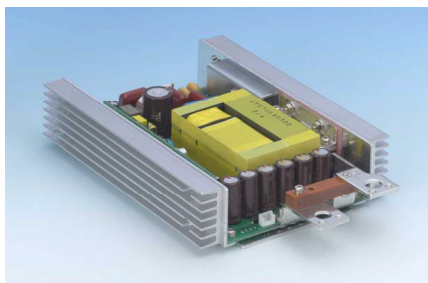




ETF-SC Series

300W DC/DC



FEATURES

- Light weight, compact size
- High efficiency, high reliability
- Over voltage and over current protection
- **Isolated Power Supply**



| | MODEL/CHANNEL | Unit | ETF3.3-SC300-U1 | ETF05-SC300-U1 | ETF12-SC300-U1 | ETF15-SC300-U1 | ETF24-SC300-U1 | ETF48-SC300-U1 | |
|------------------------|----------------------------|------|--|----------------|----------------|----------------|----------------|----------------|--|
| OUTPUT (Single) | Output Voltage | Vdc | 3.3 | 5 | 12 | 15 | 24 | 48 | |
| | Output Current | A | 60 | 60 | 25 | 20 | 12.5 | 6.3 | |
| | Line Regulation | mV | 20 | 40 | 48 | 60 | 120 | 192 | |
| | Load Regulation | mVp | 40 | 45 | 48 | 60 | 135 | 192 | |
| | Ripple and Noise | mVp | 150 | | 220 | 250 | 340 | 580 | |
| | Voltage Adjustment Range | - | ±10% of rated output voltage | | | | | | |
| | Rise Time | - | 500mS (maximum) at rated input/output conditions | | | | | | |
| | Temp. Coefficient | °C | 0.9 | 1.5 | 3.6 | 4.5 | 7.5 | 14.4 | |
| | Drift | mV | 20 | 40 | 48 | 60 | 135 | 192 | |
| | Dynamic Load Regulation | mV | 250 | 250 | 600 | 750 | 1,200 | 1,200 | |
| Efficiency | % | 94 | 95 | 96 | 96.5 | 96 | 96 | | |
| INPUT | Input Voltage | V | 300 | 200 to 380 | 300 | | | | |
| | Input Current; 5V Op Model | A | - | DC1.9 to 0.9 | - | | | | |
| | Input Voltage Range | - | 200 to 400 | - | 200 to 400 | | | | |
| Protection | Over Current Protection | A | Constant current drop, automatic recovery after removing the overload | | | | | | |
| | Parallel Operation | - | Turn on at least 1 minute after the input voltage shutdown to restart | | | | | | |
| | Remote Sense | - | Available (with load line form output terminal, connect + and - sensing terminals to + and - terminals of load line, respectively) | | | | | | |
| | Safety | - | - | | | | | | |
| | Ref. MTBF | - | 216,719 | 211,516 | 218,020 | 229,959 | 253,120 | 237,643 | |

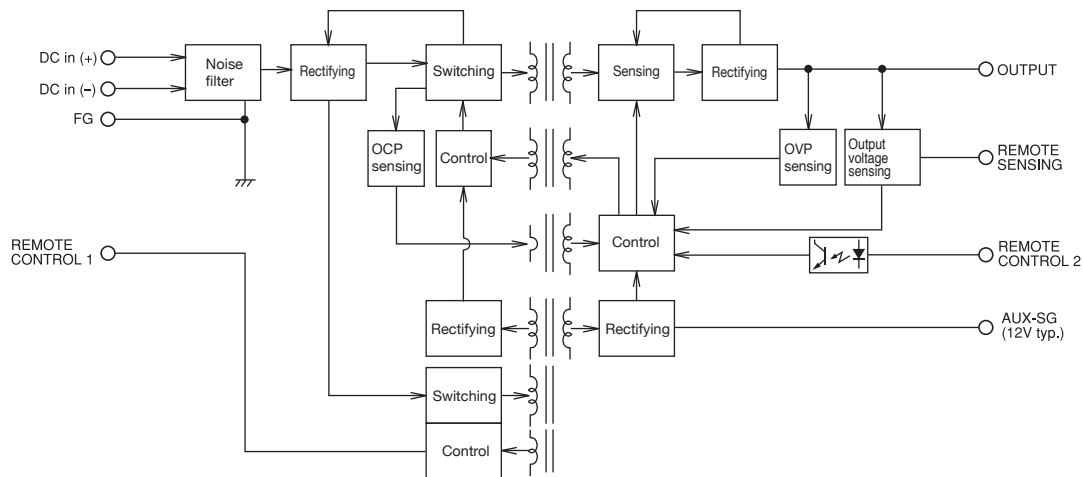




| | MODEL/CHANNEL | Unit | |
|-------------|--|------|---|
| Environment | Operating Temperature | °C | -10 to +71°C without thermal shock (see output derating table) |
| | Operating Humidity | % | 20-90%/RH (non-condensing) |
| | Storage Temperature | °C | -20 to +85°C |
| | Withstand Voltage Primary-Secondary | - | AC3000V for 1 minute without defect, faradic current=10mA |
| | Primary-Frame Ground | - | AC2000V for 1 minute without defect, faradic current=10mA |
| | Secondary-Frame Ground | - | AC1000V for 1 minute without defect, faradic current=20mA |
| | Isolation Resistance Primary - Secondary - Case | - | 100MΩ (minimum) by DC500V insulation tester |
| | Shock | - | 196m/s ² |
| | Cooling | - | Convection cooling |
| | Vibration | - | 5-10Hz: 10mm double amplitude, 10-55Hz: 19.6m/s ² , each along X, Y, Z axes (non-operating) |
| | Storage Humidity | - | 10 to 90% RH (non-condensing) |
| Dimension | Size(WxHxD) / Weight | mm/g | 115W×155L×38H Open-frame type/430g |

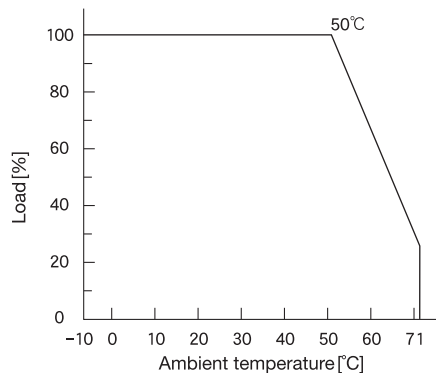
Block Diagram

300W



Temperature Derating Curve

300W



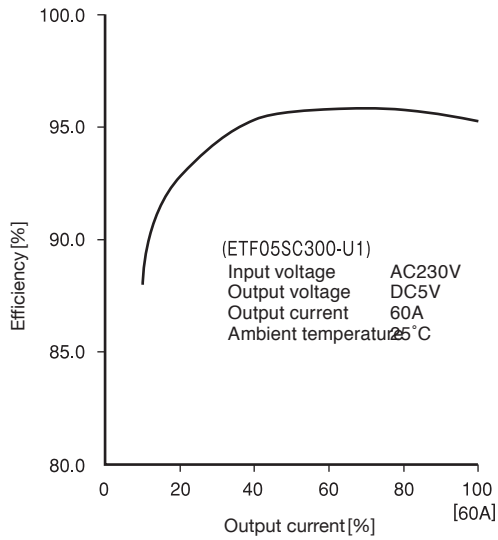


Output Current/Overcurrent

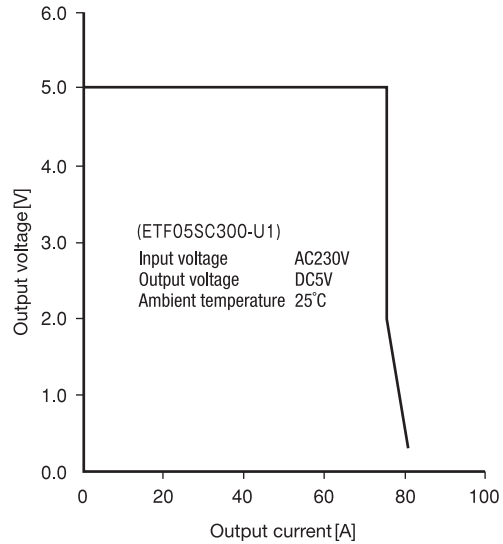
300W

(300W), Single output

■ Output current and efficiency curve



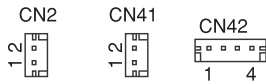
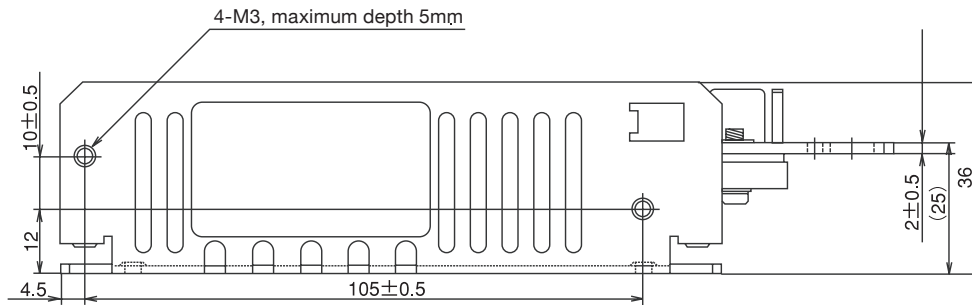
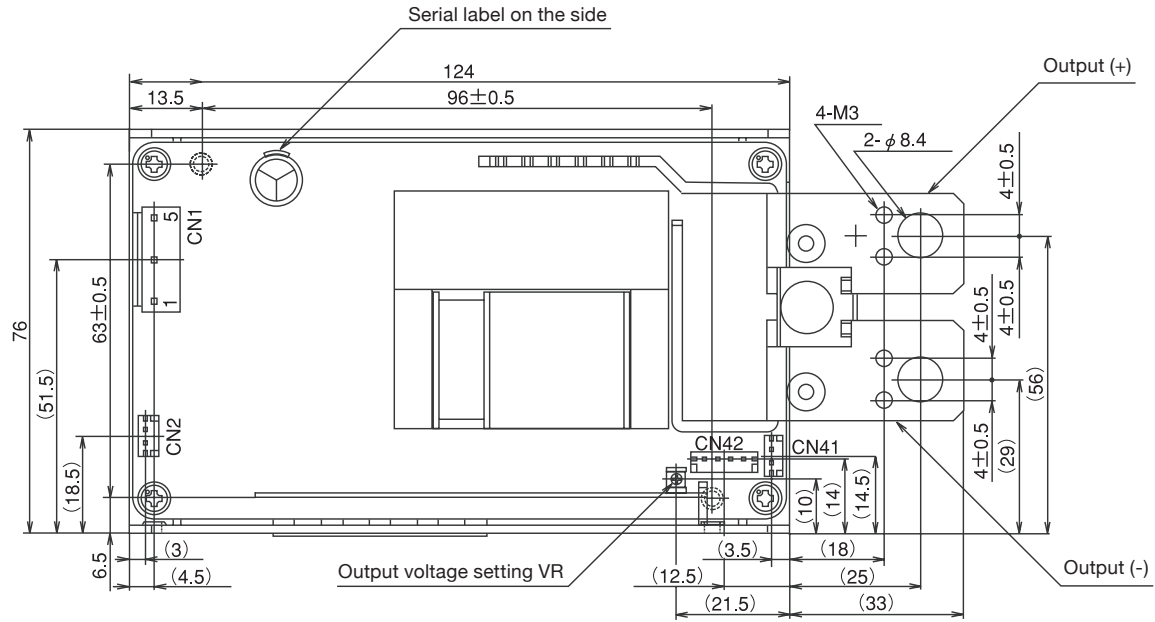
■ Overcurrent protection (OCP) curve





Dimension Diagram (mm)

300W



Connector joint

| Pin No. | CN1 | Pin No. | CN2 | Pin No. | CN41 | Pin No. | CN42 |
|---------|------|---------|------|---------|------|---------|------|
| 1 | +Vin | 1 | +RC1 | 1 | -S | 1 | AUX |
| 3 | -Vin | 2 | -RC1 | 2 | +S | 2 | +RC2 |
| 5 | RG | | | | | 3 | -RC2 |
| | | | | | | 4 | SG |

