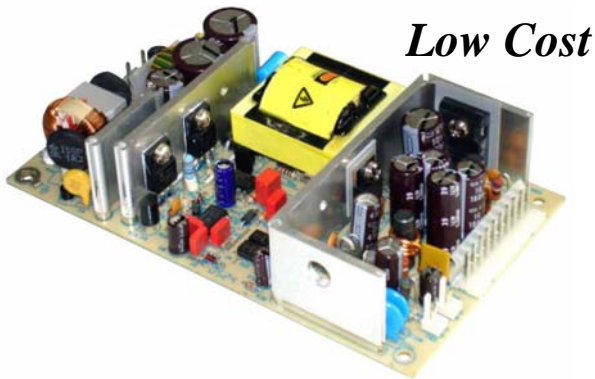


# DY110 SERIES

## 110 Watts For Medical & Industrial Applications

### 160 Watts Peak Current



#### GENERAL SPECIFICATIONS

Input Voltage.....	90VAC to 264VAC
Input Frequency.....	47Hz to 63Hz
Inrush Current (cold).....	Less than 30A at 115VAC, 25°C
Operating Temperature.....	0 to 70°C de-rated 2.5%/°C >50°C
Storage Temperature.....	-40°C to 85°C
Cooling.....	Free Air Convection
Efficiency.....	78% to 87% At rated load and 115Vac
Holdup Time.....	>16ms at 115VAC
Overvoltage Type.....	Latch Off
Overload Protection.....	Auto recovery
Short Circuit Protection.....	Auto recovery
Earth Leakage.....	<300µA
Designed in full compliance with	UL 60950-1, UL60601-1 CSA 22.2 #60950-1,601.1 EN60950-1,EN60601-1
EMI .....	EN55022 "B", EN55011 "B" FCC docket class "B"
EMS.....	EN61000-4-2,-3,-4,-5,-6,-8,-11
Harmonics.....	EN61000-3-2 Class A

#### DESCRIPTION

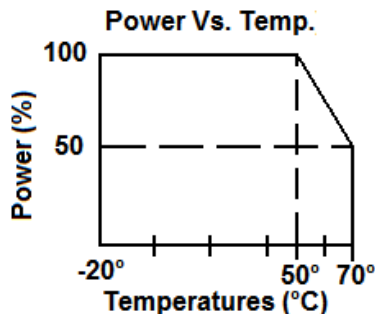
DY110 series is a universal input multiple output power supply. The series is a 110 watts power supply in the size of 3.5" x 6" with a wattage density of 3.8W/in<sup>3</sup>. The efficiency can reach up to 78-87% depending on model.

#### FEATURES

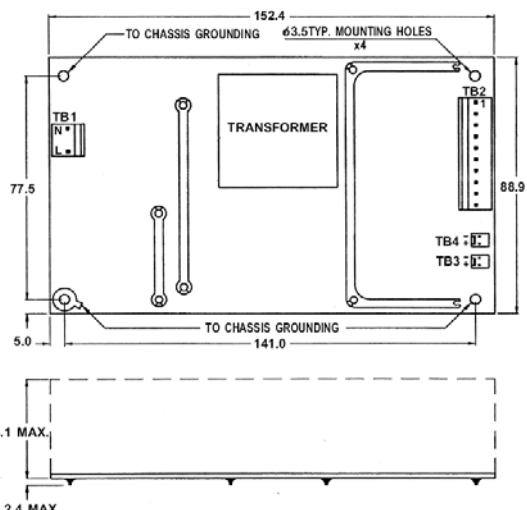
- EMI FCC Class B
- No Minimum Load Required
- Single and Multiple Output
- Universal input 90VAC to 264VAC
- Low Leakage Current

#### APPLICATIONS

- Computer Peripherals
- Telecommunications
- Tape Drives
- Test Instrumentation Product
- Data Acquisition
- Medical & Dental



#### MECHANICAL SPECIFICATIONS



Connector:	TB1—AC input	: Molex 5277-02A or Equivalent
	TB2—DC output	: Molex 5277-10A for Single to Triple Outputs, Molex 5277-12A for Quad Outputs,
	TB3—LED	: Molex 5045-02A or equivalent
	TB4—FAN	: Molex 5045-02A or equivalent

Size: 88.95mm X 152.4mm X 36.1mm, 3.5" X 6" X 1.42"  
 Mounting Holes: 77.5mm X 141, 3.05" X 5.55"



**TRI-MAG, Inc.**  
*your* POWER Specialists

1601 N. CLANCY CT. • VISALIA, CA 93291  
 (559) 651-2222 • FAX (559) 651-0188  
<http://www.tri-mag.com>  
[sales@tri-mag.com](mailto:sales@tri-mag.com)

### OUTPUT SPECIFICATIONS

Model	Watts	Voltage (Vdc)	Load (A)				Voltage Tolerance ±	Ripple & Noise Pk to Pk	Regulation	
			Min.	Rate	Max	Peak			Line	Load
DY110-2	110	+5V	0	7	13	20	±1%	1%	±1%	±3%
		+12V	0	5	7	11	±5%	1%	±1%	±3%
		-12V	0	0.5		-	±5%	1%	±1%	±5%
DY110-19	110	+3.3V	0	10	12	12	±3%	50m vp-p	±1%	±3%
		+5V	0	8	10	10	±5%	1%	±1%	±3%
		+12V	0	2		-	±5%	1%	±1%	±5%
		-12V	0	0.2		-	±5%	1%	±1%	±5%
DY110-6	110	+5V	6	19		-	±1%	1%	±1%	±1%
DY110-7	110	+12V	0	8.5		13	±1%	1%	±1%	±1%
		+5V	0	1		-	±5%	1%	±1%	±1%
DY110-7-1	110	+12V	0	9		13	±1%	1%	±1%	±1%
DY110-8	110	+15V	0	7		10.5	±1%	1%	±1%	±1%
		+5V	0	1		1	±5%	1%	±1%	±1%
DY110-8-1	110	+15V	0	7		10.5	±1%	1%	±1%	±1%
DY110-9	110	+24V	0	4.5		6.5	±1%	1%	±1%	±1%
		+5V	0	1		1	±5%	1%	±1%	±1%
DY110-9-1	110	+24V	0.1	4.5		6.5	±1%	1%	±1%	±1%
DY110-14	110	+48V	0	2.3		3.5	±1%	1%	±1%	±1%
DY110-1	110	+5V	0	6	13	20	±2%	1%	±1%	±3%
		+12V	0	5	7	11	±5%	1%	±1%	±3%
		-12V	0	0.5		-	±5%	1%	±1%	±5%
		-5V	0	0.5		-	±5%	1%	±1%	±3%
DY110-11	110	+5V	0	6	10	15	±2%	1%	±1%	±3%
		+24V	0	2	3	5.5	±5%	1%	±1%	±3%
		+12V	0	2		-	±5%	1%	±1%	±5%
		-12V	0	0.3		-	±5%	1%	±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 ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±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 µF 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.



**TRI-MAG, Inc.**  
*your* POWER Specialists

1601 N. CLANCY CT. • VISALIA, CA 93291  
 (559) 651-2222 • FAX (559) 651-0188  
<http://www.tri-mag.com>  
[sales@tri-mag.com](mailto:sales@tri-mag.com)

**DY110 SERIES 110 WATT — PIN ASSIGNMENTS**

Pin / Model	1	2	3	4	5	6	7	8	9	10	11	12
DY110-1	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	GND	-5V	NC
DY110-2	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	NC		
DY110-6	+5V	+5V	+5V	+5V	GND	GND	GND	GND	NC	NC		
DY110-7	+12V	+12V	+12V	+12V	GND	GND	GND	GND	+5V	NC		
DY110-7-1	+12V	+12V	+12V	+12V	GND	GND	GND	GND	NC	NC		
DY110-8	+15V	+15V	+15V	+15V	GND	GND	GND	GND	+5V	NC		
DY110-8-1	+15V	+15V	+15V	+15V	GND	GND	GND	GND	NC	NC		
DY110-9	+24V	+24V	+24V	+24V	GND	GND	GND	GND	+5V	NC		
DY110-9-1	+24V	+24V	+24V	+24V	GND	GND	GND	GND	NC	NC		
DY110-14	+48V	+48V	+48V	+48V	GND	GND	GND	GND	NC	NC		
DY110-11	+5V	+5V	+5V	GND	GND	GND	+24V	+24V	+12V	GND	-12V	NC
DY110-19	+3.3V	+3.3V	+3.3V	GND	GND	GND	GND	GND	+5V	+5V	+12V	-12V

**ENCLOSURES (optional)**

**ECS**



**EUS**



Our Standard power supplies, the DY090 Series, can be installed into a fully enclosed chassis or in a 'U' shape chassis as an option. These options offer two mounting planes to choose from. The fully enclosed option help to reduce radiated noise.

Example Part Number:  
 DY090-9ECS or DY090-9EUS

\*Note DY040 pictured in chassis