DNV-20 SERIES, 20WATT, 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.
DNV20-1211	12(9~18)	3.3	6	84%
DNV20-1212		5.1	4	84%
DNV20-1213		12.1	1.6	85%
DNV20-1214		15.1	1.3	85%
DNV20-1215		24.2	0.8	86%
DNV20-2411	24(18~36)	3.3	6	88%
DNV20-2412		5.1	4	90%
DNV20-2413		12.1	1.6	89%
DNV20-2414		15.1	1.3	87%
DNV20-2415		24.2	0.8	87%
DNV20-4811	48(36~72)	3.3	6	86%
DNV20-4812		5.1	4	88%
DNV20-4813		12.1	1.6	88%
DNV20-4814		15.1	1.3	87%
DNV20-4815		24.2	0.8	87%
DNV20-11012	110(66~160)	5.1	4	89%
DNV20-11013		12.1	1.6	89%
DNV20-11014		15.1	1.3	90%
DNV20-11015		24.2	0.8	90%

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. DNV20-1211R.

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ELECTRICAL		
Input voltage range	12V	9-18Vdc
	24V	18-36Vdc
	48V	36-72Vdc
	110V	66-160Vdc
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	ΔVo/Δt: ±5.0%/200μs
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	100MΩ
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
Weight	---	40g
Relative humidity	---	10%-90% max.
Conducted emission	CLASS A	EN55022
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℃, the nominal input voltage, pure resistive nominal load.

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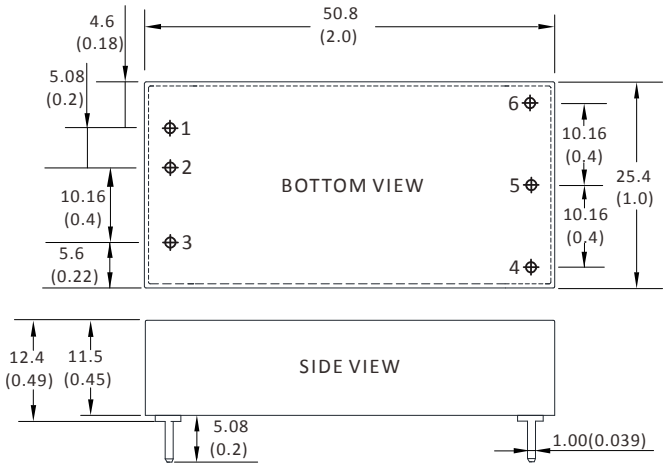
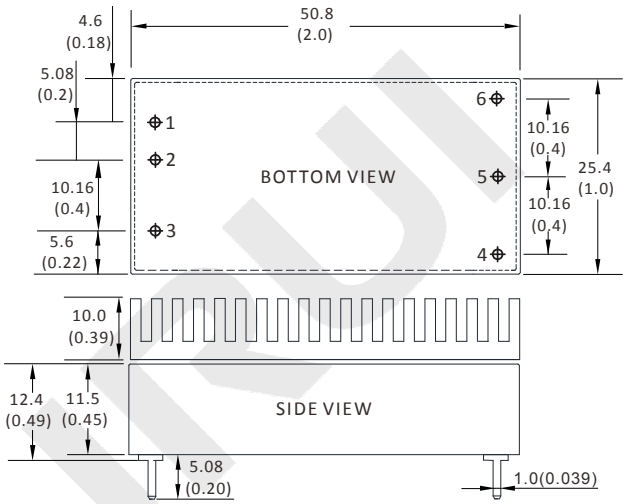
MECHANICAL

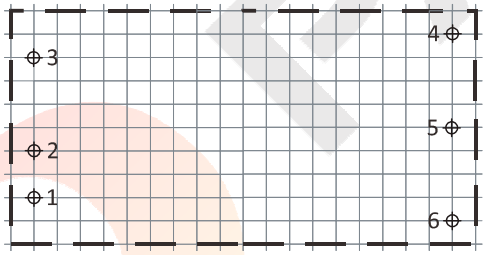
WITHOUT HEATSINK



WITH HEATSINK



PCB LAYOUT



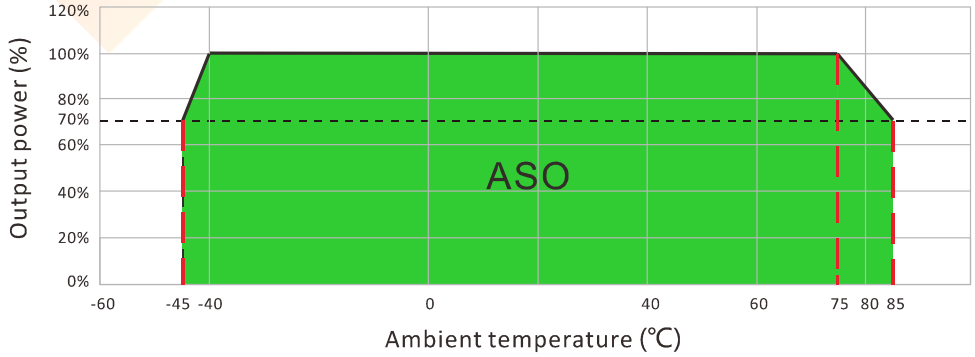
CONNECTION

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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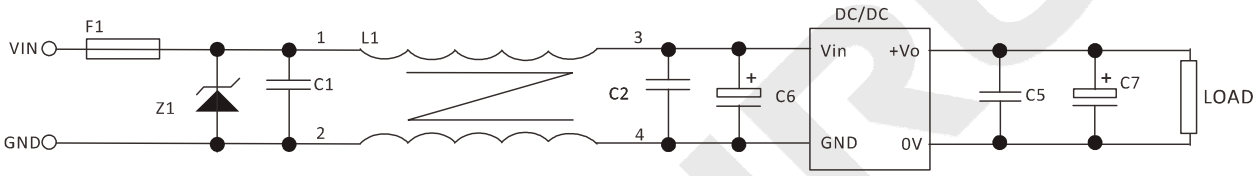
CAPACITIVE LOADS SELECTION

Vout: 3.3V 5V		Vout: 12V 5V		Vout: 24V	
Recommended value	MAX. value	Recommended value	MAX. value	Recommended value	MAX. value
10000μF	15000μF	3000μF	6000μF	2000μF	3000μF

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 22μF~100μF.
3. C1,C2 for the input filter capacitor,0.1~1μF 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 100μF and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1μF high-frequency ceramics capacitor or chip capacitor.