



## DC-DC Step Up Converter

Model  
STEP 20  
20 Amps

### Design Features

- High efficiency switching regulator
- Very low self consumption - less than 5mA
- Small size and lightweight
- Non-isolated input and output design for higher efficiency
- Protected against overload, short circuit, reverse polarity, high voltage and transient suppression on input side

## 2 YEAR LIMITED WARRANTY

|                           | MODEL NO.   | STEP 20  |
|---------------------------|---|--|
| INPUT                     | INPUT VOLTAGE RANGE                                     | 9-18 VDC   |
|                           | INPUT CURRENT AT NO LOAD                                | < 5mA  |
| OUTPUT                    | OUTPUT VOLTAGE AT NO LOAD                               | 25V ± 0.1V   |
|                           | OUTPUT VOLTAGE REGULATION                               | +0% / -5%  |
|                           | OUTPUT CURRENT  | 20A  |
|                           | OUTPUT NOISE AND RIPPLE                                 | < 50mV RMS   |
| ISOLATION                 | PEAK EFFICIENCY   | 92%  |
|                           | ISOLATION: INPUT TO OUTPUT                              | No. Common Negative  |
| TEMPERATURE RISE/ COOLING | ISOLATION: INPUT/ OUTPUT TO CHASSIS                     | Isolated   |
|                           | TEMPERATURE RISE AFTER 30 MIN OF OPERATION AT FULL LOAD | 30°C at 20°C ambient   |
| PROTECTIONS               | TYPE OF COOLING   | By convection (No Fan)   |
|                           | 12V INPUT SIDE FUSE (INTERNAL)                          | 80A (2 x 40A)  |
|                           | 12V INPUT SIDE FUSE (EXTERNAL)                          | 70A (2 x 35A) (Not supplied)   |
|                           | 24V OUTPUT SIDE FUSE (INTERNAL)                         | No Fuse  |
|                           | 24V OUTPUT SIDE FUSE (EXTERNAL)                         | 20A (Not supplied)   |
|                           | REVERSE POLARITY ON INPUT SIDE                          | External / Internal Input Side Fuse will blow  |
|                           | HIGH VOLTAGE AND TRANSIENT SUPPRESSION ON INPUT SIDE    | - Will blow input side fuse at continuous input voltage > 40V.<br>- Also protects against load dump. |
| OVER CURRENT              | Short Circuit Proof. External 20A fuse will blow.       |  |
| INPUT OUTPUT CONNECTIONS  | TYPE OF CONNECTORS                                      | M6 Bolt and Nut  |
| COMPLIANCE                | ROHS  | RoHS compliant   |
|                           | EUROPEAN CONFORMITY                                     | CE marked; Emission: EN50081-1; Immunity: EN50082-1  |
| ENVIRONMENTAL             | EUROPEAN AUTOMOTIVE EMC DIRECTIVE                       | 95/54/EC   |
|                           | OPERATING TEMPERATURE RANGE                             | -20°C / -4°F to 30°C / 86°F (De-rate linearly to zero at 70°C / 158°F)                               |
| MECHANICAL                | HUMIDITY  | 95%. Non Condensing  |
|                           | CHASSIS   | Anodized Aluminum with plastic end covers  |
|                           | DIMENSIONS (WITH PROTRUSIONS)                           | 152 x 93 x 91 mm / 6 x 3.7 x 3.6 in  |
|                           | WEIGHT  | 1.8 kg / 4 lb.   |