



Size: 2in x 1in x 0.40in (50.8mm x 25.4mm x 10.2mm)

FEATURES

- 2:1 or 4:1 Input Voltage Range
- Optional Heatsink
- 1600VDC Isolation
- 6 Sided Shielding
- Remote On/Off
- Low Standby Power
- No Minimum Load Required
- Over Voltage, Over Load, Over Temperature, and Short Circuit Protection
- Under Voltage Protection
- IEC/ UL/ EN62368-1 Safety Approvals

APPLICATIONS

- Automation
- Datacom
- IPC
- Industrial
- Measurement
- Telecom

DESCRIPTION

The CRE(W)40 series of DC/DC converters offers 40 watts of output power in a compact 2" x 1" x 0.40" through hole package. This series consists of both single and dual output models with a 2:1 or 4:1 input voltage range. Notable features include six sided shielding, 1600VDC isolation, low standby power, and optional heatsink. The CRE(W)40 series also has over voltage, over load, over temperature, and short circuit protection, as well as IEC/ UL/ EN62368-1 safety approvals.

MODEL SELECTION TABLE

Single Output Models

| Model Number | Input Voltage Range | Output Voltage | Output Current | No Load Input Current | Efficiency | Maximum Capacitive Load | Output Power |
|--------------|---------------------|----------------|----------------|-----------------------|------------|-------------------------|----------------|
| CRE40-12S03 | 12VDC (9~18VDC) | 3.3VDC | 12200mA | 20mA | 89% | 22000µF | Up to 40 Watts |
| CRE40-12S05 | | 5VDC | 8000mA | | 90% | 12000µF | |
| CRE40-12S12 | | 12VDC | 3333mA | | 91% | 2000µF | |
| CRE40-12S15 | | 15VDC | 2666mA | | 91% | 1300µF | |
| CRE40-12S24 | | 24VDC | 1666mA | | 90% | 490µF | |
| CRE40-24S03 | 24VDC (18~36VDC) | 3.3VDC | 12200mA | 15mA | 89.5% | 22000µF | Up to 40 Watts |
| CRE40-24S05 | | 5VDC | 8000mA | | 92% | 12000µF | |
| CRE40-24S12 | | 12VDC | 3333mA | | 92% | 2000µF | |
| CRE40-24S15 | | 15VDC | 2666mA | | 93% | 1300µF | |
| CRE40-24S24 | | 24VDC | 1666mA | | 91% | 490µF | |
| CREW40-24S03 | 24VDC (9~36VDC) | 3.3VDC | 12200mA | 15mA | 89.5% | 22000µF | Up to 40 Watts |
| CREW40-24S05 | | 5VDC | 8000mA | | 92% | 12000µF | |
| CREW40-24S12 | | 12VDC | 3333mA | | 92% | 2000µF | |
| CREW40-24S15 | | 15VDC | 2666mA | | 93% | 1300µF | |
| CREW40-24S24 | | 24VDC | 1666mA | | 91% | 490µF | |
| CREW40-24S48 | | 48VDC | 833mA | | 91% | 120µF | |
| CREW40-24S53 | | 53VDC | 755mA | | 91.5% | 100µF | |
| CRE40-48S03 | 48VDC (36~75VDC) | 3.3VDC | 12200mA | 10mA | 90% | 22000µF | Up to 40 Watts |
| CRE40-48S05 | | 5VDC | 8000mA | | 91% | 12000µF | |
| CRE40-48S12 | | 12VDC | 3333mA | | 92% | 2000µF | |
| CRE40-48S15 | | 15VDC | 2666mA | | 92% | 1300µF | |
| CRE40-48S24 | | 24VDC | 1666mA | | 92% | 490µF | |
| CREW40-48S03 | 48VDC (18~75VDC) | 3.3VDC | 12200mA | 10mA | 90% | 22000µF | Up to 40 Watts |
| CREW40-48S05 | | 5VDC | 8000mA | | 91% | 12000µF | |
| CREW40-48S12 | | 12VDC | 3333mA | | 92% | 2000µF | |
| CREW40-48S15 | | 15VDC | 2666mA | | 92% | 1300µF | |
| CREW40-48S24 | | 24VDC | 1666mA | | 92% | 490µF | |
| CREW40-48S48 | | 48VDC | 833mA | | 92% | 120µF | |
| CREW40-48S53 | | 53VDC | 755mA | | 92% | 100µF | |

MODEL SELECTION TABLE

Dual Output Models

| Model Number | Input Voltage Range | Output Voltage | Output Current | No Load Input Current | Efficiency | Maximum Capacitive Load | Output Power |
|--------------|---------------------|----------------|----------------|-----------------------|------------|-------------------------|----------------|
| CRE40-12D12 | 12VDC (9~18VDC) | ±12VDC | ±1666mA | 20mA | 90% | ±980µF | Up to 40 Watts |
| CRE40-12D15 | | ±15VDC | ±1333mA | | 90% | ±630µF | |
| CRE40-12D24 | | ±24VDC | ±833mA | | 91% | ±250µF | |
| CRE40-24D12 | 24VDC (18~36VDC) | ±12VDC | ±1666mA | 15mA | 91% | ±980µF | Up to 40 Watts |
| CRE40-24D15 | | ±15VDC | ±1333mA | | 91% | ±630µF | |
| CRE40-24D24 | | ±24VDC | ±833mA | | 91% | ±250µF | |
| CREW40-24D12 | 24VDC (9~36VDC) | ±12VDC | ±1666mA | 15mA | 91% | ±980µF | Up to 40 Watts |
| CREW40-24D15 | | ±15VDC | ±1333mA | | 91% | ±630µF | |
| CREW40-24D24 | | ±24VDC | ±833mA | | 91% | ±250µF | |
| CRE40-48D12 | 48VDC (36~75VDC) | ±12VDC | ±1666mA | 10mA | 91% | ±980µF | Up to 40 Watts |
| CRE40-48D15 | | ±15VDC | ±1333mA | | 91% | ±630µF | |
| CRE40-48D24 | | ±24VDC | ±833mA | | 92% | ±250µF | |
| CREW40-48D12 | 48VDC (18~75VDC) | ±12VDC | ±1666mA | 10mA | 91% | ±980µF | Up to 40 Watts |
| CREW40-48D15 | | ±15VDC | ±1333mA | | 91% | ±630µF | |
| CREW40-48D24 | | ±24VDC | ±833mA | | 92% | ±250µF | |

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input, and Full Load unless otherwise noted.
We reserve the right to change specifications based on technological advances.

| SPECIFICATION | TEST CONDITIONS | | Min | Typ | Max | Unit |
|----------------------------------|--|------------------|----------------|-------------|-------|-------|
| INPUT SPECIFICATIONS | | | | | | |
| Operating Input Voltage Range | 2:1 | 12Vin (nom) | 9 | 12 | 18 | VDC |
| | | 24Vin (nom) | 18 | 24 | 36 | |
| | | 48Vin (nom) | 36 | 48 | 75 | |
| | 4:1 (W) | 24Vin (nom) | 9 | 24 | 36 | VDC |
| | | 48Vin (nom) | 18 | 48 | 75 | |
| | | Start-Up Voltage | 2:1 | 12Vin (nom) | | |
| 24Vin (nom) | | 18 | | | | |
| 48Vin (nom) | | 36 | | | | |
| Shutdown Voltage | 4:1 (W) | 24Vin (nom) | | 9 | VDC | |
| | | 48Vin (nom) | | 18 | | |
| | 2:1 | 12Vin (nom) | 7 | 8 | 8.8 | VDC |
| | | 24Vin (nom) | 15 | 16 | 17.5 | |
| Input Surge Voltage | 1 second, max. | 12Vin (nom) | | | 25 | VDC |
| | | 24Vin (nom) | | | 50 | |
| | 1 second, max. | 48Vin (nom) | | | 100 | VDC |
| | | 24Vin (nom) | | | 50 | |
| 48Vin (nom) | | | 100 | | | |
| Input Filter | | | Pi Type | | | |
| OUTPUT SPECIFICATIONS | | | | | | |
| Output Voltage | | | See Table | | | |
| Voltage Accuracy | | | -1.0 | | +1.0 | % |
| Line Regulation | Low Line to High Line at Full Load | | -0.2 | | +0.2 | % |
| Load Regulation | No Load to Full Load | | Single | | +0.3 | % |
| | | | Dual | | +0.5 | |
| Voltage Adjustability | Single Output | | Other | | +10 | % |
| | | | 15Vout, 24Vout | | +20 | |
| Cross Regulation | Asymmetrical load 25%/100% FL | | Dual | | +5.0 | % |
| Output Power | | | | | 40 | W |
| Output Current | | | See Table | | | |
| Maximum Capacitive Load | | | See Table | | | |
| Ripple & Noise | Measured by 20MHz bandwidth with a 1µF/100V X7R MLCC | | 3.3Vout, 5Vout | | 75 | mVp-p |
| | | | 12Vout, 15Vout | | 100 | |
| | | | 24Vout | | 150 | |
| | | | 48Vout, 53Vout | | 300 | |
| Transient Response Recovery Time | 25% Load Step Change | | | 250 | | µs |
| Start-Up Time | Constant Resistive Load | | | 30 | 60 | ms |
| | Remote ON/OFF | | | | | |
| Temperature Coefficient | | | -0.02 | | +0.02 | %/°C |

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input, and Full Load unless otherwise noted.
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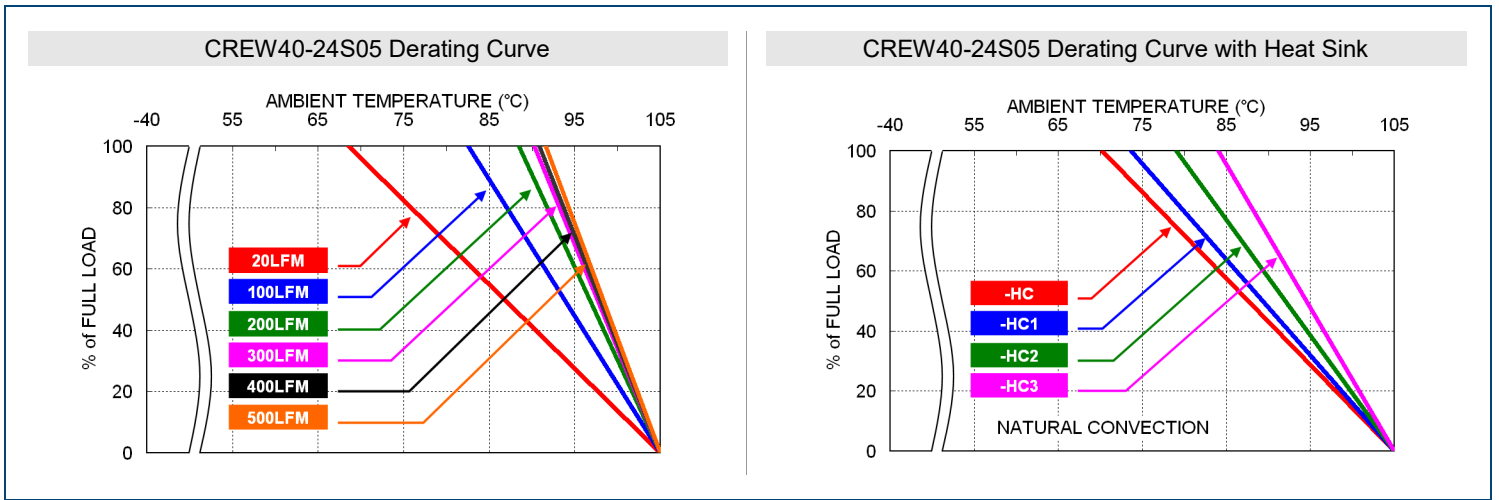
| SPECIFICATION | TEST CONDITIONS | | Min | Typ | Max | Unit |
|--|-----------------------------------|-------------------------------------|--|-----------|------|-----------------------------------|
| REMOTE ON/OFF CONTROL⁽¹⁾ | | | | | | |
| Positive Logic (Standard) | DC-DC ON | | Open or 3~12VDC | | | |
| | DC-DC OFF | | Short or 0~1.2VDC | | | |
| Negative Logic (Optional) | DC-DC ON | | Short or 0~1.2VDC | | | |
| | DC-DC OFF | | Open or 3~12VDC | | | |
| Input Current of CTRL Pin | | | -0.5 | | 1 | mA |
| Remote OFF Input Current | | | | 3 | | mA |
| PROTECTION | | | | | | |
| Short Circuit Protection | | | Continuous, automatic recovery | | | |
| Over Load Protection | % of Iout rated; Hiccup mode | | | 150 | | % |
| Over Voltage Protection | Zener Diode Clamp | 3.3Vout | | 3.9 | | VDC |
| | | 5Vout | | 6.2 | | |
| | | 12Vout | | 15 | | |
| | | 15Vout | | 20 | | |
| | | 24Vout | | 30 | | |
| | | 48Vout | | 60 | | |
| | | 53Vout | | 63 | | |
| Over Temperature Protection | | | | 115 | | °C |
| ENVIRONMENTAL SPECIFICATIONS | | | | | | |
| Operating Ambient Temperature | With derating | | -40 | | +105 | °C |
| Storage Temperature | | | -55 | | +125 | °C |
| Maximum Case Temperature | | | | | 105 | °C |
| Relative Humidity | | | 5 | | 95 | %RH |
| Thermal Impedance | Natural Convection | Without heatsink | | 10.8 | | °C/W |
| | | With heatsink | HC | | 10.3 | |
| | | | HC1 | | 9.3 | |
| | | | HC2 | | 7.7 | |
| | | | HC3 | | 6.2 | |
| Thermal Shock | | | MIL-STD-810F | | | |
| Shock | | | MIL-STD-810F | | | |
| Vibration | | | MIL-STD-810F | | | |
| MTBF | MIL-HDBK-217F, Full Load | | | 1,245,000 | | Hours |
| GENERAL SPECIFICATIONS | | | | | | |
| Efficiency | | | See Table | | | |
| Switching Frequency | | | 225 | 250 | 275 | kHz |
| Isolation Voltage | 1 Minute | Input to Output | 1600 | | | VDC |
| | | Input (Output) to Case | 1600 | | | |
| Isolation Resistance | 500VDC | | 1 | | | GΩ |
| Isolation Capacitance | | | | | 1500 | pF |
| PHYSICAL SPECIFICATIONS | | | | | | |
| Weight | | | 1.2oz (34g) | | | |
| Dimensions (L x W x H) | | | 2in x 1in x 0.40in (50.8mm x 25.4mm x 10.2mm) | | | |
| Case Material | | | Copper | | | |
| Base Material | | | FR4 PCB | | | |
| Potting Material | | | Silicone (UL94 V-0) | | | |
| Shielding | | | Six-Sided | | | |
| SAFETY CHARACTERISTICS | | | | | | |
| Safety Approvals | | | IEC/UL/EN62368-1 ⁽³⁾ | | | CB: UL(Demco) Class A, Class B |
| EMI | EN55032, With external components | | | | | |
| EMS | EN55035 | | | | | |
| ESD | EN61000-4-2 | Air ±8kV and Contact ±6kV | | | | Perf. Criteria A |
| Radiated Immunity | EN61000-4-3 | 10V/m | | | | Perf. Criteria A |
| Fast Transient ⁽²⁾ | EN61000-4-4 | ±2kV | | | | Perf. Criteria A |
| Surge ⁽²⁾ | EN61000-4-5 | ±2kV | | | | Perf. Criteria A |
| Conducted Immunity | EN61000-4-6 | 10Vr.m.s | | | | Perf. Criteria A |
| Power Frequency Magnetic Field | EN61000-4-8 | 100A/m continuous; 1000A/m 1 second | | | | Perf. Criteria A |

NOTES

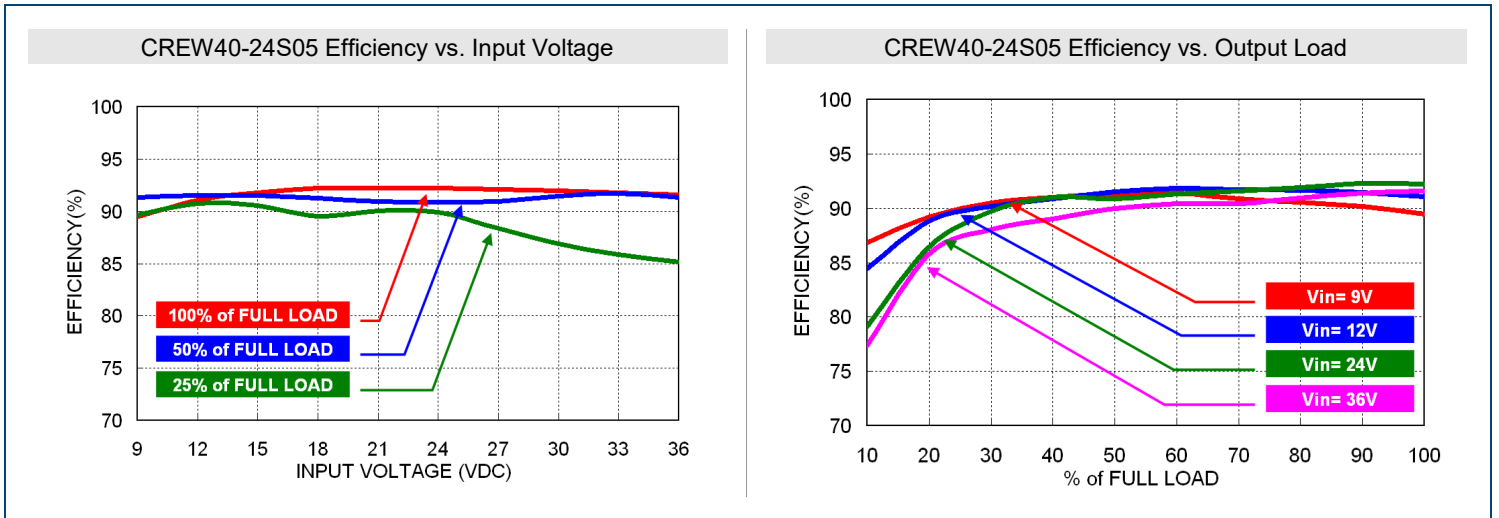
1. Referred to -Vin pin
2. 12Vin: with 2pcs of aluminum electrolytic capacitor (Nippon chemi-con KY series, 220 μ F/100V) and a TVS (SMDJ36A, 36V, 3000Watt peak pulse power) in parallel.
24Vin: With 2pcs of aluminum electrolytic capacitor (Nippon chemi-con KY series, 220 μ F/100V) and a TVS (SMDJ58A, 58V, 3000Watt peak pulse power) in parallel.
48Vin: With 2 pcs of aluminum electrolytic capacitor INippon chemi-con KY series, 220 μ F/100V) and a TVS (SMDJ120A, 120V, 3000Watt peak pulse power) in parallel.
3. This product is Listed to applicable standards and requirements by UL.

**Due to advances in technology, specifications subject to change without notice.*

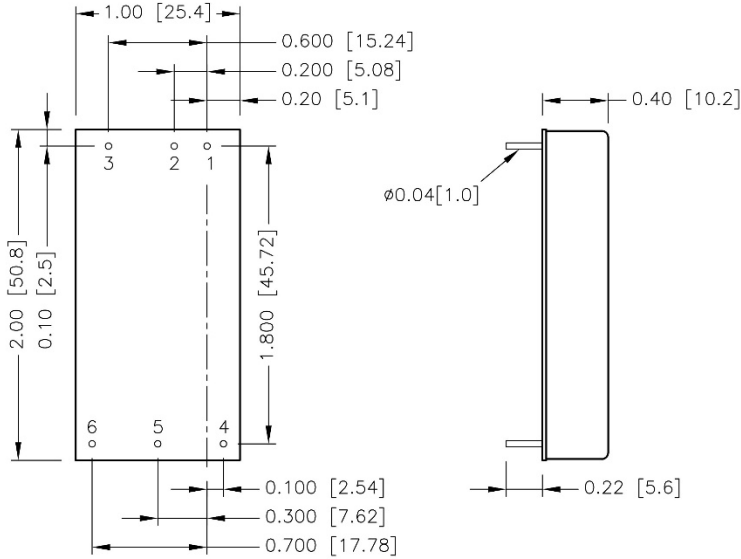
DERATING CURVES



EFFICIENCY GRAPHS



MECHANICAL DRAWINGS



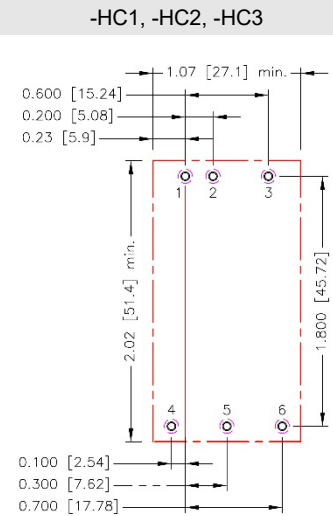
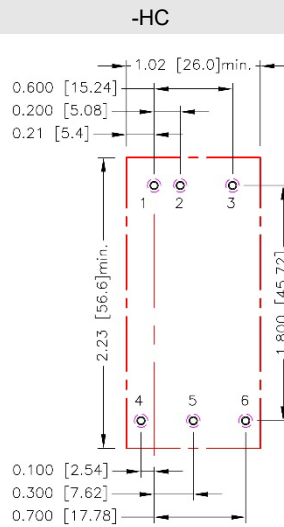
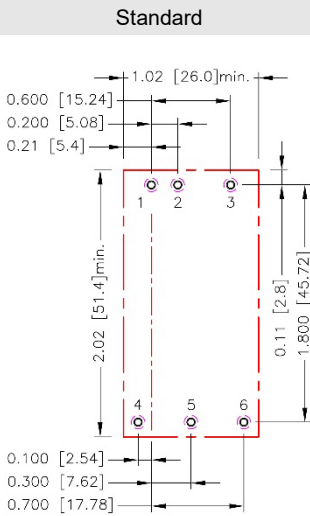
| PIN Connection | | |
|----------------|--------|-------|
| PIN | SINGLE | DUAL |
| 1 | +Vin | +Vin |
| 2 | -Vin | -Vin |
| 3 | Ctrl | Ctrl |
| 4 | +Vout | +Vout |
| 5 | -Vout | Com |
| 6 | Trim | -Vout |

BOTTOM VIEW

Notes:

- All dimensions in inch [mm]
Tolerance: x.xx ±0.02 [x.xx±0.5]
x.xxx±0.010 [x.xx±0.25]
- Pin dimension tolerance ±0.004 [0.10]

RECOMMENDED PAD LAYOUT

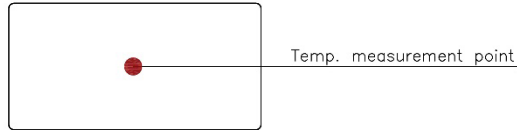


All dimensions in inch[mm]
Pad size (lead free recommended)
Through hole 1.2.3.4.5.6: $\Phi 0.051$ [1.30]
Top view pad 1.2.3.4.5.6: $\Phi 0.064$ [1.63]
Bottom view pad 1.2.3.4.5.6: $\Phi 0.102$ [2.60]

THERMAL CONSIDERATIONS

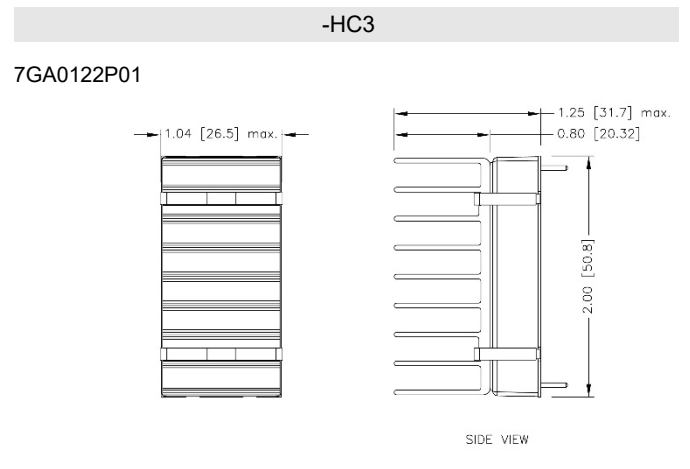
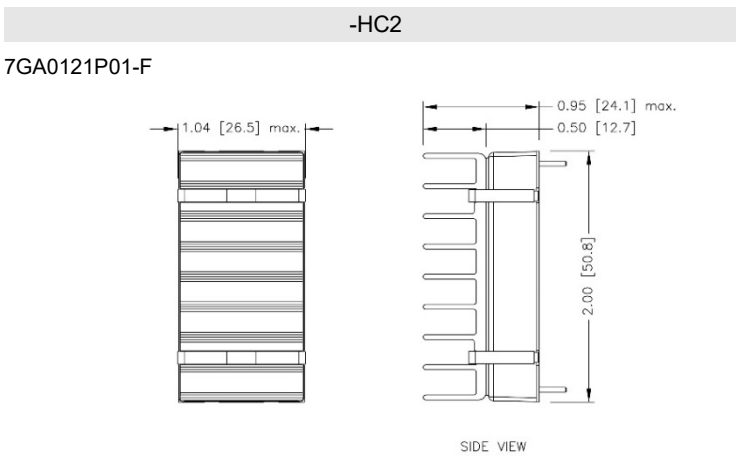
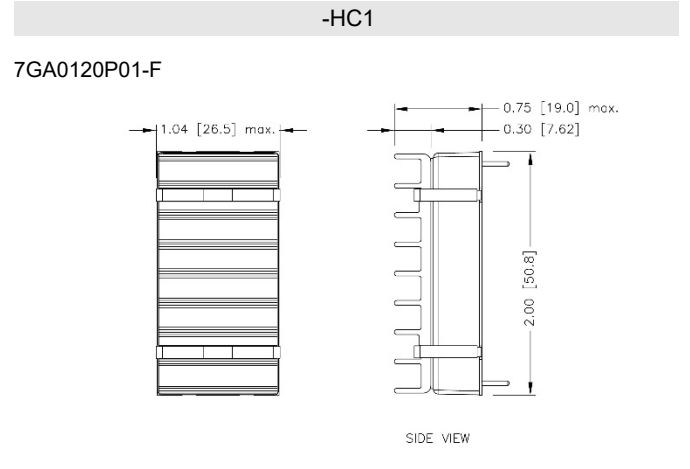
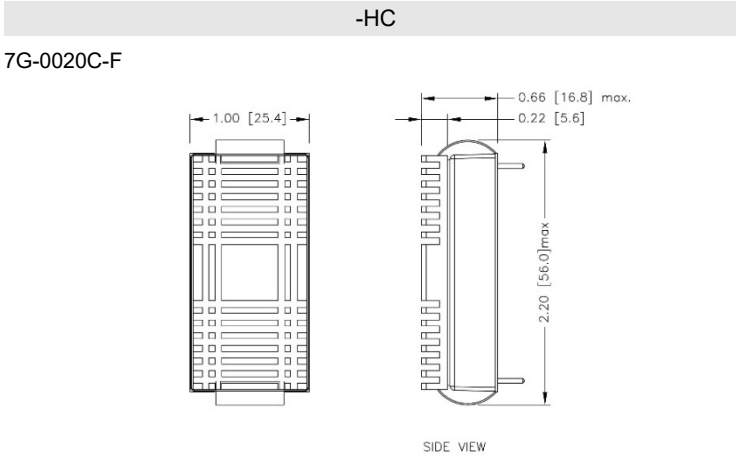
The power module operates in a variety of thermal environments. However, sufficient cooling should be provided to help ensure reliable operation of the unit. Heat is removed by conduction, convection, and radiation to the surrounding environment. Proper cooling can be verified by measuring the point as the figure below. The temperature at this location should not exceed "Maximum case temperature". When operating, adequate cooling must be provided to maintain the test point temperature at or below "Maximum case temperature". You can limit this Temperature to a lower value for extremely high reliability.

- Thermal test condition with vertical direction by natural convection (20LFM).



HEATSINK OPTIONS

All dimensions in inch [mm]
Tolerance: x.xx ±0.02 [x.x±0.5]
x.xxx±0.010 [x.xx±0.25]



FUSE CONSIDERATIONS

This power module is not internally fused. An input line fuse must always be used.

This encapsulated power module can be used in a wide variety of applications, ranging from simple stand-alone operation to an integrated part of sophisticated power architecture.

To maximize flexibility, internal fusing is not included; however, to achieve maximum safety and system protection, always use an input line fuse.

The suggested input line fuse is below :

| Model | Fuse Rating (A) | Fuse Type |
|-----------------------------|-----------------|-------------|
| CRE40-12xxx CREW40-24xxx | 8 | Fast-Acting |
| CRE40-24xxx CREW40-48xxx | 4 | Slow-Blow |
| CRE40-48xxx8 | 2 | Slow-Blow |

The table based on the information provided in this data sheet on inrush energy and maximum DC input current at low Vin.

OUTPUT VOLTAGE ADJUSTMENT

It allows the user to increase or decrease the output voltage of the module.

This is accomplished by connecting an external resistor between the Trim pin and either the +Vout or -Vout pins.

With an external resistor between the Trim and -Vout pin, the output voltage increases.

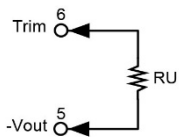
With an external resistor between the Trim and +Vout pin, the output voltage decreases.

The external Trim resistor needs to be at least 1/8W of rated power.

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method shown below.

Trim-up



3.3VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Vout (V) | 3.333 | 3.366 | 3.399 | 3.432 | 3.465 | 3.498 | 3.531 | 3.564 | 3.597 | 3.630 |
| RU (k Ω) | 43.179 | 21.758 | 13.410 | 8.966 | 6.206 | 4.325 | 2.961 | 1.927 | 1.115 | 0.462 |

5VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vout (V) | 5.05 | 5.10 | 5.15 | 5.20 | 5.25 | 5.30 | 5.35 | 5.40 | 5.45 | 5.50 |
| RU (k Ω) | 35.360 | 16.244 | 9.752 | 6.483 | 4.514 | 3.198 | 2.257 | 1.550 | 1.000 | 0.559 |

12VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|--------|--------|--------|--------|--------|-------|-------|
| Vout (V) | 12.12 | 12.24 | 12.36 | 12.48 | 12.60 | 12.72 | 12.84 | 12.96 | 13.08 | 13.20 |
| RU (k Ω) | 392.864 | 172.175 | 101.446 | 66.591 | 45.837 | 32.068 | 22.264 | 14.929 | 9.234 | 4.685 |

15VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| Vout (V) | 15.15 | 15.30 | 15.45 | 15.60 | 15.75 | 15.90 | 16.05 | 16.20 | 16.35 | 16.50 |
| RU (k Ω) | 413.163 | 198.115 | 125.754 | 89.445 | 67.618 | 53.050 | 42.636 | 34.820 | 28.739 | 23.872 |
| ΔV (%) | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Vout (V) | 16.65 | 16.80 | 16.95 | 17.10 | 17.25 | 17.40 | 17.55 | 17.70 | 17.85 | 18.00 |
| RU (k Ω) | 19.888 | 16.568 | 13.759 | 11.350 | 9.262 | 7.434 | 5.822 | 4.389 | 3.106 | 1.951 |

24VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| Vout (V) | 24.24 | 24.48 | 24.72 | 24.96 | 25.20 | 25.44 | 25.68 | 25.92 | 26.16 | 26.40 |
| RU (k Ω) | 947.146 | 472.772 | 303.499 | 216.605 | 163.724 | 128.153 | 102.589 | 83.329 | 68.298 | 56.240 |
| ΔV (%) | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Vout (V) | 26.64 | 26.88 | 27.12 | 27.36 | 27.60 | 27.84 | 28.08 | 28.32 | 28.56 | 28.80 |
| RU (k Ω) | 46.353 | 38.099 | 31.104 | 25.101 | 19.892 | 15.330 | 11.302 | 7.718 | 4.509 | 1.619 |

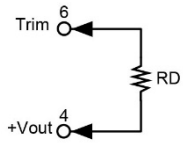
48VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 48.48 | 48.96 | 49.44 | 49.92 | 50.40 | 50.88 | 51.36 | 51.84 | 52.32 | 52.80 |
| RU (k Ω) | 531.639 | 226.403 | 131.987 | 86.042 | 58.867 | 40.910 | 28.162 | 18.642 | 11.263 | 5.376 |

53VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 53.53 | 54.06 | 54.59 | 55.12 | 55.65 | 56.18 | 56.71 | 57.24 | 57.77 | 58.30 |
| RU (k Ω) | 626.943 | 246.365 | 140.489 | 90.768 | 61.891 | 43.022 | 29.726 | 19.853 | 12.231 | 6.169 |

Trim-down



3.3VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| Vout (V) | 3.267 | 3.234 | 3.201 | 3.168 | 3.135 | 3.102 | 3.069 | 3.036 | 3.003 | 2.970 |
| RD (k Ω) | 68.728 | 31.256 | 18.592 | 12.227 | 8.398 | 5.841 | 4.012 | 2.639 | 1.570 | 0.715 |

5VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Vout (V) | 4.95 | 4.90 | 4.85 | 4.80 | 4.75 | 4.70 | 4.65 | 4.60 | 4.55 | 4.50 |
| RD (k Ω) | 46.686 | 20.817 | 12.360 | 8.162 | 5.653 | 3.984 | 2.794 | 1.903 | 1.210 | 0.656 |

12VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 11.88 | 11.76 | 11.64 | 11.52 | 11.40 | 11.28 | 11.16 | 11.04 | 10.92 | 10.80 |
| RD (k Ω) | 435.294 | 201.116 | 120.429 | 79.573 | 54.894 | 38.371 | 26.535 | 17.639 | 10.709 | 5.157 |

15VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|--------|--------|--------|--------|--------|--------|-------|-------|
| Vout (V) | 14.85 | 14.70 | 14.55 | 14.40 | 14.25 | 14.10 | 13.95 | 13.80 | 13.65 | 13.50 |
| RD (k Ω) | 302.154 | 132.978 | 78.547 | 51.685 | 35.680 | 25.055 | 17.489 | 11.826 | 7.429 | 3.916 |

24VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|---------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 23.76 | 23.52 | 23.28 | 23.04 | 22.80 | 22.56 | 22.32 | 22.08 | 21.84 | 21.60 |
| RD (k Ω) | 736.063 | 326.672 | 192.473 | 125.790 | 85.913 | 59.383 | 40.459 | 26.282 | 15.263 | 6.454 |

48VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|---------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 47.52 | 47.04 | 46.56 | 46.08 | 45.60 | 45.12 | 44.64 | 44.16 | 43.68 | 43.20 |
| RD (k Ω) | 558.604 | 257.390 | 153.744 | 101.292 | 69.616 | 48.413 | 33.225 | 21.811 | 12.920 | 5.798 |

53VDC Output

| ΔV (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------|---------|---------|---------|---------|--------|--------|--------|--------|--------|-------|
| Vout (V) | 52.47 | 51.94 | 51.41 | 50.88 | 50.35 | 49.82 | 49.29 | 48.76 | 48.23 | 47.70 |
| RD (k Ω) | 551.986 | 256.323 | 153.564 | 101.358 | 69.765 | 48.589 | 33.408 | 21.991 | 13.093 | 5.962 |

MODEL NUMBER SETUP

| CRE | W | 40 | - | 12 | S | 05 | N | HC |
|-------------|-------------------|--------------|---|--|--|---|--|---|
| Series Name | Input Range | Output Power | | Input Voltage | Output Quantity | Output Voltage | Remote On/Off | Assembly Options |
| | Blank: 2:1 | | | 12: 9~18VDC 24: 18~36VDC 48: 36~75VDC | S: Single D: Dual | 03: 3.3VDC 05: 5VDC 12: 12VDC 15: 15VDC 24: 24VDC 12: ±12VDC 15: ±15VDC 24: ±24VDC | Blank: Positive Logic N: Negative Logic | Blank: None HC: 7G-0020C-F; H=0.22"* HC1: 7GA0120P01-F; H=0.3" HC2: 7GA0121P01-F; H=0.5" HC3: 7GA0122P01-F; H=0.8" |
| | W: 4:1 | | | 24: 9~36VDC 48: 18~75VDC | S: Single D: Dual | 03: 3.3VDC 05: 5VDC 12: 12VDC 15: 15VDC 24: 24VDC 48: 48VDC 53: 53VDC 12: ±12VDC 15: ±15VDC 24: ±24VDC | | |

*Not recommended for new designs.

COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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