

Kepco's MST-MV (VXP 3000 Replacement): When you need to change the power supply, NOT the TPS! 1800W DC Modular/Redundant GPIB Power System



Kepco's MST-MV Power Supplies provide drop-in solutions for extending the life of Automated Test Systems such as the VXP 3000 without the need to rewrite and re-validate Test Program Sets (TPS). MST-MV's are drop-in replacements with matching connectors and lugs. No need to perform labor intensive rewiring. MST-MV are two-quadrant constant voltage/constant current power supplies with programmable polarity/disconnect switching relays built-in.

The systems are configurable using the RA 55-V 9-slot rack adapter chassis that accommodates up to nine 200 watt power modules. The MST 488-27V Controller controls up to 27 power modules from a single GPIB address. The MST-ADM Auxiliary Drive Module are available for controlling other analog-con-

trolled power supplies up to 150kW. The RA 55-V chassis comes with connectors that allow the use of existing wiring.

One RA 55-V slot accepts Kepco's MST-ADM (analog programmer) controlled by SCPI or ABLE commands via GPIB, that outputs analog voltages to control other power supplies.

Additional RA 55-V chassis may be added to allow up to 27 channels of MST power supplies and other compatible supplies. The RA 55-V comes with standard IEEE 488 and RS 232 ports. Ethernet (LAN) and USB ports are optional.

MST-MV's are compatible with Kepco's MAT and MBT families of 360, 720 and 1080 Watt power supplies. Each of these legacy families of power supplies are characterized as a digitally-controlled fast voltage and current stabilized d-c source with a sharp crossover between the voltage and current modes of operation.

The MST modules plug in from the front and may be unplugged and removed without shutting down the entire power system.

N+1 redundancy is provided with forced current sharing when like modules are mounted together and wired in parallel. Nine different modules are offered from a 0-6V/20A unit to a 0-150V/1.2A rating. Each module is equipped with internal load disconnect relays and polarity reversal relays. Series configurations allow for higher voltages.

The RA 55-V chassis can be configured for redundant input a-c.

Each module contains a single address, multiple instrument serial port. It is a 2-wire serial bus operating at 375KHz that can address as many as 27 separate modules of either the MST, MAT or MBT design. This bus can interface directly to a PC or to a GPIB controller.

MST-MV MODEL TABLE							
MODEL (1)(2)	OUTPUT VOLTAGE (Volts dc)	OUTPUT CURRENT Maximum (Amps)			RIPPLE/NOISE		EFFICIENCY (Percent)
	Adjustment Range	45 ° C	55 ° C	65 ° C	mV rms	mV p-p	100% Load
MST 6-20MV	0 - 6	20	16	12	2	5	51%
MST 15-12MV	0 - 15	12	9.6	7.2	3	7	61%
MST 25-8MV	0 - 25	8	6.4	4.8	4	8	62%
MST 32-6.25MV	0 - 32	6.25	5.0	3.75	5	10	62%
MST 36-5MV	0 - 36	5	4.0	3.0	5	10	63%
MST 55-3.5MV	0 - 55	3.5	2.8	2.1	9	15	64%
MST 75.2.5MV	0 - 75	2.5	2.0	1.5	12	20	64%
MST 100-2MV	0 - 100	2.0	1.6	1.2	15	35	66%
MST 150-1.2MV	0 - 150	1.2	1.0	0.7	20	45	66%

- (1) Suffix V option models are compatible with a particular legacy system.
- (2) MST-MV Models include current monitoring.
MST MVF models include current sharing.
Both MST-MV and -MVF include standard isolation/polarity reversal relays and filter upgrades present in -F suffix models.
Suffix M indicates digital meter, standard on all models (remove M for meterless modules).



Additional Features and Options



Front View



Rear View

Five MST-MV modules with unmetred front panel option shown in RA 55-V Chassis. The MST-ADM Auxiliary Drive Module (Analog Programmer) is installed in the left-most slot. The MST 488-27V Controller is installed in the right-most slot

AC Power Modules



BOP 135-7AC Modules

- 0- 135Vac 0-7A single phase
- 1-4 Modules mount in rack adapter RA 55-A.
- AC Modules may be put in parallel for additional power or configured for 3 phase operation via software commands.

HV DC Power Supply



KLP 200-12A

- 2400W output power from nominal 100 to 240V a-c, 47 to 63Hz mains.
- Analog-controlled, universal input, automatic crossover, 2400-watt, voltage/current stabilizer
- Full rectangular d-c output characteristic within 200V (222V maximum) and 12A (13.3A maximum).
- Drop-in replacement for Sorenson (Elgar, Ametek) DCS 200-12.

Analog Control Modules

Send and receive DC voltage to control and monitor analog controlled devices and power supplies such as Kepco's ATE, BOP, and HSP power supplies. This allows integration of higher power (up to 150kW) powers supplies, special features such as four quadrant power supplies with a smooth cross through zero and linear power amplifiers into a system.

Programming Languages

- SCPI (Standard Commands for Programmable Instruments)
- ABLE (ATLAS Based Language Extension)
- CIIL (Control Interface Intermediate Language)