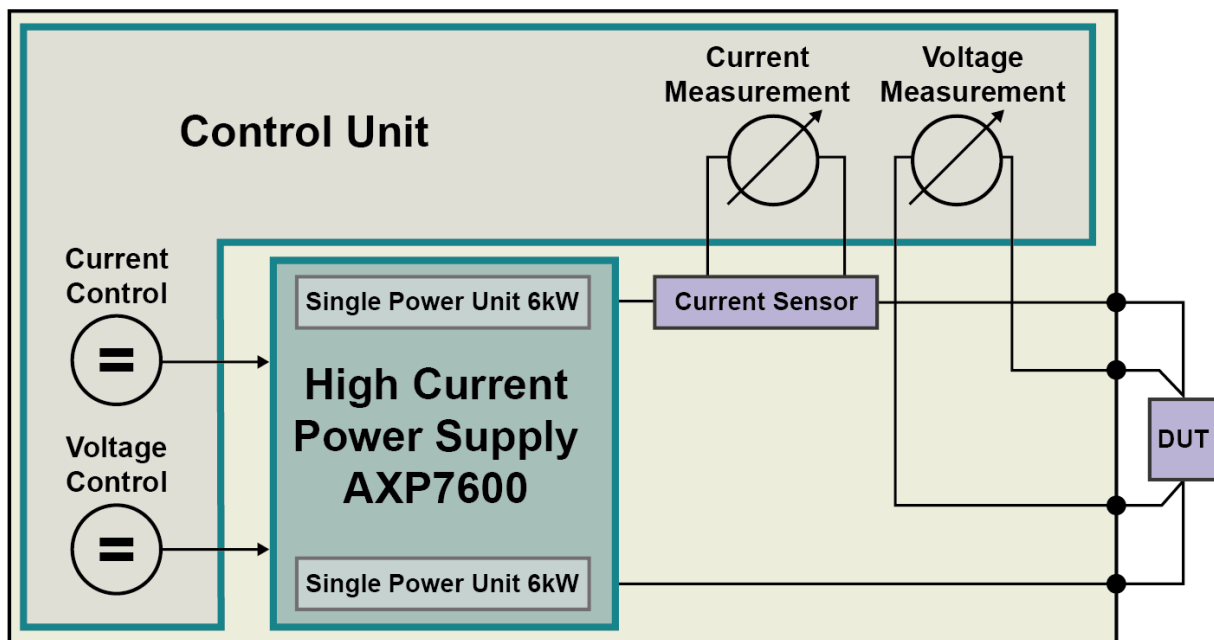
The output current can be measured on the integrated current monitor output with an oscilloscope.

### Many safety features

Integrated safety features like various temperature monitorings, mains monitoring, overcurrent detection and a safety interlock help to avoid danger to personnel, equipment or the device under test.

### Trigger- and digital-I/Os

The integrated trigger input and output allows interaction with other test equipment. The AXC76xx High Current SMU has 4 digital outputs to control relays.



General	Specification	Comment
AC line voltage	3~400V <sub>AC</sub> ±10%	
AC line frequency	50/60Hz	
Power consumption	6kW per Single Power Unit	Up to 5 SPU's possible
Operating temperature	0...50°C	
Operating altitude	<2,000m	
Relative Humidity	Up to 85% at 35°C	
Storage temperature range	-25...70°C	
Size	19"	Height see ordering information table
Weight	See ordering information table	Depending on configuration
Electrical safety	According EN61010-1	
Isolation output to PE	120V CAT I, Pollution Degree 2	

Voltage Control Unit	Specification	Comment
Resolution	16 Bit	
DC accuracy	±0.3% of full scale	
Maximum output voltage	See ordering information table	

Current Control Unit	Specification	Comment
Resolution	16 Bit	
DC accuracy	±0.3% of full scale	±0.1% of full scale with option HP
Maximum output current	See ordering information table	
Pulse length	>2 ms	

Voltage Measurement Unit	Specification	Comment
Resolution	16 Bit	
Filter frequencies	100Hz, 1 kHz, 10 kHz, 100 kHz	
DC accuracy <sup>1</sup>		
Range 1V	±0.1% of full scale	
Range 10V	±0.1% of full scale	
Range 100V	±0.1% of full scale	

Current Measurement Unit	Specification	Comment
Resolution	16 Bit	
Filter frequencies	100Hz, 1 kHz, 10 kHz, 100 kHz	
DC accuracy <sup>1</sup>		
Range *A	±0.3% of full scale Max. output current	±0.1% of full scale with HP option See ordering information table

<sup>1</sup> With 100Hz-filter and 20 samples with an interval of 1 ms.

**Notes:** All product data are specified for 1 year at an ambient temperature of 23°C ±5°C (after 1 hour warm-up time).  
Product specification and description in this document are subject to change without notice.

Ordering Information	Max. Current	Max. Voltage	Height	Weight	Comment
<b>AXC7611</b>	400 A	15 V	7U	50 kg	High Current SMU 400 A / 15 V
<b>AXC7613</b>	200 A	30 V	7U	50 kg	High Current SMU 200 A / 30 V
<b>AXC7616</b>	100 A	60 V	7U	50 kg	High Current SMU 100 A / 60 V
<b>AXC7618</b>	50 A	120 V	7U	50 kg	High Current SMU 50 A / 120 V
<b>AXC7621</b>	800 A	15 V	11U	80 kg	High Current SMU 800 A / 15 V
<b>AXC7623</b>	400 A	30 V	11U	80 kg	High Current SMU 400 A / 30 V
<b>AXC7626</b>	200 A	60 V	11U	80 kg	High Current SMU 200 A / 60 V
<b>AXC7628</b>	100 A	120 V	11U	80 kg	High Current SMU 100 A / 120 V
<b>AXC7631</b>	1,200 A	15 V	15U	110 kg	High Current SMU 1,200 A / 15 V
<b>AXC7633</b>	600 A	30 V	15U	110 kg	High Current SMU 600 A / 30 V
<b>AXC7636</b>	300 A	60 V	15U	110 kg	High Current SMU 300 A / 60 V
<b>AXC7638</b>	150 A	120 V	15U	110 kg	High Current SMU 150 A / 120 V
<b>AXC7641</b>	1,600 A	15 V	19U	140 kg	High Current SMU 1,600 A / 15 V
<b>AXC7643</b>	800 A	30 V	19U	140 kg	High Current SMU 800 A / 30 V
<b>AXC7646</b>	400 A	60 V	19U	140 kg	High Current SMU 400 A / 60 V
<b>AXC7648</b>	200 A	120 V	19U	140 kg	High Current SMU 200 A / 120 V
<b>AXC7651</b>	2,000 A	15 V	23U	170 kg	High Current SMU 2,000 A / 15 V
<b>AXC7653</b>	1,000 A	30 V	23U	170 kg	High Current SMU 1,000 A / 30 V
<b>AXC7656</b>	500 A	60 V	23U	170 kg	High Current SMU 500 A / 60 V
<b>AXC7658</b>	250 A	120 V	23U	170 kg	High Current SMU 250 A / 120 V
<b>Option GPIB<sup>2</sup></b>					GPIB Interface
<b>Option USB<sup>2</sup></b>					USB2.0 Interface
<b>Option LAN<sup>2</sup></b>					Ethernet Interface
<b>Option FE<sup>2</sup></b>					Front panel display
<b>Option HP</b>					High precision DC accuracy

<sup>2</sup> One of these interface options is mandatory.