

## DC LAB POWER SUPPLIES “TOUGH” Series



The research laboratories demand power supplies that are safe to use, rugged in construction and reliable in operation. Our “Tough” series Single and Multiple output DC Power supplies are designed specifically to meet these requirements as per the International Safety Standards for Laboratory, Industrial or Educational application. They provide high regulation and stability with either Digital or Analog Metering.

“T” series DC Power Supplies are unique since they provide the facility to preset both voltage and current limit desired by the user before DC output is turned on. This avoids damaging the circuit under test. Each variable output has “DC ON” switch and operates in the CV or CC mode. The output is ultra clean with low noise and ripple due to linear regulation technique. All the outputs are protected from short circuits and overheating. These convection cooled power supplies avoid using fans for high reliability.

This attractive compact & feature rich “T” series DC Power Supplies not only require minimum bench space but also prevent EMI radiation’s & ensure ruggedness by providing sturdy powder coated metal enclosures.

We take pride in offering reliable, durable and long life products

### Common Features:

- Fully Metallic Construction to stop radiated EMI.
- Compact, Rugged and Thermally Protected Design.
- DC Output ON/OFF on each main output.
- Voltage & Current Output Preset Facility for safety.
- Constant Voltage/ Constant Current Mode
- 3-Digit DPM or Analog Metering of V and A
- High Stability & Close Regulation  $\pm 0.01\%$ .
- Low Ripple & CM and TM Noise  $< 1\text{mV}$
- Overload & Reverse Polarity Protection
- Overheat Protection
- Convection cooled –no fans
- Meets International Safety Standards
- Dual Line Input - 115V or 230V AC  $\pm 10\%$ , Switch Selected – 48-66Hz

### Multi-Output PS Features:

- Series, Parallel Tracking or Independent operation in T Suffix models
- Third Output in TT series is 2.8V to 5.5V variable for 3/5V logic
- Single, Dual, Triple or Quad Output customized option available

## SPECIFICATIONS

<b>Constant Voltage Mode</b>	Output Range Regulation Ripple & Noise Indication	See the table Line $\leq 0.01\%$ $\pm 3\text{mV}$ for 10% change in line Load $\leq 0.01\%$ $\pm 3\text{mV}$ for load change from zero to full load. $\leq 1\text{mV}$ rms max. CV mode LED Green
<b>Constant Current Mode</b>	Output Range Regulation Ripple & Noise Indication	See the table Line $\leq 0.1\%$ $\pm 1\text{mA}$ for 10% change in line Load $\leq 0.1\%$ $\pm 1\text{mA}$ for load change in output voltage from zero to max. o/p voltage. $\leq 2\text{mA}$ rms max. CC mode LED Red
<b>Transient Response</b>		$< 100\mu\text{Sec}$ to within 0.1V for load change from 10% to 90%
<b>Protections</b>		Automatic overload and short circuit protection.
<b>Metering (Two meters)</b>	Digital Standard Analog Optional	Two output meters to read V/A of each output with a Selector switch. In case of dual o/p Vertical P/S Single DPM with V/A Selector Switch (moving coil, Accuracy $\pm 2\%$ of fsd).
<b>Preset Output (TT 3203-D Only)</b>	Output Voltage Output Current Line Regulation Load Regulation Ripple & Noise	4.5V to 5.5V. 5A max. $\leq 5\text{mV}$ $< 15\text{mV}$ $< 2\text{mV}$ rms
<b>Insulation</b>		As per VDE-0678
<b>Input Line Voltage</b>		Switch selected 115V/230V AC $\pm 10\%$ 47 or 63Hz

TRIPLE OUTPUT				
MODEL	DC OUTPUT		DIMENSION (in mm) (W x D x H)	WEIGHT (approx) (in Kgs)
	VOLTAGE	CURRENT		
TT-3203D(S)	0 - 32V	0 - 3A (Dual)	240 x 315 x 165	8.0
	5V	3A		



POWER CONTROLS & CONVERSION DIVISION

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