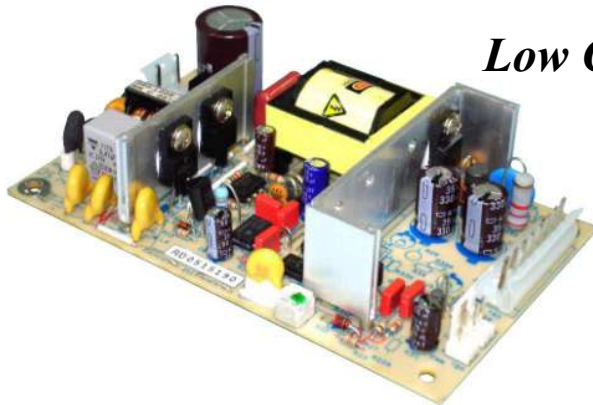


# DYL060 SERIES

## 60 Watts For Medical & Industrial Applications

### 95 Watts Peak Current

*Low Cost*



#### DESCRIPTION

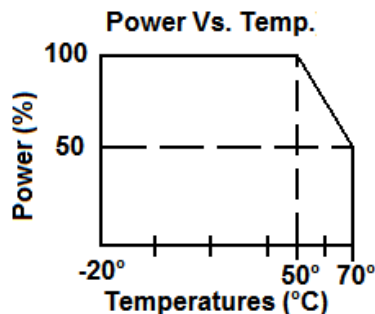
DYL060 series is a universal input multiple output power supply. The series is a 60 Watt power supply in the size of 3" x 5" with a wattage density of 3.1W/in<sup>3</sup>. The efficiency can reach up to 75-86% depending on model.

#### FEATURES

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

#### APPLICATIONS

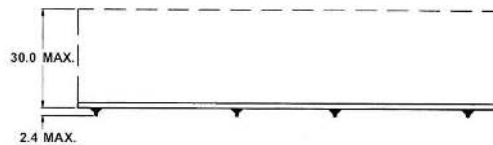
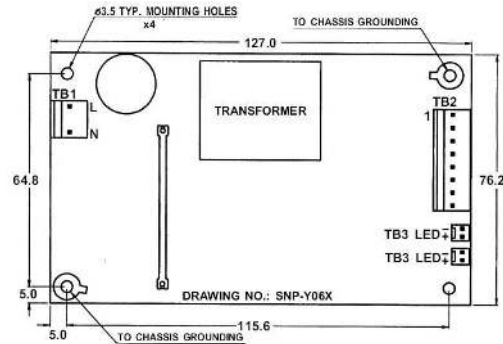
- Computer Peripherals
- Telecommunications
- Tape Drives
- Test Instrumentation Product
- Data Acquisition
- Medical & Dental



#### 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<br>de-rated 2.5%/°C >50°C  |
| Storage Temperature.....         | -40°C to 85°C  |
| Cooling.....                     | Free Air Convection  |
| Efficiency.....                  | 75% to 86%   |
| Holdup Time.....                 | >16ms at 115VAC  |
| Oversvoltage Type.....           | Latch Off  |
| Overload Protection.....         | Auto recovery  |
| Short Circuit Protection.....    | Auto recovery  |
| Earth Leakage.....               | 300µA Max @ 240VAC   |
| Designed in full compliance with | UL 60950-1,<br>UL60601-1<br>CSA 22.2 #60950-1,601.1<br>EN60950-1,EN60601-1 |
| EMI .....                        | EN55022 "B", EN55011 "B"<br>FCC docket class "B"                           |
| EMS.....                         | EN61000-4-2,-3,-4,-5,-6,-8,-11   |

#### MECHANICAL SPECIFICATIONS



- Connector:
- TB1—AC input : Molex 5277-2 or equivalent
  - TB2—DC output : Molex 5273-8 or equivalent
  - TB3—For LED : Molex 5045-2 or equivalent for DYL060-1
  - TB4—For FAN : -3, -7, -7-1, -8, -8-1, 9, -9-1, -19, -01-1
  - TB3—For LED : Molex 5045-2 or equivalent for DYL060-6
  - TB4—For Remote Sense : -18
  - TB3—For LED : Molex 5045-2 or equivalent for DYL060-14

Size: 76.2mm x 127mm x 30mm ; 3" x 5" x 1.18"  
 Mounting Holes: 64.8mm x 115.6mm ; 2.551" x 4.551"

**DYL060 SERIES OUTPUT SPECIFICATIONS**

| Model       | Watts | Voltage (Vdc) | Load (A) |      |     |      | Voltage Tolerance ± | Ripple & Noise Pk to Pk | Regulation |      |
|-------------|-------|---------------|----------|------|-----|------|---------------------|-------------------------|------------|------|
|             |       |               | Min.     | Rate | Max | Peak |                     |                         | Line       | Load |
| DYL060-1    | 60    | +5V           | 0        | 3    |     | 5    | ±1%                 | 1%                      | ±1%        | ±3%  |
|             |       | +12           | 0        | 3    |     | 5    | ±5%                 | 1%                      | ±1%        | ±3%  |
|             |       | -12           | 0        | 0.3  |     | 1    | ±5%                 | 1%                      | ±1%        | ±5%  |
| DYL060-3    | 60    | +5V           | 0        | 3    |     | 5    | ±1%                 | 1%                      | ±1%        | ±3%  |
|             |       | +12V          | 0        | 3.5  |     | 5.5  | ±5%                 | 1%                      | ±1%        | ±3%  |
| DYL060-6    | 60    | +5V           | 0        | 10   |     | 15   | ±1%                 | 1%                      | ±1%        | ±1%  |
| DYL060-7    | 60    | +12V          | 0        | 4.8  |     | 7.5  | ±1%                 | 1%                      | ±1%        | ±1%  |
|             |       | +5V           | 0        | 0.5  |     | 1    | ±5%                 | 1%                      | ±1%        | ±1%  |
| DYL060-7-1  | 60    | +12V          | 0        | 5    |     | 7.5  | ±1%                 | 1%                      | ±1%        | ±1%  |
| DYL060-8    | 60    | +15V          | 0        | 3.8  |     | 6.0  | ±1%                 | 1%                      | ±1%        | ±1%  |
|             |       | +5V           | 0        | 0.5  |     | 1    | ±5%                 | 1%                      | ±1%        | ±1%  |
| DYL060-8-1  | 60    | +15V          | 0        | 4.0  |     | 6.0  | 1%                  | 1%                      | ±1%        | ±1%  |
| DYL060-9    | 60    | +24V          | 0.1      | 2.4  |     | 3.8  | ±1%                 | 1%                      | ±1%        | ±1%  |
|             |       | +5V           | 0        | 0.5  |     | 1    | ±5%                 | 1%                      | ±1%        | ±1%  |
| DYL060-9-1  | 60    | +24V          | 0.1      | 2.7  |     | 3.8  | ±1%                 | 1%                      | ±1%        | ±1%  |
| DYL060-14   | 60    | +48V          | 0        | 1.25 |     | 2    | ±1%                 | 1%                      | ±1%        | ±1%  |
| DYL060-18   | 60    | +3.3V         | 0        | 10   |     | 18   | ±1%                 | 50mv                    | ±1%        | ±3%  |
| DYL060-19   | 60    | +3.3V         | 0        | 5    | 5   | 8    | ±1%                 | 50mv                    | ±1%        | ±3%  |
|             |       | +5V           | 0        | 4    | 6   | 7    | ±5%                 | 1%                      | ±1%        | ±3%  |
|             |       | +12V          | 0        | 1    |     | 2    | ±5%                 | 1%                      | ±1%        | ±5%  |
|             |       | -12V          | 0        | 0.6  |     | 1    | ±5%                 | 1%                      | ±1%        | ±5%  |
| DYL060-01-1 | 60    | +5V           | 0        | 3    |     | 5    | ±1%                 | 1%                      | ±1%        | ±3%  |
|             |       | +12V          | 0        | 3    |     | 5    | ±5%                 | 1%                      | ±1%        | ±3%  |
|             |       | -12V          | 0        | 0.3  |     | 1    | ±5%                 | 1%                      | ±1%        | ±5%  |
|             |       | -5V           | 0        | 0.3  |     | 1    | ±5%                 | 1%                      | ±1%        | ±5%  |

Note: Contact factory for Safety Agency Approved status.

- Each output can provide up to peak load temporarily. Continuous operation at greater 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 ±10% of input voltage from nominal line at rated load.
- Load regulation is defined by changing ±40% of measured output load from 60% rated load.
- The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope. Each output is terminated 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 when the main output drops down to 95% output voltage at rated load and nominal line.
- Efficiency is measured at rated load.

**DYL060 SERIES 60 WATT— PIN ASSIGNMENT**

| Model \ Pin | 1     | 2     | 3     | 4   | 5    | 6    | 7    | 8    |
|-------------|-------|-------|-------|-----|------|------|------|------|
| DYL060-1    | +5V   | +5V   | GND   | GND | +12V | +12V | -12V | NC   |
| DYL060-3    | +5V   | +5V   | GND   | GND | +12V | +12V | NC   | NC   |
| DYL060-6    | +5V   | +5V   | +5V   | +5V | GND  | GND  | GND  | GND  |
| DYL060-7    | +12V  | +12V  | +12V  | GND | GND  | GND  | GND  | +5V  |
| DYL060-7-1  | +12V  | +12V  | +12V  | GND | GND  | GND  | GND  | NC   |
| DYL060-8    | +15V  | +15V  | +15V  | GND | GND  | GND  | GND  | +5V  |
| DYL060-8-1  | +15V  | +15V  | +15V  | GND | GND  | GND  | GND  | NC   |
| DYL060-9    | +24V  | +24V  | +24V  | GND | GND  | GND  | GND  | +5V  |
| DYL060-9-1  | +24V  | +24V  | +24V  | GND | GND  | GND  | GND  | NC   |
| DYL060-14   | +48V  | +48V  | +48V  | GND | GND  | GND  | GND  | NC   |
| DYL060-18   | +3.3V | +3.3V | +3.3V | GND | GND  | GND  | GND  | GND  |
| DYL060-19   | +3.3V | +3.3V | GND   | GND | +5V  | +5V  | -12V | +12V |
| DYL060-01-1 | +5V   | +5V   | GND   | GND | +12V | +12V | -12V | -5V  |

**ENCLOSURES (optional)**
**EUS**

**ECS**


Our Standard power supplies, the DYL060 Series, can be installed into a fully enclosed chassis or in a 'U' shape chassis as an option. These options offer two mounting planes. The fully enclosed option helps to reduce radiated noise.

Example Part Number:  
 DYL060-9ECS or DYL060-9EUS

\*Note DY040 pictured in chassis