# 15W DC - DC Regulated
# Single Output Converter

**HanRun®**
Electronics Company Limited

**Features :**
- 50.8x25.4mm compact size
- High efficiency up to 81%'
- 1500VDC I/O isolation
- Cooling by free air convection
- Six-sided shield metal case
- 100% burn-in test
- Low cost / High reliability
- Protections: Short circuit / Over Current
- Industry Standard Pinout
- RoHS Compliant (Pb Free)

HanRun
DC/DC Converter
HR833003
48V to 3.3V 4.5A
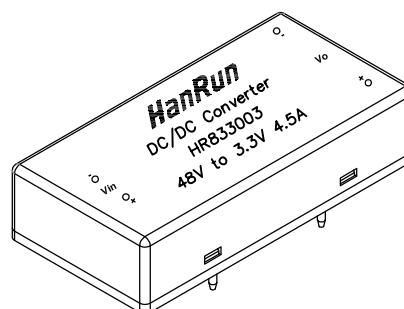
## Electrical Specification @25°C

| | | |
|---|---|---|
| **Output** | DC Volatage | 3.3V |
| | Current Range | 450 ~ 4500mA |
| | Rated Power | 15W |
| | Ripple & Noise (note 2) | 150mVp-p Max. @ BW=DC to 20MHz |
| | Line Regulation (note 3) | ±1% |
| | Load Regulation (note 4) | ±1% |
| | Voltage Accuracy | ±2% |
| | Switching Frequcy | 370KHz Typ. |
| | | |
| **Input** | Voltage Range | 36 ~ 72VDC |
| | Efficiency (Typ.) | 81% |
| | DC Current (Typ.) | 10mA @ No Load / 550mA @ Full Load |
| | Filter | Capacitors |
| | Protection | External Fuse recommended |
| | | |
| | | |
| **Protection (note 5)** | Over Current | 110% ~ 180% Rated output current |
| | Short Circuit | All output equipped with short circuit . Protection type:Hiccup mode,recovers automatically after fault condition is removed |
| | | |
| **Environment** | Working Temprature | −40 ~ +85℃ |
| | Working Humidity | 0% ~ 90% RH   non−condensing |
| | Storage Temp., Humidity | −40 ~ +85℃, 10 ~ 95% RH |
| | | |
| | | |
| **Safety** | Withstand Voltage | Input to output :1500VDC Min. , 5mA Max. , 60 senonds |
| | Isolation Resistance | Input to output :1000M Ohms @ 500VDC 25℃ 70% RH |
| | | |
| | | |
| **Others** | Dimension | 50.8*25.4*11.8 mm (L*W*H) |
| | Weight | about 30g |
| | | |

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## HR833003

Note :
1. All parameters are specified at normal input, rated load, 25℃ ambient.
2. Ripple & noise are measured by using a probe terminated with a 0.1uf & 47uf capacitor
3. Line regulation is measured from low line to high line at rated load.
4. Load regulation is measured from 10% to 100% rated load.
5. Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.
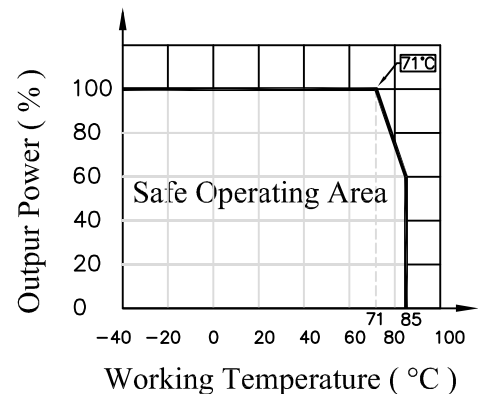6. This part is not designed for parallel operation.

## Pin Assignment

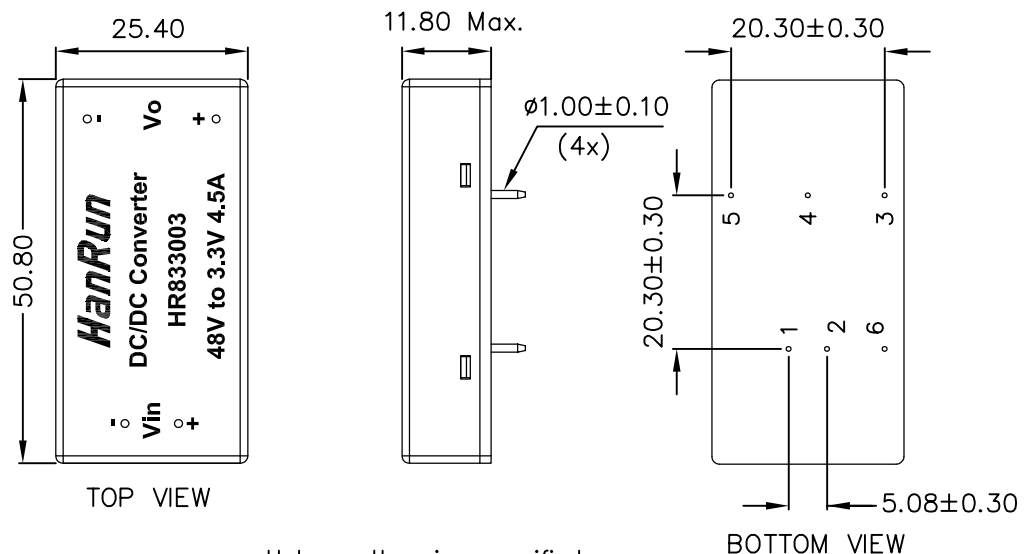| Pin | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| single | +Vin | −Vin | −Vout | NC | +Vout | NC |

## Recommended Test Circuit
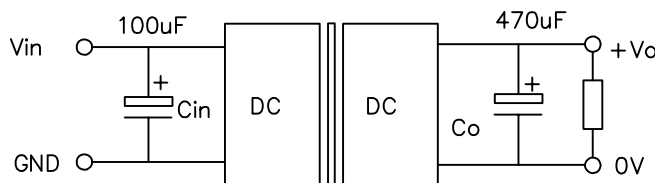


## Temperature Derating Graph



Working Temperature ( °C )

## Mechanical Dimensions



TOP VIEW

BOTTOM VIEW

Unless otherwise specified,
Tol.: .xx ± 0.50 (mm)