

The C13145-01 is a high voltage power supply module capable of handling simultaneous 8-channel outputs. The output voltage of each channel can be separately adjusted. Inputting +24 V to the C13145-01 generates negative high voltages. This module is designed to be mounted in equipment, and features low ripple noise and fast response.

### FEATURES

- Simultaneous 8-channel outputs
- Low ripple/noise
- High stability
- Fast response

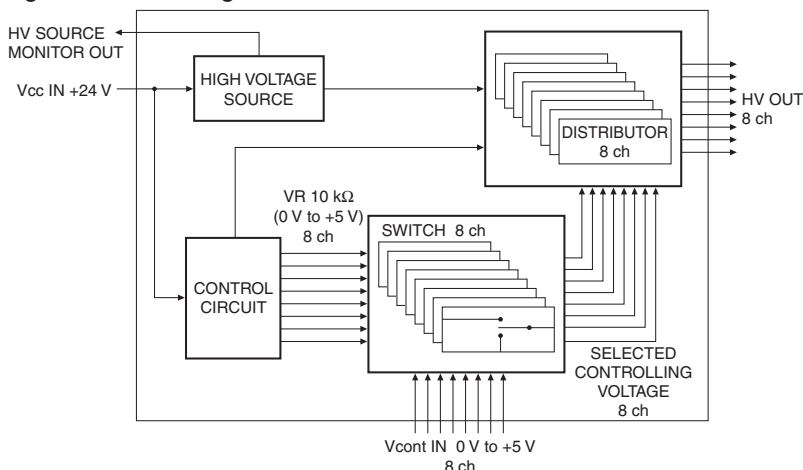


### SPECIFICATIONS

Parameter	Value / Description		Unit
Input voltage	+24 ± 1.2		V
Input current <sup>(A)</sup>	with no load	Typ. 170	mA
	with full load	Typ. 580	mA
No. of channel	8		—
Variable output voltage range	0 to -1000		V
Specification guaranteed output voltage range	-300 to -900		V
Output current	Max.	1 (per channel)	mA
Line regulation against 1.2 V input change <sup>(A)(B)</sup>	Typ.	±0.01	%
Load regulation against 0 % to 100 % load change <sup>(A)</sup>	Typ.	±0.01	%
Ripple / Noise (p-p) <sup>(A)(B)</sup>	Typ.	20 (Potentiometer control)	mV
Output voltage control	By external controlling voltage (0 V to +5 V) or potentiometer (10 kΩ)		—
Controlling voltage input impedance	Typ.	10	kΩ
Output voltage setting (Absolute value)	Typ.	Controlling voltage × 200	V
Output voltage rise time (0 % → 99 %) <sup>(A)(B)</sup>	Typ.	5 (Controlling voltage control)	ms
Temperature coefficient <sup>(A)(B)</sup>	Typ.	±0.03	%/°C
Operating ambient temperature <sup>(A)(B)</sup>	0 to +50		°C
Operating ambient humidity <sup>(C)</sup>	Below 80		%
Storage temperature	-20 to +70		°C
Storage humidity <sup>(C)</sup>	Below 80		%
Weight	Typ.	516	g
Protective functions	Protected against excessive controlling voltage input / over current		—

NOTE: <sup>(A)</sup>At maximum output voltage <sup>(B)</sup>At maximum output current <sup>(C)</sup>No condensation

Figure 1: Block diagram



TACCC0180EA

# 8-CHANNEL OUTPUTS HIGH VOLTAGE POWER SUPPLY C13145-01

Figure 2: Output voltage controlling characteristics

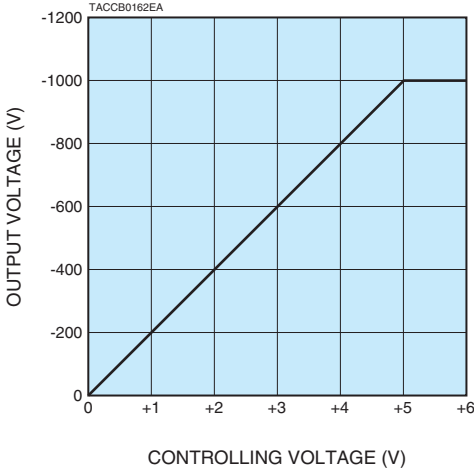


Figure 3: Overload characteristics

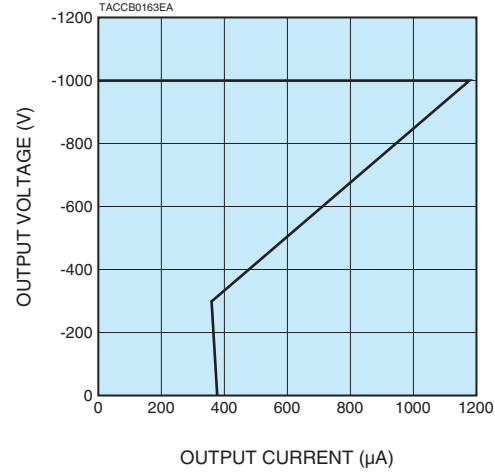


Figure 4: Ripple / noise

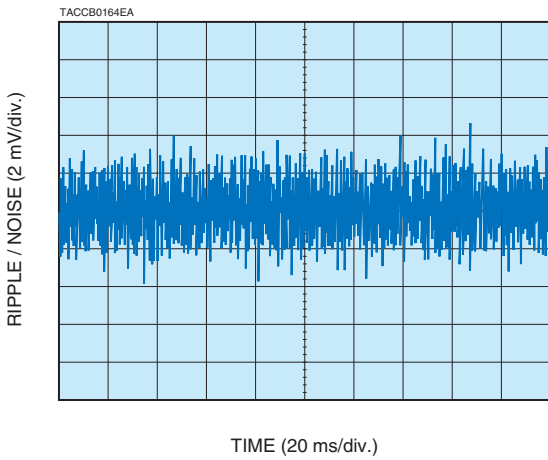


Figure 5: Time response characteristics

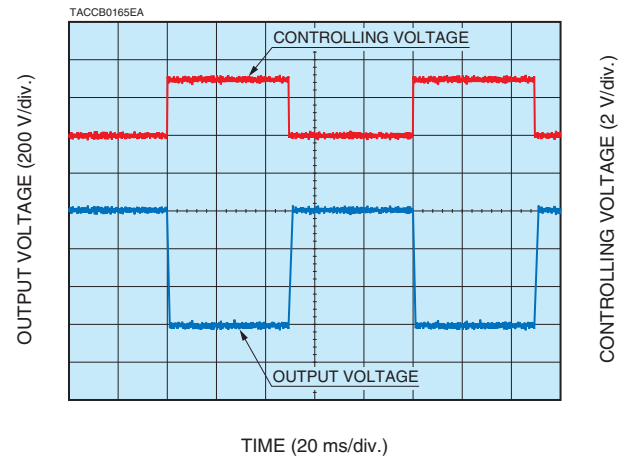
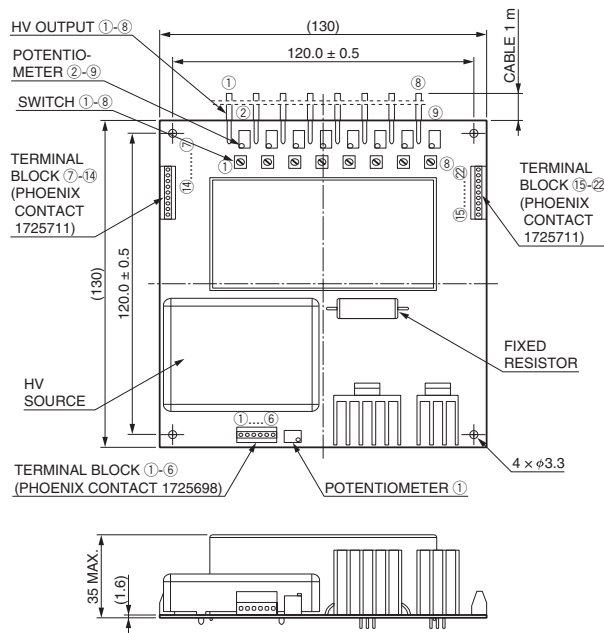


Figure 6: Dimensional outline (Unit: mm)



Terminal block ①	Input voltage +24 V
Terminal block ②	Input voltage GND
Terminal block ③	High voltage source current monitor output (-0.5 V/mV)
Terminal block ④	High voltage source current monitor GND
Terminal block ⑤	High voltage source voltage monitor output (-0.005 V/V)
Terminal block ⑥	High voltage source voltage monitor GND
Terminal block ⑦-②②	External voltage input for high voltage adjustment Odd numbers: controlling voltage 0 to +5 V Even numbers: controlling voltage GND
Potentiometer ①	High voltage source adjustment (12-turn potentiometer)
Potentiometer ②-⑨	Interval VR for high voltage adjustment (12-turn potentiometer)
Switch ①-⑧	Selecting switch for high voltage adjustment method
HV Output ①-⑧	AWG24 shield cable (1 m) *
Fixed resistor	Warning for high voltage
HV source	High voltage source

\* Available with connector.

TACCA0354EA

## HAMAMATSU PHOTONICS K.K. [www.hamamatsu.com](http://www.hamamatsu.com)

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: [usa@hamamatsu.com](mailto:usa@hamamatsu.com)

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: [info@hamamatsu.de](mailto:info@hamamatsu.de)

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: [infos@hamamatsu.fr](mailto:infos@hamamatsu.fr)

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: [info@hamamatsu.co.uk](mailto:info@hamamatsu.co.uk)

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: [info@hamamatsu.se](mailto:info@hamamatsu.se)

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: [info@hamamatsu.it](mailto:info@hamamatsu.it)

China: Hamamatsu Photonics (China) Co., Ltd.: B1201 Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: [hpc@hamamatsu.com.cn](mailto:hpc@hamamatsu.com.cn)

Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No.158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)03-659-0080, Fax: (886)07-811-7238 E-mail: [info@tw.hpk.co.jp](mailto:info@tw.hpk.co.jp)

TACC1076E01  
DEC. 2016 IP