



TRI-MAG, Inc.
your POWER Specialists

1601 N. CLANCY CT. • VISALIA, CA 93291
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DESK TOP SERIES

10-70 Watts
 UNIVERSAL INPUT



DESCRIPTION

DT Series is a 10, 20, 30, 50, 70 watt 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.

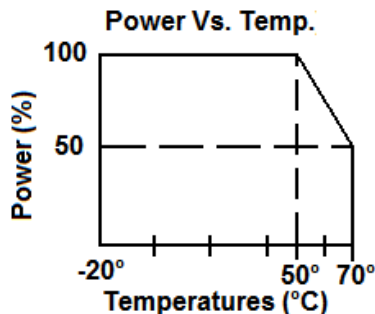
With TRI-MAG leadership in universal power supply technology, we have been able to incorporate our proven design into this space saving desk-top unit.

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



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
 Overvoltage Type..... Crowbar
 Overload Protection..... Foldback
 Within 150% rated load

Safety:

Designed in full compliance with..... UL 1950
 CSA 22.2 #234
 VDE EN60950
 EMI..... Meet FCC class B
 VDE 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)

Connectors:

See Drawing

Length of cable:

5 ft.



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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%
DT410-17	10	+9V	0	1.5	1.8	1%	100 mV	1%	3%
DT410-14	10	+48V	0	0.25	0.25	1%	200 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%	50 mV	1%	3%
		+12V	0	1.5	2.4	5%	120 mV	1%	5%
		-12V	0	0.3	0.5	8%	120 mV	1%	5%
DT430-3	30	+18V	0	2.0	-	1%	100 mV	1%	3%
DT430-5	30	+12V	0	2.5	-	1%	100 mV	1%	3%
DT430-8	30	+15V	0	2.0	-	1%	100 mV	1%	3%
DT430-6	30	+24V	0	1.5	-	1%	100 mV	1%	3%
DT430-4	30	+5V	0	5.0	-	1%	50 mV	1%	3%
DT450-1	50	+5V	0	3.0	4.0	1%	50 mV	1%	5%
		+12V	0	2.5	3.0	5%	120 mV	5%	6%
		-12V	0	0.3	0.5	8%	120 mV	8%	5%
DT450-2	50	+5V	0	3.5	4.0	1%	50 mV	1%	5%
		+12V	0	2.5	3.0	5%	120 mV	5%	6%
DT450-3	50	+18V	0	3.0	3.0	1%	100 mV	1%	5%
DT450-4RS	50	+5V	0	8.0	8.0	1%	50 mV	1%	5%
DT450-5	50	+12V	0	4.2	4.2	1%	100 mV	1%	5%
DT450-6	50	+24V	0	2.3	2.3	1%	100 mV	1%	5%
DT450M-6	50	+24V	0	2.3	2.3	1%	100 mV	1%	5%
DT450-14	50	+48V	0	1.1	-	1%	250 mV	1%	5%
DT470-5	70	+12V	0	6.0	-	1%	100 mV	1%	5%
DT470-8	70	+15V	0	5.0	-	1%	100 mV	1%	5%
DT470-3	70	+18V	0	4.0	-	1%	100 mV	1%	5%
DT470-6	70	+24V	0	3.2	-	1%	150 mV	1%	5%
DT470-14	70	+48V	0	1.5	-	1%	200 mV	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 μF 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



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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, #2.1mm socket type, 5 Ft. cable

NOTE:
 1. Dimensions in inch (mm)
 Tolerance: ± 0.04 "(1mm)
 2. Size: 2.0"x4.0"x1.25"
 50.8mmx101.6mmx31.8mm

DT 410

MECHANICAL SPECIFICATIONS
 All specifications subject to change without notice.

NOTE:
 1. Dimensions in inch (mm)
 Tolerance: ± 0.04 "(1mm)
 2. Size: 2.0"x4.0"x1.25"
 50.8mmx101.6mmx31.8mm

DC Output Connectors:
 (A) 5 pin at 180° din plug, 5 Ft. cable.
 (B) DC power jack, #2.1mm socket type, 5 Ft. cable. For single Output.

DT 430

MECHANICAL SPECIFICATIONS

DC OUTPUT CONNECTOR
 A) 5 PIN AT 180° DIN PLUG 5 FT CABLE
 B) DC POWER JACK, #2.54mm FEMALE, SOCKET 5 FT CABLE

PIN ASSIGNMENT:

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

DT 470

MECHANICAL SPECIFICATIONS

PIN ASSIGNMENT:

PIN	-1	-2	-3
3	+5V	+5V	+5V
5	+12V	+12V	+5V
2	GND	GND	GND
4	-12V	N/C	N/C
1	GND	GND	GND

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

DT 420

MECHANICAL SPECIFICATIONS
 All specifications subject to change without notice.

NOTE:
 1. Dimensions in inch (mm)
 Tolerance: ± 0.04 "(1mm)
 2. Size: 2.0"x4.0"x1.25"
 50.8mmx101.6mmx31.8mm

DC Output Connectors:
 (A) 5 pin at 180° din plug, 6 Ft. cable.
 (B) DC power jack, #2.1mm socket type, 6 Ft. cable. For Single Output.

DT 450