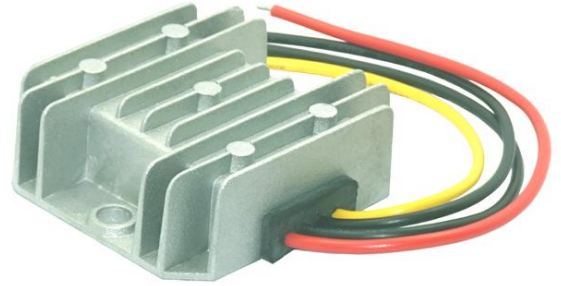


Step-Down/Up 8-40V to 12V 3A DC-DC Converters 36W

Features:

1. 100% full power & stable current output
2. 100% Imported components
3. Wide input voltage from 8-40Vdc
4. 100% waterproof & anti-shock protection, Ultra compact size, light weight
5. Industry grade step-down converter, efficiency up to 87%
6. Waterproof level: IP68
7. According CE(EN61000) / RoHS design
8. Die-cast aluminum shell, epoxy potting, Cooling by free air convection,
9. Protections: Over-current, Over-voltage, and Over-temperature
Auto-recovery when device is back to normal operating
10. Non-Isolated Module
11. 1 year warranty



WG8-40S12 series is a compact size high reliability power converter offered by SZWENGGAO, It features wide input voltage, low power consumption, high efficiency, high reliability. It can work safely and reliability in $-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$. It widely used in industrial, automotive, instruments, telecommunication and civil applications.

Input Specifications

| Item | Operating Conditions | Min. | Typ. | Max. | Unit |
|------------------------------|----------------------|----------------------|------------|------|------|
| Input voltage range | -- | 8 | 12/24 | 40 | VDC |
| Input current | -- | 6.8 | 3.4A @ 12V | 1.0 | A |
| No-load loss | -- | 20 | 25 | 30 | mA |
| Input low voltage protection | Recovery point | | 8 | 8.5 | VDC |
| | Under voltage point | 6 | 8 | | VDC |
| Efficiency | -- | 80 | 85 | 87 | % |
| Input filter | -- | Without capacitances | | | |
| Hot plug | -- | Unavailable | | | |

Output Specifications

| Item | Operating Conditions | Min. | Typ. | Max. | Unit |
|-------------------------|----------------------------------|------|-----------|-----------|-------|
| Output voltage accuracy | Full load test, input volt range | -- | ± 1 | ± 2 | % |
| Line regulation | Full load | -- | ± 0.2 | ± 0.5 | % |
| Load regulation | 10%~100% load | -- | ± 0.3 | ± 0.5 | % |
| Ripple | 20 MHz bandwidth | 90 | 100 | 120 | mVp-p |
| Switch frequency | -- | 150 | 160 | 170 | KHz |
| Noise (peak-to-peak) | 20 MHz bandwidth | 100 | 120 | 150 | mV |

Protection Specifications

| Item | Operating Conditions | Min. | Typ. | Max. | Unit |
|-----------------------------|-----------------------------------|-------|--------|---------|------|
| Over temperature protection | Chip (built-in protection) | 120 | 125 | 130 | ℃ |
| Overcurrent protection | -- | 6A@8V | 8A@12V | 12A@24V | A |
| Overvoltage protection | Item will be damage @ 42Vdc | -- | 40 | 42 | V |
| Short-circuit protection | Hiccup, continuous, self-recovery | -- | -- | 30 | mΩ |

Security Features

| Item | Operating Conditions | Min. | Typ. | Max. | Unit |
|------------------------------|----------------------|------|------|------|------|
| Insulation withstand voltage | -- | -- | -- | 500 | V |
| Insulation resistance | test @ 500V | -- | 10 | -- | MΩ |
| Isolate the capacitor | Non-isolated module | -- | -- | -- | PF |

General Specifications

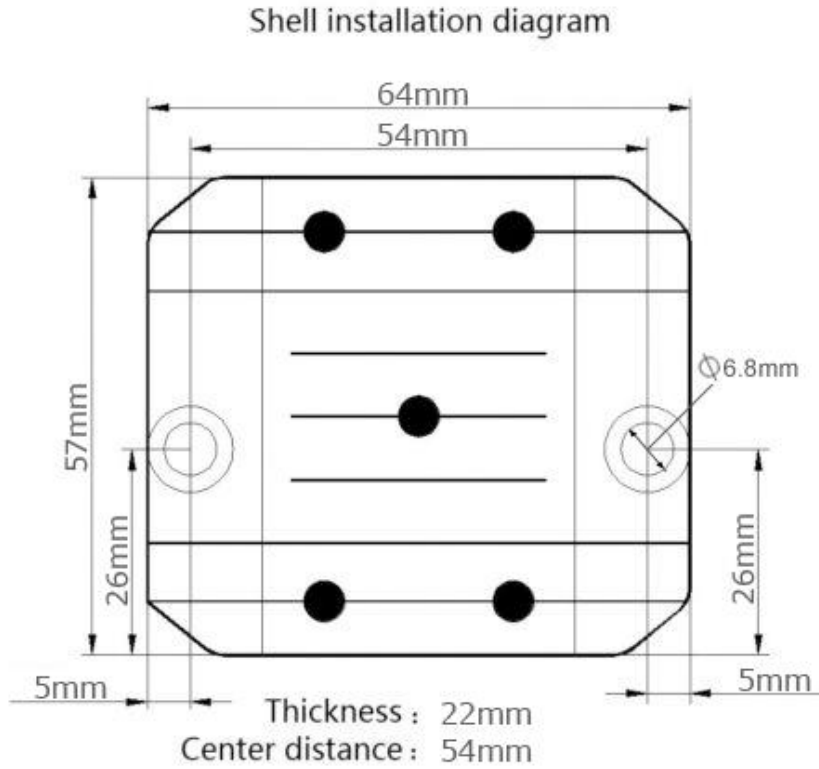
| Item | Operating Conditions | Min. | Typ. | Max. | Unit |
|-------------------------|----------------------|------|-------|---------|-------|
| Working temperature | -- | -55 | -- | 100 | ℃ |
| Storage temperature | -- | -65 | -- | 125 | ℃ |
| Temperature coefficient | -40℃ ~ +80℃ | -- | 0.003 | 0.005 | %/℃ |
| Relative humidity | No condensation | 20 | -- | 100 | %RH |
| Lifetime | | -- | -- | 100,000 | Hours |

Physical Specifications

| | |
|-------------------------------|-------------------------------|
| Casing material | Die-cast aluminum shell |
| Input cable (positive "+") | Red ; 18AWG; 16.5cm length |
| Input cable (negative "-") | Black ; 18AWG; 16.5cm length |
| Output cable (positive "+") | Yellow ; 18AWG; 16.5cm length |
| Output cable (negative "-") | Black ; 18AWG; 16.5cm length |
| Weight | 108g |
| Cooling method | Free convection |
| Packing | White box |



Dimension



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