



Variable-switching Regulated DC Power Supplies PVD-T Series



Constant Voltage and Constant Current, 18 Models
Maximum Rated Output Voltage of 600 V
Maximum Rated Output Current of 6 kW/600 A or 12 kW/1200 A
Low-Profile Designs for Greater Mounting Efficiency



JQA-EM1176
JQA-1100
Oscilloscopes
Withstanding Voltage Testers
Power Supply Equipment

**Compact
&
Big Power!**

The PVD-T series are variable-output switching DC power supplies, with wide-range constant-voltage (CV) and constant-current (CC) outputs that enable the setting of a constant power output.

The PVD-T series are available in 6 kW/12 kW versions, all of which are 19-inch rack-mountable and approximately 130 mm/260 mm in height. In addition to their excellent space factors, the PVD-T series offer not only the advantages of a switching system and the output quality of a series regulator, but also implement a large reduction in running costs (power consumption) which has traditionally been a problem with large-capacity DC power supplies.

With their soft switching technology, the PVD-T series provide greater efficiency and a low noise level very close to that of a series regulator. The PVD-T series also features a power factor of 0.95 (typical) with a power-factor improvement circuit to suppress harmonic currents.

The PVD-T series features analog remote control, circuit protection, an output/status monitor, and a programmable output sequencer. The programmable output sequencer supports the setting and storing of ten programs (maximum number of steps per program: 99) from the operation panel. In addition, up to five units of the same model, provided they have a GPIB or multi-channel interface card installed (one master and four slaves), can be connected with current sharing operation via the built-in control bus.

The PVD-T series are "next-generation digital power sources," that are ideal for aging, measurement, or providing control to a wide range of electronic devices.

New-Generation Digital Power PVD-T S

Variable-switching Regulated

Features

- Advanced soft-switching technology
- Noise characteristics very similar to those of a series regulator
- High voltage (600V), high-current (6kW/600A or 12kW/1200A) output
- Fast transient response of 3ms (6-kW models only)
- Large 6-kW capacity in low-profile (approximately 130mm in height) cabinets that can be 19-inch rack-mounted
- 32-bit full-digital control system
- Output sequencer supports the storing of ten programs, each of up to 99 steps
- Efficiency of approximately 90%, which helps reduce power consumption
- Power-factor improvement circuit produces power factor of 0.95
- RS-232C interface equipped as standard, with GPIB available as an option
- Analog remote control and voltage/current monitoring supported
- Extendable up to 30kW(3000A)/60kW(6000A) with current sharing parallel operation*
- Conforms to UL, CSA, FCC, and CE standards

*Current sharing operation requires the installation of the IF02-PVD-T multi-channel interface card or IF01-PVD-T GPIB interface card.

Computer Control

By adding remote control to its superb performance and functionality, the PVD-T series can serve as a large-capacity programmable DC power supply or system DC power supply to satisfy the requirements of an automatic inspection system or the like.

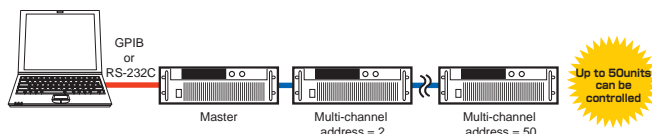
Digital remote control

●RS-232C (equipped as standard) and GPIB*1 (optional)

The PVD-T series can be programmed using a range of SCPI command sets. A full-scale power supply system can be built by using the features and alarm output controls of the PVD-T series (with the exception of power on/off controls)

●Multi-channel interface (optional)

Up to 50 PVD-T series units, provided they have a multi-channel interface card*2 (IF02-PVD-T) installed, can be controlled through the RS-232C or GPIB*3 interface. The PVD-T unit that will act as the master is connected to a PC through the RS-232C or GPIB interface, while the other PVD-T units, which will be the slaves, are connected through the multi-channel bus.*4 SCPI commands are then executed from the PC, with the channel addresses specified, to control the target PVD-T units.



Sources, Superior to Series Regulators

ERIES

DC Power Supplies



6kwType

12kwType



Large, Heavy, and with High Running Costs..

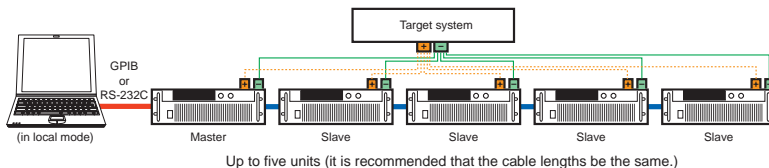
The PVD-T Series Can Solve These Problems!

current sharing operation

The PVD-T series supports the configuration of a large-capacity programmable DC power supply system that is able to handle a maximum of 30kW (10V/3000A or 600V/50A) with current sharing operation. This is achieved by connecting up to five units of the same model with a multi-channel interface card*2 installed.

In addition, using analog/digital remote control with the master allows the power supply to be used with a wider variety of applications.

*We welcome orders for current sharing operation systems. Contact our sales office for more information.



Analog remote control*5 (equipped as standard)

The PVD-T series supports the configuration of a power supply system by making use of its functions for externally controlling the output voltage/current by analog signals (0 to 5V/0 to 10V), reading back the output voltage/current by monitor outputs (0 to 5V/0 to 10V), shutting down the output by external signals, status signal outputs*6, and more.

*1: For GPIB control, the IF01-PVD-T GPIB interface card must be installed.

*2: For making the connections between multi-channel interface cards, use RS-232C extension cables (D-sub 9-pin female - D-sub 9-pin male, straight, all-wire shielded, 1.5 m or less).

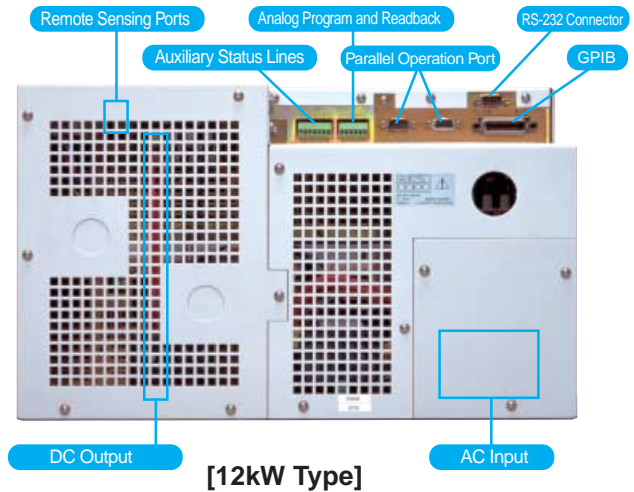
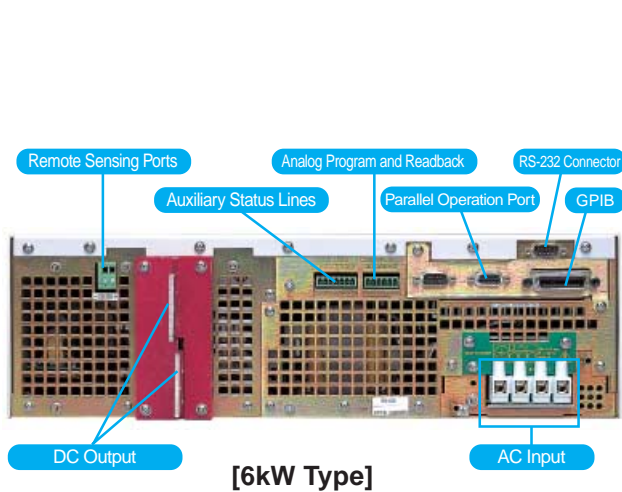
*3: For GPIB control, the master requires the installation of the IF01-PVD-T GPIB interface card. The IF01-PVD-T GPIB interface card incorporates a multi-channel interface.

*4: The multi-channel bus must be terminated at both ends. The multi-channel interface card incorporates a terminating resistor.

*5: For details on how to use the model PIA4810 as a power supply controller, contact our sales office.

*6: Two status signal outputs are available. One of 18 statuses is selected for the respective outputs.

●Rear Panel The illustrations below show PVD models with the IF01-PVD-T GPIB interface card installed.



●Specifications The models listed below are manufactured by XANTREX Technology Inc. of Canada.

[6kWType] ■ Dimension/Weight(approx.): 483W×133HX462(650*)Dmm/34kg

*The maximum depth of PVD300-20T and PVD600-10T is 585mm.
 ●Values in parentheses indicate the maximum dimensions including protrusions such as brackets. Standard bracket for the inch size.
 ●Each model has both inch- and millimeter-pitch bracket holes for rack mounting.

Model	Output		Constant Voltage					Constant Current				Other	
	CV	CC	Ripple	Line Regulation	Load Regulation	Transient Response	Rise/ fall time	Ripple	Line Regulation	Load Regulation	Efficiency	Input Voltage	Input Current
	V	A	mVrms	mV	mV	ms or less	ms(at full load)	mArms	mA	mA	%	V	A
PVD10-600T	0 to 10	0 to 600	10	1	10	3	100/50	3100	300	620	85	3ø 190 to 242 47Hz to 63Hz	24
PVD20-300T	0 to 20	0 to 300	10	2	15	3	100/50	1600	150	320	87		24
PVD40-150T	0 to 40	0 to 150	15	4	25	3	100/50	750	75	170	87		24
PVD60-100T	0 to 60	0 to 100	15	6	35	3	100/50	450	50	120	89		24
PVD80-75T	0 to 80	0 to 75	15	8	45	3	100/50	320	37.5	95	89		24
PVD100-60T	0 to 100	0 to 60	20	10	55	3	100/50	230	30	80	90		24
PVD150-40T	0 to 150	0 to 40	20	15	80	3	100/50	120	20	60	90		24
PVD300-20T	0 to 300	0 to 20	30	30	155	3	100/50	50	10	40	91		24
PVD600-10T	0 to 600	0 to 10	80	60	305	3	100/50	25	5	30	91		24

[12kWType] ■ Dimensions/Weight(approx.): 483W×263HX462(615)Dmm/77kg

●Values in parentheses indicate the maximum dimensions including protrusions such as brackets. Standard bracket for the inch size.
 ●Each model has both inch- and millimeter-pitch bracket holes for rack mounting.

Model	Output		Constant Voltage					Constant Current				Other	
	CV	CC	Ripple	Line Regulation	Load Regulation	Transient Response	Rise/ fall time	Ripple	Line Regulation	Load Regulation	Efficiency	Input Voltage	Input Current
	V	A	mVrms	mV	mV	ms or less	ms(at full load)	mArms	mA	mA	%	V	A
PVD10-1200T	0 to 10	0 to 1200	10	1	10	35	100/50	6200	1200	2440	85	3ø 190 to 242 47Hz to 63Hz	48
PVD20-600T	0 to 20	0 to 600	10	2	15	35	100/50	3200	600	1240	87		48
PVD40-300T	0 to 40	0 to 300	15	4	25	35	100/50	1500	300	640	87		48
PVD60-200T	0 to 60	0 to 200	15	6	35	35	100/50	900	200	440	89		48
PVD80-150T	0 to 80	0 to 150	15	8	45	35	100/50	640	150	340	89		48
PVD100-120T	0 to 100	0 to 120	20	10	55	35	100/50	460	120	280	90		48
PVD150-80T	0 to 150	0 to 80	20	15	80	35	100/50	240	80	120	90		48
PVD300-40T	0 to 300	0 to 40	30	30	155	35	100/50	100	40	100	91		48
PVD600-20T	0 to 600	0 to 20	80	60	305	35	100/50	50	20	60	91		48

●Option

■ GPIB interface card
IF01-PVD-T



■ Multichannel interface card
IF02-PVD-T



[Notes]

- With the 12-kW models, the CV and CC indicators on the display may light alternately when the output is turned on with no load applied, and if the output current is set to 3% or less of the rated current.
- Setting a high through-rate may cause an overshoot to occur on a voltage rising edge when the voltage on the load is to be increased. When using an automatic sequencer or another device for switching the output voltage, connect an oscilloscope to the output and check that it does not have an adverse affect on the load.



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