

DNV-30 SERIES, 30WATT, 2:1 INPUT RANGE
FEATURES:

- ✓ 3 years warranty
- ✓ 1500Vac isolation voltage
- ✓ Six-side shielded metal case with low ripple and noise
- ✓ Operating temperature range -40°C to +85°C
- ✓ Over voltage, over current, short circuit protection
- ✓ Remote on/off
- ✓ Adjustable output voltage



| Model | Input voltage (Vdc) | Output voltage (Vdc) | Output current (A) | Efficiency Typ. |
|-------------|------------------------|-------------------------|-----------------------|--------------------|
| DNV30-1211 | 12(9~18) | 3.3 | 8 | 83% |
| DNV30-1212 | | 5.1 | 6 | 84% |
| DNV30-1213 | | 12.1 | 2.5 | 85% |
| DNV30-1214 | | 15.1 | 2 | 85% |
| DNV30-1215 | | 24.2 | 1.25 | 85% |
| DNV30-2411 | 24(18~36) | 3.3 | 8 | 85% |
| DNV30-2412 | | 5.1 | 6 | 88% |
| DNV30-2413 | | 12.1 | 2.5 | 88% |
| DNV30-2414 | | 15.1 | 2 | 87% |
| DNV30-2415 | | 24.2 | 1.25 | 87% |
| DNV30-4811 | 48(36~72) | 3.3 | 8 | 85% |
| DNV30-4812 | | 5.1 | 6 | 88% |
| DNV30-4813 | | 12.1 | 2.5 | 88% |
| DNV30-4814 | | 15.1 | 2 | 87% |
| DNV30-4815 | | 24.2 | 1.25 | 87% |
| DNV30-11011 | 110(66~160) | 5.1 | 6 | 88% |
| DNV30-11012 | | 12.1 | 2.5 | 88% |
| DNV30-11013 | | 15.1 | 2 | 87% |
| DNV30-11014 | | 24.2 | 1.25 | 87% |

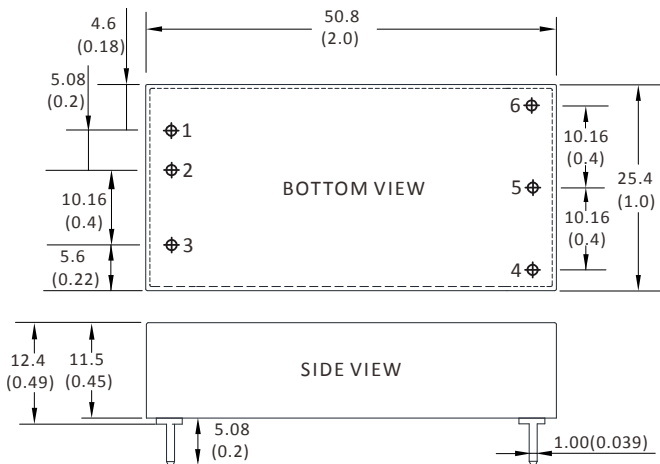
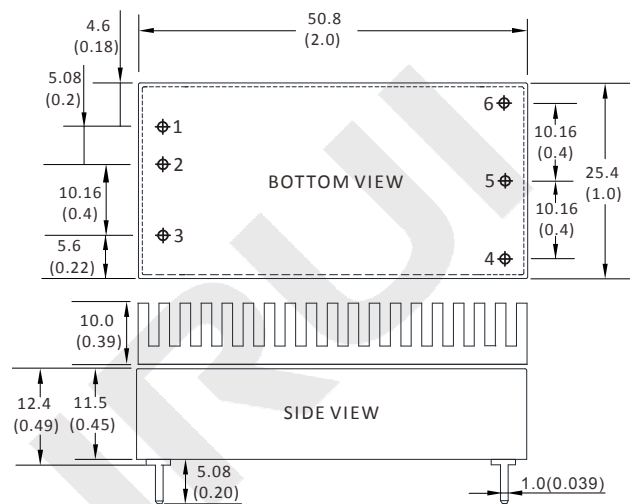
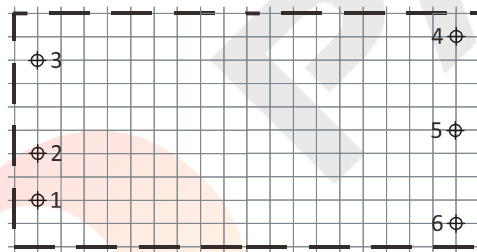
Notes:

1. Other input and output models may available on request;
2. You may request for the models with heatsink, plus "R" in the suffix, e.g. DNV30-1211R.

DNV-30 SERIES, 30WATT, 2:1 INPUT RANGE
ELECTRICAL

| | | |
|---|---|---|
| Input voltage range | 12V | 9-18Vdc |
| | 24V | 18-36Vdc |
| | 48V | 36-72Vdc |
| | 110V | 60-166Vdc |
| Remote control | REM left open | Output on |
| | REM connect with -Vin | Output off |
| Input under voltage protection | When input voltage is lower than the low terminal input voltage | Auto-recovery |
| Output voltage accuracy | --- | ≤1% |
| Output voltage adjustable | --- | ±10% max. |
| Line regulation | Nominal Load, full voltage | ±0.2% max. |
| Load regulation | 20% ~ 100% rated load | ±0.5% max. |
| Dynamic response (transient/recovery time) | 5%-50%-75% load capability | $\Delta V_o/\Delta t$: ±5.0%/200 μ s |
| Ripple and noise | 20MHz BM, full load | 1% Vout max. |
| Isolation voltage (<2mA/min) | Input to output | 1500Vac |
| | Input to case | 1500Vac |
| | Output to case | 500Vac |
| Isolation resistance | 500Vdc | 100M Ω |
| Temperature coefficient | --- | ±0.02%/°C max. |
| Operating temperature range | Auxiliary heat sink | -40°C to +85°C |
| Storage temperature range | --- | -45°C to +120°C |
| Over current protection | --- | Auto-recovery |
| Short circuit protection | --- | Continuous auto-recovery |
| Over voltage protection | --- | Auto-recovery |
| Cooling method | 30W need external heatsink | Cooling by air convection |
| Relative humidity | --- | 10%-90% max. |
| Weight | --- | 60g |
| MTBF | Bellcore TR-332, 25°C | 2x10 ⁵ Hrs |

Notes: Unless otherwise specified, all the parameters of the test conditions are as follows: ambient temperature 25°C, the nominal input voltage, pure resistive nominal load.

DNV-30 SERIES, 30WATT, 2:1 INPUT RANGE
MECHANICAL
WITHOUT HEATSINK

WITH HEATSINK

PCB LAYOUT


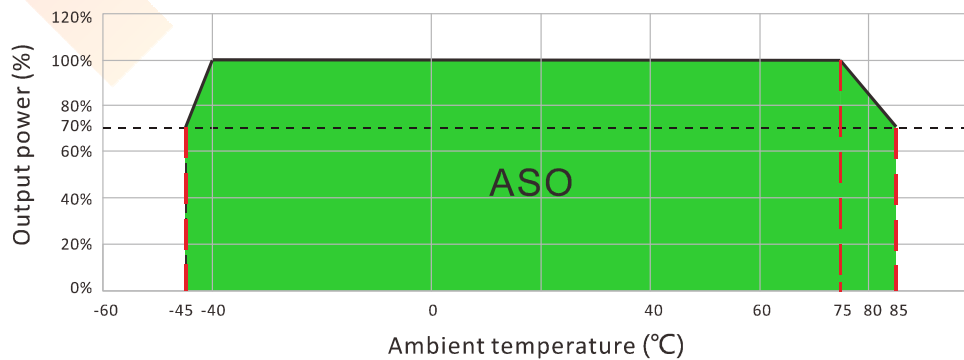
Unit: mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1inch)

CONNECTION

| PIN # | SINGLE |
|-------|--------|
| 1 | +Vin |
| 2 | -Vin |
| 3 | REM |
| 4 | TRIM |
| 5 | GND |
| 6 | +Vo |

Note:

* Unit is mm(inch).

TEMPERATURE PROFILE


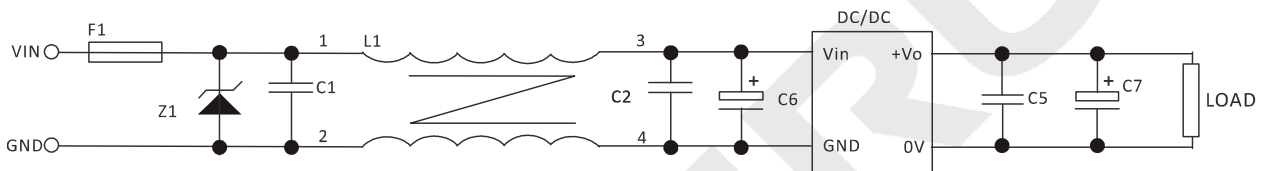
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CAPACITIVE LOADS SELECTION

| Vout:3.3V 5V | | Vout:12V 5V | | Vout:24V | |
|-------------------|---------------|-------------------|--------------|-------------------|--------------|
| Recommended value | MAX. value | Recommended value | MAX. value | Recommended value | MAX. value |
| 10000 μ F | 15000 μ F | 3000 μ F | 6000 μ F | 2000 μ F | 3000 μ F |

NOTES

RECOMMENDED TEST AND APPLICATION CIRCUIT



1. TVS&FUSE be helpful with over voltage protection and inrush limiting. Recommended FUSE better be 1.5~2times of the rated current .
2. The input filter capacitor C6 could select the aluminum electrolytic capacitors or tantalum capacitors, and the withstand voltage should be greater than the highest input voltage. Recommended capacitor should be between 22 μ F~100 μ F.
3. C1,C2 for the input filter capacitor,0.1~1 μ F high-frequency ceramics capacitor or chip capacitor are recommended. The withstand voltage of output filter C5, C7 should be greater than the highest output voltage. Recommended capacitor of C7 better within 100 μ F and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1 μ F high-frequency ceramics capacitor or chip capacitor.