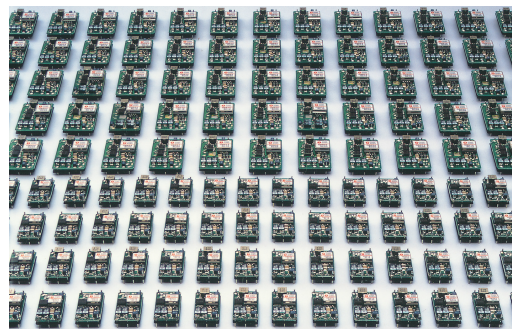




OBS-SC/WC

10W Open Frame



FEATURES:

In response to market demand for "DISTRIBUTED POWER," ETA has developed a new DC/DC converter suitable for PCB mounting. OB-Series AC/DC Switching Power Supplies are designed and built to be installed right onto the user's printed circuit board like a piece of "patch-work". They are small, light in weight and cost effective.

- PCB Mountable
- Small, Light Weight
- High Efficiency
- Cost effective
- Output Voltage adjustable
- Over Voltage Protection
- **Isolated Power Supply**



| MODEL/CHANNEL | | Unit | OBS05SC | OBS12SC | OBS15SC | OBS24SC | OBS22WC | OBS23WC | |
|------------------|-----------------------------|-------------------------------------|-------------------|---------|---------|---------|---------|---------|--|
| OUTPUT | Output Voltage | Vdc | 5 | 12 | 15 | 24 | ±12 | ±15 | |
| | Output Current | A | 2 | 0.9 | 0.7 | 0.45 | 0.45 | 0.35 | |
| | Voltage Tolerance | mV | 100 | 240 | 300 | 480 | 240 | 300 | |
| | Static Line Regulation max. | mV | 25 | 60 | 75 | 120 | 60 | 75 | |
| | Static Load Regulation max. | mV | 25 | 60 | 75 | 120 | ±1500 | ±1500 | |
| | Drift max. | mV | 40 | 75 | 90 | 135 | 75 | 90 | |
| | Dynamic Line Regulation | mV | 100 | 100 | 100 | 200 | 300 | 300 | |
| | Dynamic Load Regulation | mV | 200 | 400 | 300 | 500 | 300 | 300 | |
| | Recovery Time | mS | 10mS(typical) | | | | | | |
| | Temperature Coefficient | mV | 0.03%/°C(maximum) | | | | | | |
| Ripple and Noise | mVp | 100 | | | | | | | |
| Rise Time | mS | 10mS(typical) at rated input/output | | | | | | | |

| MODEL/CHANNEL | | Unit | OBS05 SC12 | OBS12 SC12 | OBS15 SC12 | OBS24 SC12 | OBS22 WC12 | OBS23 WC12 | |
|---------------|-------------------------|------|------------|------------|------------|------------|------------|------------|--|
| INPUT | Input Range Full Load | mA | 1042 | 1097 | 1040 | 1046 | 1097 | 1041 | |
| | Input Range No Load | mA | 32 | 37 | 39 | 42 | 44 | 47 | |
| | Efficiency (typical) *2 | % | 80 | 82 | 84 | 86 | 82 | 84 | |
| | Input Voltage | Vac | 12 | | | | | | |
| | Input Voltage Range | Vdc | 8-18 | | | | | | |
| | Line Back Noise | Hz | 500 | | | | | | |

| MODEL/CHANNEL | | Unit | OBS05 SC2448 | | OBS12 SC2448 | | OBS15 SC2448 | | OBS24 SC2448 | | OBS22 WC2448 | | OBS23 WC2448 | |
|---------------|-------------------------|------|--------------|-----|--------------|-----|--------------|-----|--------------|-----|--------------|-----|--------------|-----|
| INPUT | Input Voltage | Vac | 24 | 48 | 24 | 48 | 24 | 48 | 24 | 48 | 24 | 48 | 24 | 48 |
| | Input Range No Load | mA | 16 | 18 | 14 | 17 | 14 | 17 | 17 | 20 | 18 | 22 | 19 | 23 |
| | Input Range Full Load | mA | 520 | 262 | 542 | 274 | 520 | 263 | 523 | 268 | 542 | 277 | 520 | 263 |
| | Line Back Noise | Hz | 500 | 300 | 500 | 300 | 500 | 300 | 500 | 300 | 500 | 200 | 500 | 200 |
| | Efficiency (typical) *2 | % | 80 | 79 | 83 | 82 | 86 | 83 | 86 | 84 | 83 | 81 | 84 | 83 |
| | Input Voltage Range | Vdc | 18-72 | | | | | | | | | | | |

| MODEL/CHANNEL | | Unit | OBS05 SC2448 | | OBS12 SC2448 | | OBS15 SC2448 | | OBS24 SC2448 | | OBS22 WC2448 | | OBS23 WC2448 | | |
|------------------------|--------------------|---|--------------|------|--------------|-------|--------------|--|--------------|--|--------------|--|--------------|--|--|
| Protection | Trimming of Output | V | +250 | +250 | +350 | +650 | | | | | | | | | |
| | | V | -250 | -900 | -1600 | -4000 | | | | | | | | | |
| Overcurrent Protection | A | Foldback/Current Limiting with automatic recovery at discontinuous short circuit conditions | | | | | | | | | | | | | |



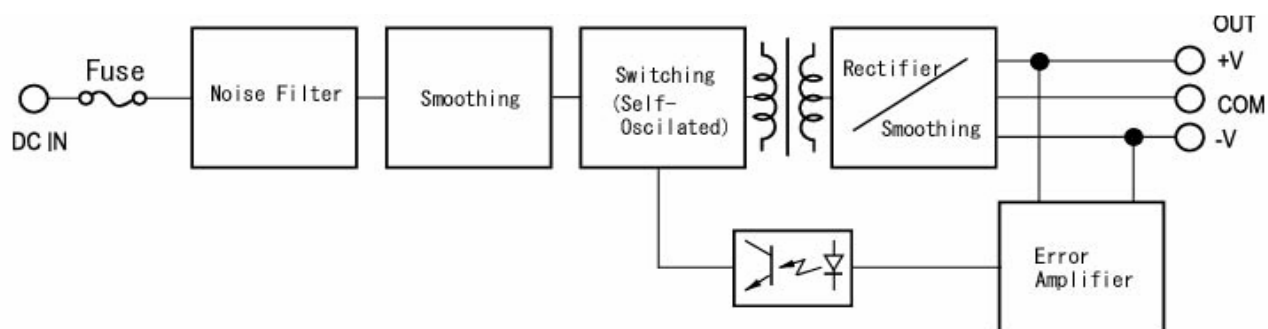


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The Power Professionals

| | MODEL/CHANNEL | Unit | |
|--------------------|-----------------------|------|--|
| Environment | Derating | - | 3.5%/°C (50°C to 71°C) (out of warranty \geq 71°C) |
| | Operating Temperature | °C | -20 to 71°C |
| | Operating Humidity | % | 20-90%/RH(non-condensing) |
| | Shock | - | 294m/s ² |
| | Cooling | - | Convection |
| | Input Fuse | - | Installed |
| | Storage Temperature | °C | -20 to +85°C |
| | Storage Humidity | % | 20 to 90%/RH(non-condensing) |
| | Withstanding Voltage | - | Primary-Secondary AC500V for 1 minute |
| | Isolation Resistance | - | Primary-Secondary 50MΩ(minimum) by DC500V insulation tester |
| | Capacitance | - | 4400 |
| | Vibration | - | 5-10Hz: 10mm double amplitude, 10-55Hz: 19.6m/s ² , 20 minutes period for 60 minutes each along X,Y,Z axes(non-operating) |
| Dimension | Size(WxHxD) / Weight | mm/g | 39.1Wx46Lx16.5H open board type/14g |

Model Diagram

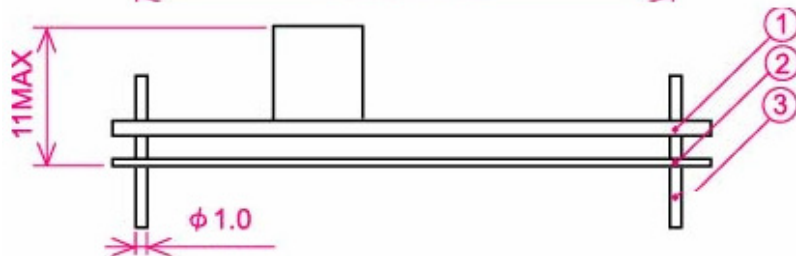
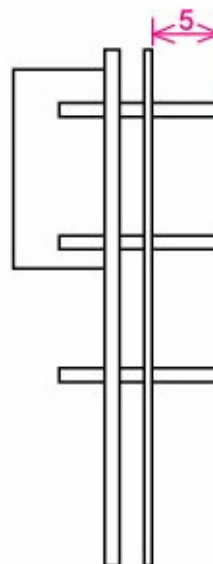
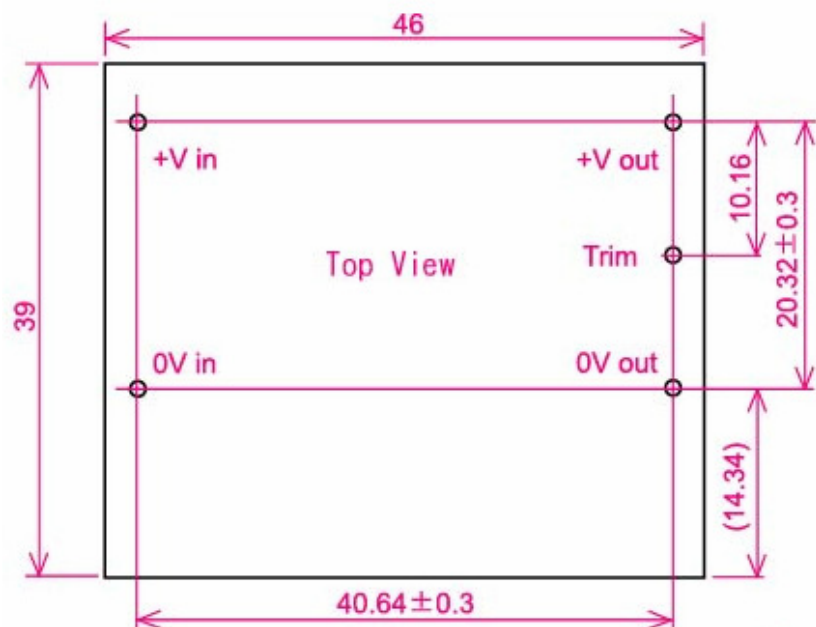


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Dimension Diagram (mm) 10W Open Frame

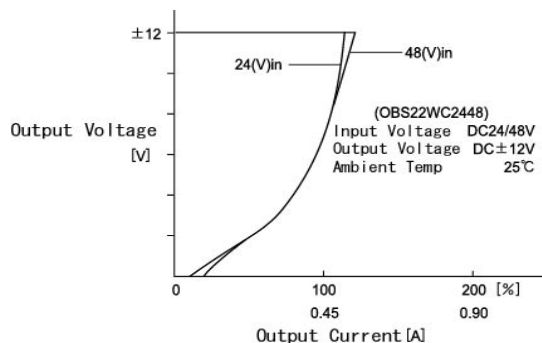


- ① Double-sided PCB FR4t=1.0
 - ② t=0.5 Insulator V0
 - ③ 1.0DIA PIN Material:BsB 2700 1/2H
Copper Plating 1~3 μm
Solder Plating 3~6 μm
- * Tolerance ±0.5

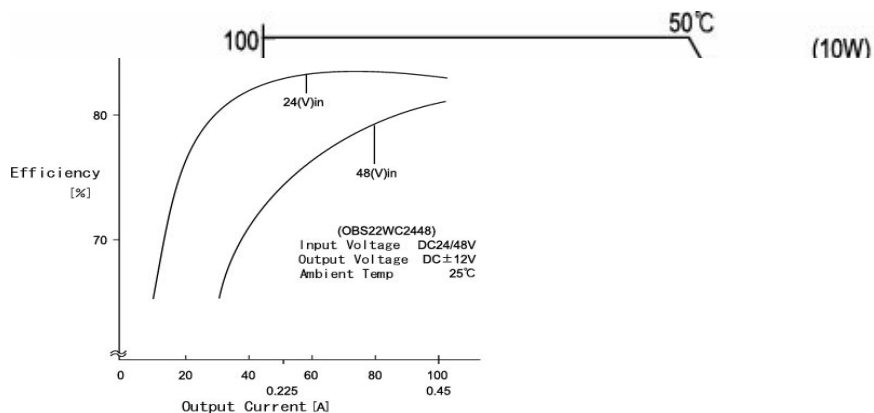




OCP Curve 10W Open Frame



Derating Curve 10W Open Frame



Efficiency \geq DC63V input

Curve OBS22WC2448

Efficiency Curve OBS22WC2448

