

SDC40P SERIES 40 WATT DC TO DC CONVERTER

OUTPUT SPECIFICATIONS

| | |
|--------------------------|--|
| Output Voltage: | See Rating Chart |
| Output Current: | See Rating Chart |
| Total Output Power: | 40 watts maximum |
| Ripple and Noise: | 1% peak to peak max. |
| Overvoltage Protection: | Set at 112-132% of its nominal output voltage |
| Overcurrent Protection: | All outputs protected to short circuit conditions |
| Temperature Coefficient: | All outputs, $\pm 0.04\%$ / °C maximum |
| Transient Response: | Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change |

GENERAL SPECIFICATIONS

| | |
|-----------------------|------------------------------------|
| Switching Frequency: | 36kHz \pm 5kHz |
| Efficiency: | 70% at full load |
| Line Regulation: | $\pm 0.5\%$ maximum at full load |
| Withstand Voltage: | 1000 VDC from input to output |
| MTBF (25° C ambient): | 600,000 hours minimum at full load |

ENVIRONMENTAL SPECIFICATIONS

| | |
|------------------------|--|
| Operating Temperature: | 0° to +70° C |
| Storage Temperature: | -40° C to +85° C |
| Relative Humidity: | 5% to 95% non-condensing |
| Derating: | Derate at 100% at +50°C linearly to 50% +70° |

FEATURES

- ◆ Low Cost
- ◆ Small, light weight
- ◆ Three wide input ranges, 10-30 VDC, 20-60 VDC & 30-90 VDC
- ◆ Overvoltage protection
- ◆ Overcurrent protection
- ◆ 100% burn-in

DESCRIPTION

The SDC40P series of DC to DC converters provide up to 40 watts of continuous output power. Available in three standard input ranges 10-30 VDC, 20-60 VDC and 30-90 VDC, they are ideal for a variety of applications including telecoms, process control, portable equipment and vehicle-mounted instrumentation. All units are available in compact "open PCB" or "enclosed" mechanical formats.

INPUT SPECIFICATION

| | |
|----------------|---|
| Input Voltage: | 10 to 30 VDC (SDC40P "L") 20 to 60 VDC (SDC40P "M") 30 to 90 VDC (SDC40P "H") |
| Input Current: | 2.5A (rms) for 24 VDC 1.3A (rms) for 48VDC 0.84A (rms) for 72 VDC |

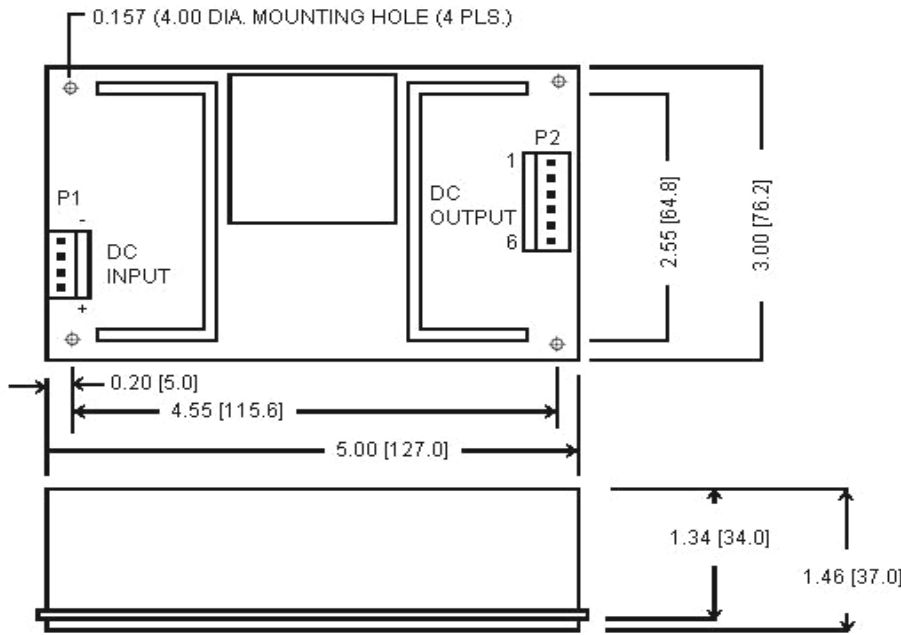


OUTPUT VOLTAGE/CURRENT RATING CHART

| Model | Output #1 | | | | Output #2 | | | | Output #3 | | | | Max. Power |
|----------|-----------|------|------|------|-----------|------|------|------|-----------|------|------|------|------------|
| | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. | |
| SDC40P10 | 5V | 0A | 8.0A | 2% | (N/A) | | | | (N/A) | | | | 40W |
| SDC40P12 | 12V | 0A | 3.5A | 1% | (N/A) | | | | (N/A) | | | | 40W |
| SDC40P13 | 15V | 0A | 3A | 1% | (N/A) | | | | (N/A) | | | | 40W |
| SDC40P14 | 24V | 0A | 2A | 1% | (N/A) | | | | (N/A) | | | | 40W |
| SDC40P23 | +5V | 0.5A | 3A | 3% | +12V | 0.2A | 2A | 5% | (N/A) | | | | 40W |
| SDC40P24 | +5V | 0.5A | 3A | 3% | +15V | 0.2A | 2A | 5% | (N/A) | | | | 40W |
| SDC40P25 | +5V | 0.5A | 3A | 3% | +24V | 0.1A | 1A | 5% | (N/A) | | | | 40W |
| SDC40P30 | +5V | 0.5A | 3A | 3% | +12V | 0.2A | 2A | 5% | -5V | 0A | 0.8A | 5% | 40W |
| SDC40P31 | +5V | 0.5A | 3A | 3% | +12V | 0.2A | 2A | 5% | -12V | 0A | 0.8A | 5% | 40W |
| SDC40P32 | +5V | 0.5A | 3A | 3% | +15V | 0.2A | 2A | 5% | -15V | 0A | 0.8A | 5% | 40W |
| SDC40P33 | +5V | 0.5A | 3A | 3% | +15V | 0.2A | 2A | 5% | -12V | 0A | 0.8A | 5% | 40W |
| SDC40P39 | +5V | 0.5A | 3A | 3% | +24V | 0.1A | 1A | 5% | -12V | 0A | 0.8A | 5% | 40W |

- Notes: (1) All multi-output units may be operated at no load without damage; no load output tolerance increases to 10%.
 (2) Suffix codes for mechanical format and input range is as follows: PD40PXXYZ: "XX" is the model code from the above table; "Y" is the input range (L= 10-30 VDC, M = 20-60 VDC, H=30-90 VDC); "Z" is the mechanical format (A = open PCB, C = enclosed) i.e. PD40P31MC
 (3) "L" series is suitable only for 75% of the above stated maximum output power.

MECHANICAL SPECIFICATIONS



Notes:

- Dimensions shown in inch (cm)
- Tolerance 0.02 (0.5) maximum
- Input connector mates with Molex housing 09-50-3041 and Molex 2878 series crimp terminal
- Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal
- Approx. Weight: 220 grams (PCB format)
- Mechanical details of L-bracket and enclosed format available upon request

PIN CHART

| MODEL | PIN | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|----------|-----------|-----------|-----------|---------------|---------------|-----------|
| SDC40P10 | SDC40P12 | Output #1 | Output #1 | Output #1 | Return | Return | Return |
| SDC40P13 | SDC40P14 | Output #1 | Output #1 | Output #1 | Return | Return | Return |
| SDC40P23 | SDC40P24 | Output #2 | Output #1 | Output #1 | Common Return | Common Return | N.C. |
| SDC40P25 | | | | | | | |
| SDC40P30 | SDC40P31 | Output #2 | Output #1 | Output #1 | Common Return | Common Return | Output #3 |
| SDC40P32 | SDC40P33 | | | | | | |
| SDC40P39 | | | | | | | |

Note: All data are subject to change without notice