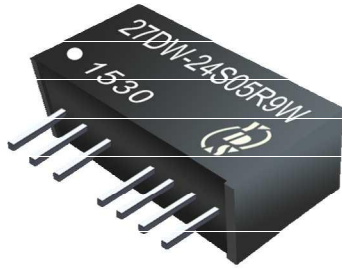




Yuan Dean Scientific CO.,LTD 27DW- 9W SERIES

9Watt Single & Dual Output Regulated 1600Vdc Isolation Dc-Dc Converter



FEATURES:

- 4:1 Wide Input Voltages Range
- High Efficiency up to 89%
- Regulated Output Types
- Internal SMD Construction
- Operating Temperature: **-40°C TO +100°C**
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback.



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

| Part Number | Input Voltage Range | Nominal Input Voltage | Output Voltage Range | Output Current | Efficiency |
|---------------|---------------------|-----------------------|----------------------|----------------|------------|
| | Vdc | Vdc | Vdc | mA | %TYP |
| 27DW-24S03R9W | 9-36 | 24 | 3.3 | 2000 | 82 |
| 27DW-24S05R9W | 9-36 | | 5 | 1600 | 85 |
| 27DW-24S09R9W | 9-36 | | 9 | 1000 | 88 |
| 27DW-24S12R9W | 9-36 | | 12 | 750 | 88 |
| 27DW-24S15R9W | 9-36 | | 15 | 600 | 89 |
| 27DW-24S24R9W | 9-36 | | 24 | 375 | 89 |
| 27DW-48S03R9W | 18-75 | 48 | 3.3 | 2000 | 82 |
| 27DW-48S05R9W | 18-75 | | 5 | 1600 | 85 |
| 27DW-48S09R9W | 18-75 | | 9 | 1000 | 89 |
| 27DW-48S12R9W | 18-75 | | 12 | 750 | 89 |
| 27DW-48S15R9W | 18-75 | | 15 | 600 | 89 |
| 27DW-48S24R9W | 18-75 | | 24 | 375 | 89 |
| 27DW-24D05R9W | 9-36 | 24 | ±5 | ±800 | 86 |
| 27DW-24D12R9W | 9-36 | | ±12 | ±375 | 88 |
| 27DW-24D15R9W | 9-36 | | ±15 | ±300 | 88 |
| 27DW-48D05R9W | 18-75 | 48 | ±5 | ±800 | 85 |
| 27DW-48D12R9W | 18-75 | | ±12 | ±375 | 88 |
| 27DW-48D15R9W | 18-75 | | ±15 | ±300 | 87 |

Input Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|--|--------------------------|-----|--------|-----|-------|
| Voltage Type | 24VIN(nom) | 9 | 24 | 36 | |
| | 48 VIN(nom) | 18 | 48 | 75 | |
| Input current at no load (Nominal input voltage) | 24V models 48V models | | 9 4 | | mA |
| Filter | Capacitor | | | | |

Output Specifications

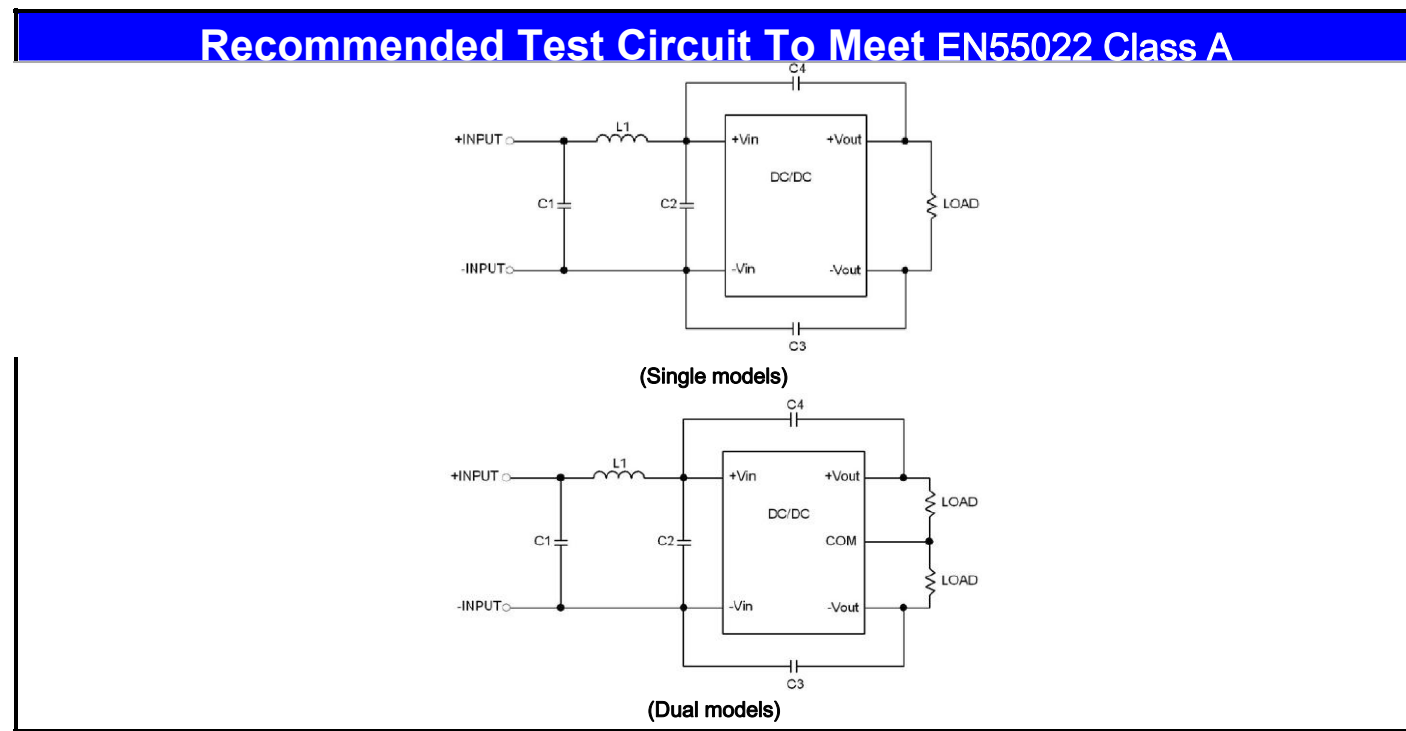
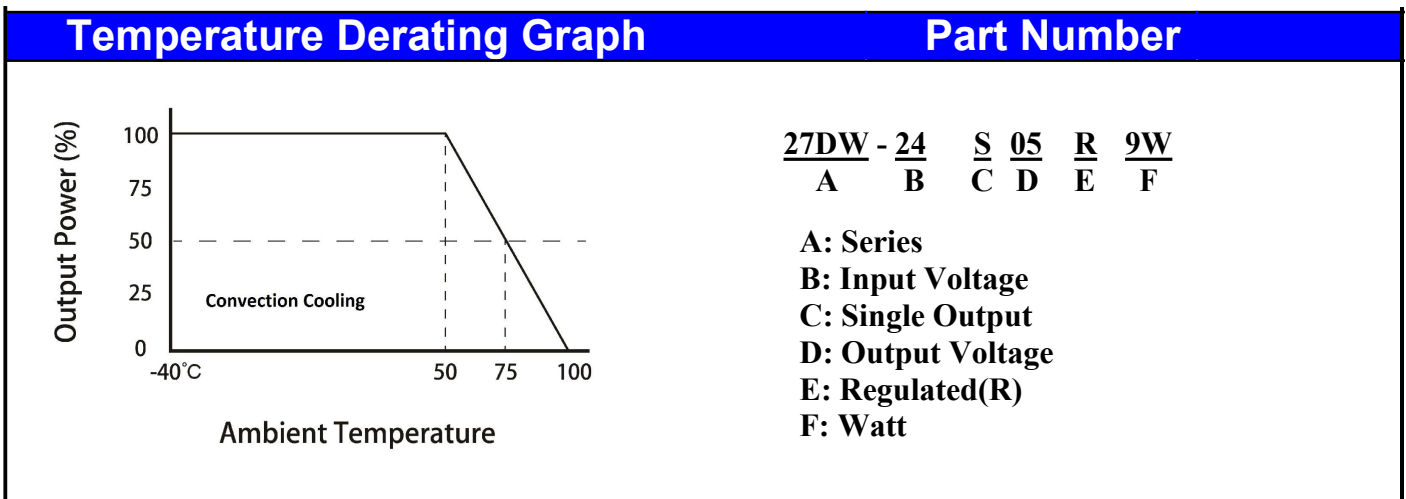
| Parameters | Conditions | Min | Typ | Max | Units |
|---------------------------------|-----------------------------------|------|-----|------------|-------|
| Voltage Tolerance | 100% full load | -1.0 | | +1.0 | % |
| Short Circuit Protection | Continuous,Auto-Recovery | | | | |
| Line Regulation | | -0.5 | | +0.5 | % |
| Load Regulation | Single output models | -1.0 | | +1.0 | % |
| | Dual output models | -5.0 | | +5.0 | |
| Ripple & Noise | Output:3-10V TYPES BW=DC To 20MHz | | | 100 | mVp-p |
| Ripple & Noise | Output > 10V TYPES BW=DC To 20MHz | | | 1% of Vout | mVp-p |
| Transient response setting time | 25% load step change | | 250 | | us |



Yuan Dean Scientific CO.,LTD 27DW- 9W SERIES

9Watt Single & Dual Output Regulated 1600Vdc Isolation Dc-Dc Converter

| General Specifications | | | | | |
|--|---------------------|-------------------------|------|-----|-------|
| Parameters | Conditions | Min | Typ | Max | Units |
| Isolation Voltage | | | 1600 | | Vdc |
| Isolation Resistance | 500Vdc | 1000 | | | MΩ |
| Switching Frequency (Full load,nominal input) | Single | | 400 | | KHz |
| | Dual | | 500 | | |
| Operating Temperature | With derating | -40 | | 100 | ℃ |
| Storage Temperature | | -55 | | 125 | ℃ |
| Humidity | Non Condensing | | | 95 | % |
| Cooling | Free air Convection | | | | |
| Case material | Plastic | | | | |
| MTBF | MIL-HDBK-217F225℃ | 2.696 x 10 ⁶ | | | Hours |
| Weight | | | 4.8 | | g |
| Dimensions | | 21.8X9.2X11.1 | | | mm |

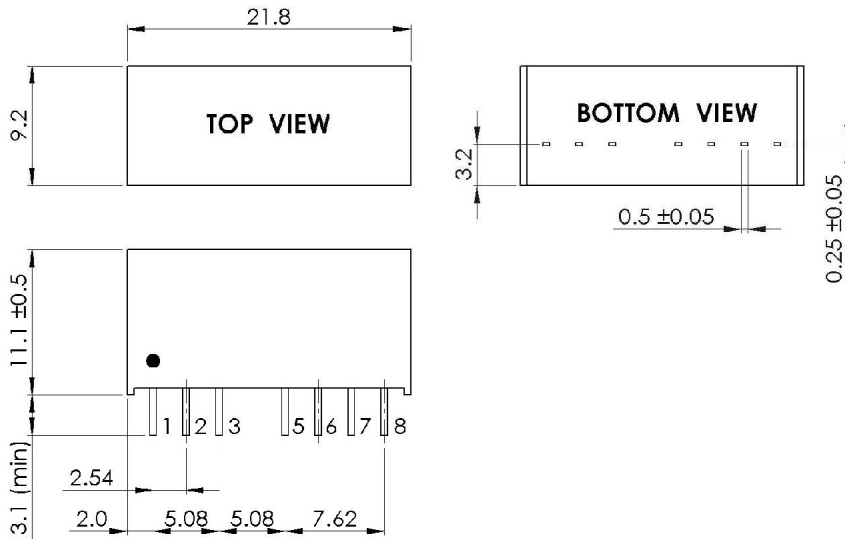




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9Watt Single & Dual Output Regulated 1600Vdc Isolation Dc-Dc Converter

Markings and Dimensions



UNIT: mm

tolerances are XX.X±0.5 , XX.XX±0.25, the tolerance of Pin size is ±0.05

PIN Assignment

| PIN | 1 | 2 | 3 | 5 | 6 | 7 | 8 |
|--------|------|------|------|----|-------|-------|-------|
| Single | -Vin | +Vin | Ctrl | NC | +Vout | -Vout | NC |
| Dual | -Vin | +Vin | Ctrl | NC | +Vout | COM | -Vout |