

50 Watt, DHS-A Series, DC-DC Converter (Single Output)

ALL PSU LTD
Electronic Power Solutions

- High Input Range
- Regulated Outputs
- 3000V Isolation
- Industry Standard Encapsulated Package
- Quarter Brick
- Over Voltage and Current Protection
- High Efficiency up to 86%
- -40 to +100 °C Operational Temperature Range



Specification (typical values shown)

| | |
|------------------------------|---|
| Input Range..... | 60~160 Volts |
| Outputs..... | Single (see table below plus trim range) |
| Start Up Time..... | 200ms max |
| Line Regulation..... | 0.2% |
| Load Regulation..... | 0.2% |
| Efficiency..... | See table for each model |
| Over Current Protection..... | above 105% of nominal rated output, automatic recovery |
| Isolation Voltage..... | I/P~O/P: 3000 VDC |
| Operating Temperature..... | -40 to +100 °C |
| Storage Temperature..... | -40 to +100 °C |
| Approval..... | UL60950-1, cUL (CSA60950-1), EN60950-1 |
| Case Material..... | Aluminium baseplate, PBT Case |
| Weight..... | 60 g |

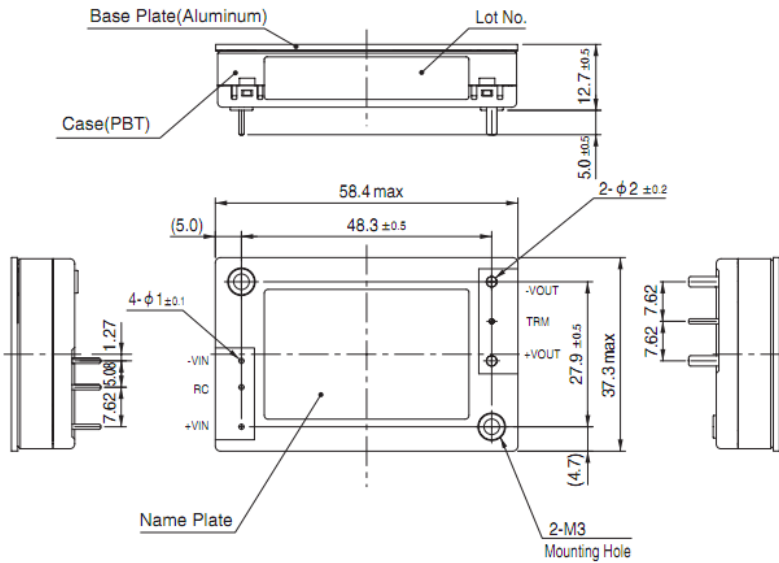
Models and Ratings

| Model | Input Range | Output Voltage | Output Current | Efficiency |
|----------|-------------|----------------|----------------|------------|
| DHS50A05 | 60~160 VDC | 5.0 V | 10.0 A | 84% |
| DHS50A12 | | 12.0 V | 4.2 A | 86% |
| DHS50A15 | | 15.0 V | 3.4 A | 86% |
| DHS50A24 | | 24.0 V | 2.1 A | 86% |

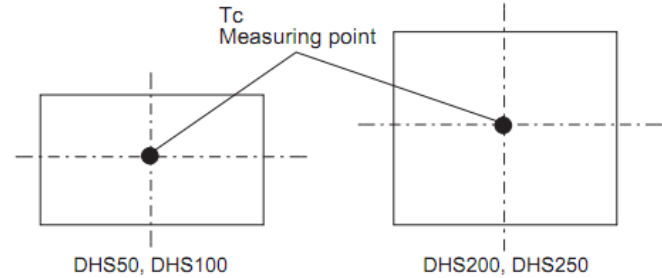
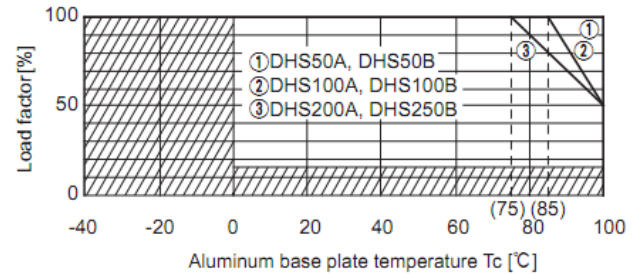
For mechanical data and pinout, see next page

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Mechanical Details and Pin-Out



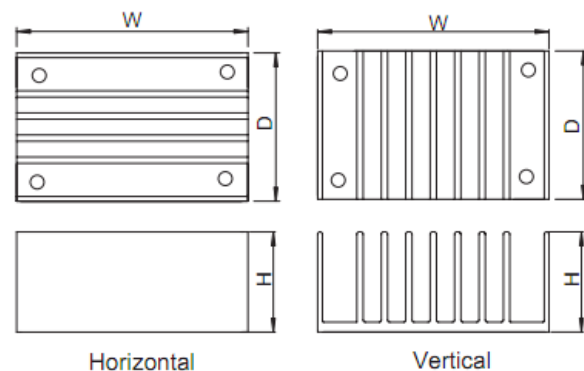
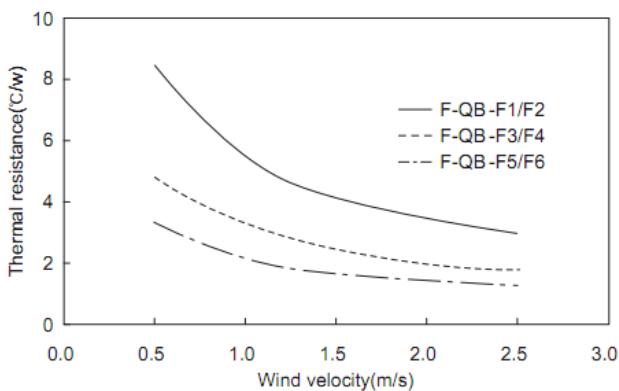
Derating Curve



Addition of a Heat sink :

These DC-DC Converters work with conduction cooling and therefore needs heat dissipation using heat sinks. Optional heat sinks are available for the DHS Series, please see table below

| Model | Size (mm) | | | Thermal Resistance (°C/W) | | Style |
|---------|-----------|------|------|---------------------------|-----------------|------------|
| | H | W | D | Convection (0.1m/s) | Forced Air | |
| F-QB-F1 | 12.7 | 58.4 | 37.6 | 14.0 | See Graph Below | Horizontal |
| F-QB-F2 | 12.7 | 58.7 | 37.3 | | | Vertical |
| F-QB-F3 | 25.4 | 58.4 | 37.6 | 7.5 | | Horizontal |
| F-QB-F4 | 25.4 | 58.7 | 37.3 | | | Vertical |
| F-QB-F5 | 38.1 | 58.4 | 37.6 | 5.0 | | Horizontal |
| F-QB-F6 | 38.1 | 58.7 | 37.3 | | | Vertical |



Specifications may change without notice, E&OE. ALL PSU Terms & Conditions apply
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