

DESK TOP SERIES

10-70 Watts
UNIVERSAL INPUT



DESCRIPTION

DT Series is a 10, 20, 30, 50, 70 watt and DTM series, Desk-Top switching power supply. It comes with an IEC AC inlet to accommodate worldwide applications, These power supplies are perfect for low to medium power applications, such as Hard Disk Drives, Modems, Computers and other products that require an external power source.

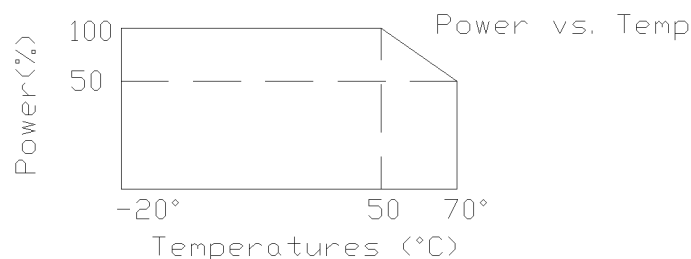
With TRI-MAG leadership in universal power supply technology, we have been able to incorporate our proven design into this space saving desk-top unit.

FEATURES

- EMI FCC Class B
- No Minimum Load Required
- Single and Multiple Output
- Universal input 90VAC to 260VAC

APPLICATIONS

- Computer Peripherals
- Modems
- Hard Disk Drives
- Tape Drives
- Test Instrumentation Product
- Data Acquisition
- Medical



GENERAL SPECIFICATIONS

Line Voltage.....	90VAC to 260VAC
Input Frequency.....	47Hz to 63Hz
Inrush Current (cold).....	Depend on model; 115VAC, 230VAC
Operating Temperature.....	0 to 50°C
Storage Temperature.....	- 20°C to 85°C
Cooling.....	Free Air Convection
Efficiency.....	70% Typical
Holdup Time.....	20ms at 115VAC
Oversvoltage Type.....	Crowbar
Overload Protection.....	Foldback Within 150% rated load
Switching Frequency.....	>30KHz
Safety:	
Designed in full compliance with.....	UL 1950 CSA 22.2 #234 VDE EN60950
EMI.....	Meet FCC class B

MECHANICAL SPECIFICATIONS

All Dimension In Inches (mm)

Tolerance:

±.039" (1mm) except length of cable

Case Size:

DT 410	4.00" x 2.00" x 1.25"	(101.6 x 50.8 x 31.8)
DT 420	5.90" x 2.95" x 1.69"	(150 x 75 x 43)
DT 430	6.50" x 3.15" x 2.25"	(165 x 80 x 57)
DT 450	6.50" x 3.15" x 2.25"	(165 x 80 x 57)
DT 470	7.09" x 3.74" x 2.48"	(180 x 95 x 63)
DTM	4.68" x 2.87" x 1.59"	(119 x 73 x 40.5) (miniature)

Connectors:

See Drawing

Length of cable:

5 ft.

OUTPUT SPECIFICATIONS

Model	Watts	Voltage (Vdc)	Load (A)			Tolerance ±	Ripple & Noise	Regulation	
			Min.	Rate	Peak			Line	Load
DT410-4	10	+5V	0	2.0	4.0	1%	50 mV	1%	3%
DT410-5	10	+12V	0	1.0	1.8	1%	50 mV	1%	3%
DT410-6	10	+24V	0	0.5	0.9	1%	100 mV	1%	3%
DT420-1	20	+5V	0	1.0	2.0	1%	50 mV	1%	3%
		+12V	0	1.0	2.0	5%	100 mV	1%	5%
		-12V	0	0.3	0.5	8%	100 mV	1%	5%
DT420-2	20	+5V	0	1.0	2.0	1%	50 mV	1%	5%
		+12V	0	1.0	2.0	5%	100 mV	1%	5%
DT420-4	20	+5V	0	4.0	-	1%	50 mV	1%	5%
DT430-1	30	+5V	0	2.0	3.0	1%	50mV	1%	3%
		+12V	0	1.5	2.4	5%	120mV	1%	5%
		-12V	0	0.3	0.5	8%	120mV	1%	5%
DT430-3	30	+18V	0	2.0	-	1%	100mV	1%	3%
DT430-5	30	+12V	0	2.5	-	1%	100mV	1%	3%
DT430-8	30	+15V	0	2.0	-	1%	100mV	1%	3%
DT430-6	30	+24V	0	1.5	-	1%	100mV	1%	3%
DT450-1	50	+5V	0	3.0	4.0	1%	50mV	1%	5%
		+12V	0	2.5	3.0	5%	120mV	5%	6%
		-12V	0	0.3	0.5	8%	120mV	8%	5%
DT450-2	50	+5V	0	3.5	4.0	1%	50mV	1%	5%
		+12V	0	2.5	3.0	5%	120mV	5%	6%
DT450-3	50	+18V	0	3.0	3.0	1%	100mV	1%	5%
DT450-4RS	50	+5V	0	8.0	8.0	1%	50mV	1%	5%
DT450-5	50	+12V	0	4.2	4.2	1%	100mV	1%	5%
DT450-6	50	+24V	0	2.3	2.3	1%	100mV	1%	5%
DT450M-6	50	+24V	0	2.3	2.3	1%	100mV	1%	5%
DT470-5	70	+12V	0	6.0	-	1%	100mV	1%	5%
DT470-8	70	+15V	0	5.0	-	1%	100mV	1%	5%
DT470-3	70	+18V	0	4.0	-	1%	100mV	1%	5%
DT470-6	70	+24V	0	3.2	-	1%	150mV	1%	5%
DT470-14	70	+48V	0	1.5	-	1%	200mV	1%	5%

Note: Contact factory for Safety Agency Approved status.

- Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
- The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47 μ F capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to 95% output voltage at rated load and nominal line.
- Efficiency is measured at rated load.

*RS–Remote Sense

*M–Medical Application

MINIATURE DESK TOP SERIES- OUTPUT SPECIFICATIONS

Model	Watts	Voltage (Vdc)	Load (A)			Tolerance ±	Ripple & Noise	Regulation	
			Min.	Rate	Peak			Line	Load
DTM420-4	20	+5V	0	4.0	-	1%	50mV	1%	5%
DTM420-5	20	+12V	0	1.67	2.0	1%	100mV	1%	3%
DTM420-6	20	+24V	0	0.83	1.0	8%	180mV	1%	5%
DTM430-3	30	+18V	0	2.0	-	1%	100mV	1%	3%
DTM430-5	30	+12V	0	2.5	3.0	1%	100mV	1%	3%
DTM430-8	30	+15V	0	2.0	-	1%	100mV	1%	3%
DTM430-6	30	+24V	0	1.3	3.0	1%	180mV	1%	3%
DTM450-3	50	+18V	0	3.0	-	1%	100mV	1%	5%
DTM450-5	50	+12V	0	4.2	7	1%	100mV	1%	5%
DTM450-6	50	+24V	0	2.3	2.7	1%	240mV	1%	5%

Note: Contact factory for Safety Agency Approved status.

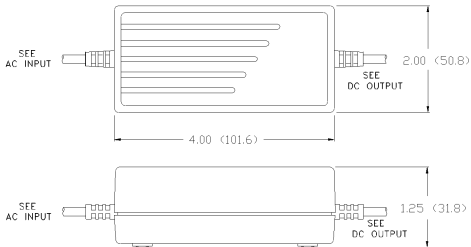
1. Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
4. Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
5. The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47 μ F capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to 95% output voltage at rated load and nominal line.
7. Efficiency is measured at rated load.

DESK TOP SERIES

CONTINUED

MECHANICAL SPECIFICATIONS

All specifications subject to change without notice.



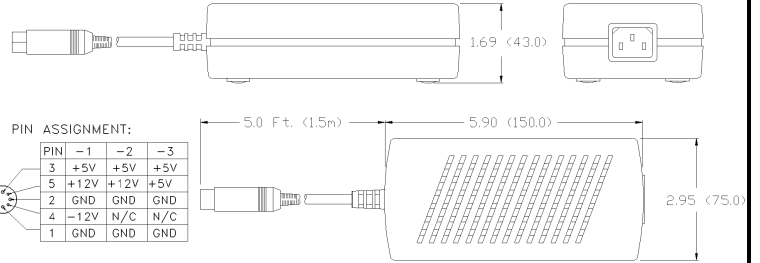
Connectors:
 a) AC input
 North America, Nema 5-15P style 3 wires plug

b) DC output
 DC power jack, $\varnothing 2.1\text{mm}$ socket type, 5 Ft. cable

NOTE:
 1. Dimensions in inch (mm)
 Tolerance: $\pm 0.04"$ (1mm)
 2. Size: $2.0" \times 4.0" \times 1.25"$
 $50.8\text{mm} \times 101.6\text{mm} \times 31.8\text{mm}$

DT 410

MECHANICAL SPECIFICATIONS

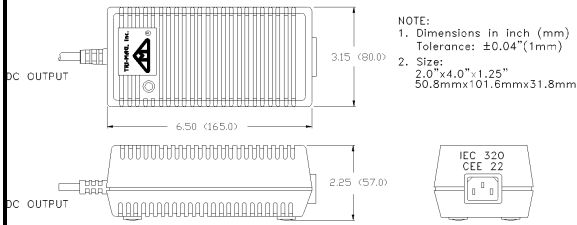


NOTE:
 1. Dimensions shown in INCH (mm) as above.
 Tolerance: $.XX = \pm 0.04"$ (1mm)
 2. Size: $2.95" \times 5.90" \times 1.69"$, $75\text{mm} \times 150\text{mm} \times 43\text{mm}$

DT 420

MECHANICAL SPECIFICATIONS

All specifications subject to change without notice.



NOTE:
 1. Dimensions in inch (mm)
 Tolerance: $\pm 0.04"$ (1mm)
 2. Size: $2.0" \times 4.0" \times 1.25"$
 $50.8\text{mm} \times 101.6\text{mm} \times 31.8\text{mm}$

DC Output Connectors:
 (A) 5 pin at 180° din plug, 5 Ft. cable.

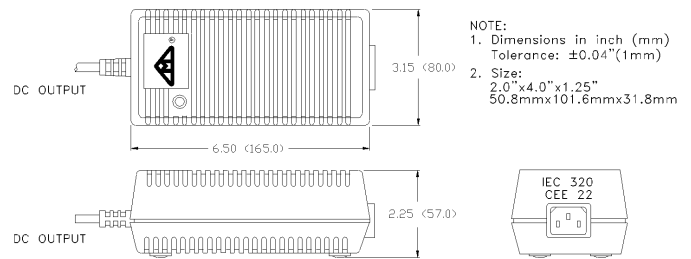
PIN	WIRE COLOR	VOLTAGE
3	RED	+5V
5	YELLOW	+12V
2	WHITE	N/C
4	BROWN	RETURN
1	BLACK	RETURN

(B) DC power jack, $\varnothing 2.1\text{mm}$ socket type, 5 Ft. cable. For single Output.

DT 430

MECHANICAL SPECIFICATIONS

All specifications subject to change without notice.



NOTE:
 1. Dimensions in inch (mm)
 Tolerance: $\pm 0.04"$ (1mm)
 2. Size: $2.0" \times 4.0" \times 1.25"$
 $50.8\text{mm} \times 101.6\text{mm} \times 31.8\text{mm}$

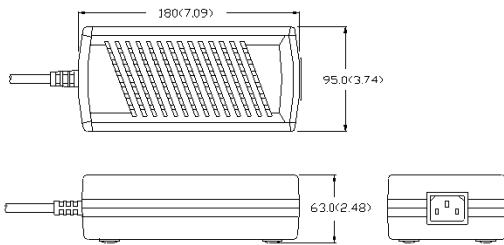
DC Output Connectors:
 (A) 5 pin at 180° din plug, 6 Ft. cable.

PIN	WIRE COLOR	VOLTAGE
DT450-1	RED	+5V
DT450-2	YELLOW	+12V
	WHITE	GND
	BROWN	-12V
	BLACK	GND

(B) DC power jack, $\varnothing 2.1\text{mm}$ socket type, 6 Ft. cable. For Single Output.

DT 450

MECHANICAL SPECIFICATIONS



DC OUTPUT CONNECTOR
 A) 5 PIN AT 180° DIN PLUG 5 FT CABLE

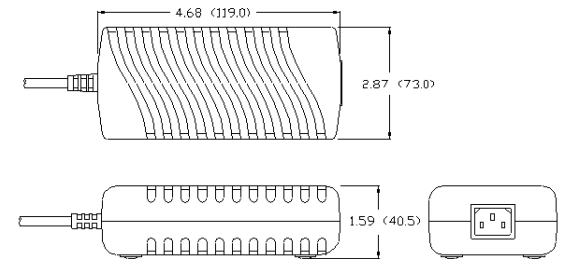
PIN	WIRE COLOR	OUTPUT VOLTAGE
3	RED	+5V
5	YELLOW	+12V
2	WHITE	N/C
4	BROWN	RETURN
1	BLACK	RETURN

B) DC POWER JACK, $\varnothing 2.54\text{mm}$ FEMALE, SOCKET 5 FT CABLE

NOTE: 9.5 ± 0.3

DT 470

MECHANICAL SPECIFICATIONS



DC OUTPUT CONNECTOR

PLUG
 WHITE (+ 24V) GND(GREEN) SHIELD(BLACK)

$\varnothing 2.54$ FEMALE SOCKET

NOTE: 9.5 ± 0.3

CABLE TYPE: UL 2464 2C(18AWG)(34/0.18) +18AWG DRAIN WJRE COLOR BLACK

NOTE: Suffix to Part Number
 A: DC Jack
 B: DIN Connector
 C: Molex Connector
 D: 3 pin

DTM