# POWER SUPPLY 1-PHASE, 48 V DC
# DIMENSION Q SERIES

QS10.481
PSU 100-240V ac I/P 48V dc 5A 240W O/P




- Output current of 5 A or 10 A
- From 60 mm wide
- Up to 94.3% efficiency
- 50% bonus power
- Maximum performance

## PRODUCT DESCRIPTION

The most outstanding features of this Dimension Q Series DIN-rail power supply are the high efficiency and the small size, which are achieved by a synchronous rectification and further novel design details.
With short-term peak power capability of 150% and built-in large sized output capacitors, these features help start motors, charge capacitors and absorb reverse energy and often allow a unit of a lower wattage class to be used.
High immunity to transients and power surges as well as low electromagnetic emission makes usage in nearly every environment possible.
The integrated output power manager, a wide range input voltage design and virtually no input inrush current make installation and usage simple.
Diagnostics are easy due to the dry DC-ok contact, a green DC-ok LED and red overload LED.
Unique quick-connect spring-clamp terminals allow a safe and fast installation and a large international approval package for a variety of applications makes this unit suitable for nearly every situation.

## SPECIFICATIONS

| | |
|---|---|
| Active Transient | Yes |
| Approvals | ABS, CB, CE, CSA, GL, UL |
| DC relay output | Yes |
| Depth | 117 |
| Effect | 240 |
| Efficiency At 120 V AC, full load. Typical | 91.2 |
| Efficiency At 230 V AC, full load. Typical | 92 |
| Efficiency At 230 V AC. Typical | 90.3 |
| Height | 124 |
| Hold-up time at 120 V AC, full load. Typical. | 27 |
| Hold-up time at 230 V AC, full load. Typical. | 28 |

| | |
|---|---|
| Input voltage AC | 100-240 V |
| Input voltage ac max | 276 |
| Input voltage ac min | 90 |
| Input voltage DC | 110-150 V |
| Input voltage dc max | 187 |
| Input voltage dc min | 88 |
| Input voltage range | Wide-range |
| Inrush current at 120 V ac typical | 4 |
| Inrush current at 230 V ac typical | 7 |
| IP Class | IP20 |
| Lifetime at 120 V ac, full load and +40 ° C | 67000 |
| Lifetime at 230 V ac, full load and +40 ° C | 81000 |
| MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C | 606000 |
| Number of phases | 1 |
| Output Current | 5 |
| Output voltage | 48 |
| Output voltage max | 56 |
| Output voltage min | 48 |
| Power Consumption At 120 V AC | 2.22 |
| Power Consumption At 230 V AC | 1.22 |
| Power Factor at 120 V AC, full load. Typical | 0.98 |
| Power Factor at 230 V AC, full load. Typical | 0.92 |
| Power Reduction Of 60 To 70 ° C | 6 |
| Ripple. max | 100 |
| Series | Dimension Q |
| Supply Frequency | 50-60 ±6 % |
| Temperature Range Without Derating From | -25 |
| Temperature Range Without Derating To | 60 |
| Weight | 0.9 |
| Width | 60 |

Fig. 6-1 **Output voltage vs. output current, typ.**

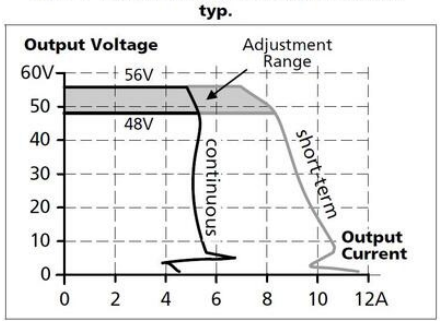



Fig. 15-1 **Output current vs. ambient temp.**

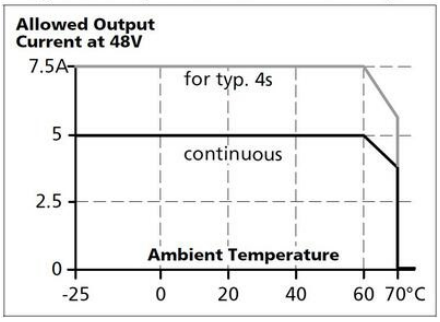



Fig. 9-1 **Efficiency vs. output current at 48V, typ.**

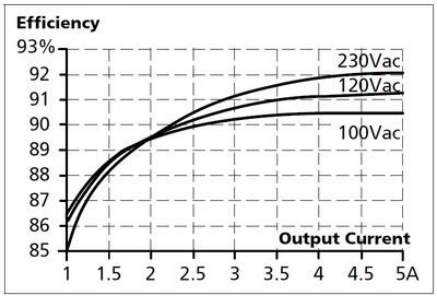



Fig. 9-2 **Losses vs. output current at 48V, typ.**

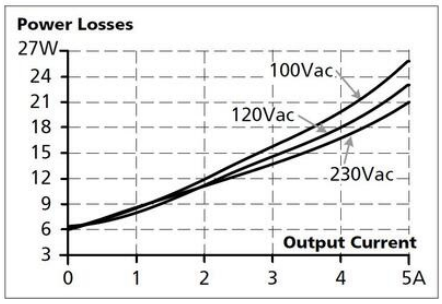
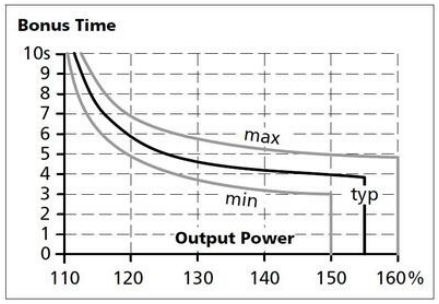



Fig. 6-2 **Bonus time vs. output power**



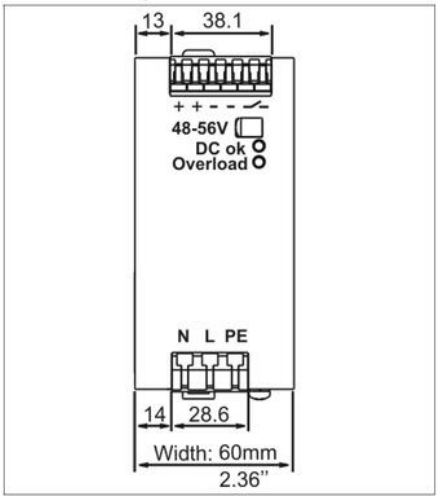

Maximal wire length*) for a fast (magnetic) tripping:

| | 0.75mm² | 1.0mm² | 1.5mm² | 2.5mm² |
|---|---|---|---|---|
| **C-2A** | 58m | 64m | 104m | 143m |
| **C-3A** | 41m | 53m | 73m | 124m |
| **C-4A** | 18m | 31m | 54m | 94m |
| **C-6A** | 10m | 14m | 21m | 33m |
| **C-8A** | 4m | 6m | 8m | 13m |
| **C-10A** | 3m | 4m | 7m | 10m |
| **B-6A** | 19m | 28m | 39m | 75m |
| **B-10A** | 8m | 12m | 16m | 29m |
| **B-13A** | 7m | 9m | 13m | 23m |

Fig. 13-1 **Front side**




Fig. 20-1 **Front view**




Side view

