

POWER SUPPLY 3-PHASE, 36 V DC DIMENSION Q SERIES

36-42 V DC, 26,7 A

QT40.361
 PSU 3PH 380-480V ac I/P 36V dc 26.7A 960W O/P

- Width 110mm
- Up to 95,3% efficiency
- 50 % Bonuspower 4s
- DC-OK Relay, active PFC, remote shut-down



PRODUCT DESCRIPTION

The most outstanding features of the DIMENSION QSeries DIN-rail power supplies are the extremely high efficiencies and the small sizes, which are achieved by a synchronous rectification and other technological designs.

Large power reserves of 150% support the starting of heavy loads such as DC-motors or capacitive loads. In many cases this allows the use of a unit from a lower wattage class which saves space and money.

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, the three input fuses and near zero input inrush current make installation and usage simple. Diagnostics are easy due to the DC-ok relay, a green DC-OK LED and the red overload LED.

A large international approval package for a variety of applications makes this unit suitable for nearly every application.

TECHNICAL DATA

INPUT DATA

| | |
|---|------------|
| Input voltage ac | 380-480 V |
| Input voltage ac min | 323 V AC |
| Input voltage ac max | 576 V AC |
| Inrush current at 400 V ac typical | 5 A |
| Input voltage range | Wide-range |
| Power factor at 400 V ac, full load. Typical | 0.88 |
| Number of phases | 3 |

OUTPUT DATA

| | |
|-----------------------|---------|
| Output voltage | 36 V DC |
|-----------------------|---------|

| | |
|---------------------------|---------|
| Output voltage min | 36 V DC |
| Output voltage max | 42 V DC |
| Output current | 26.7 A |
| Power | 960 W |

EFFICIENCY / LIFETIME / MTBF

| | |
|---|----------|
| Efficiency at 400 V ac, typical | 94.7 % |
| Efficiency at 400 V ac, full load, typical | 95.3 % |
| Lifetime at 400 V ac, full load and +40 ° C | 71000 h |
| MTBF (IEC 61709) 400 V ac, max load, +40 ° C | 375000 h |

DIMENSIONS

| | |
|---------------|--------|
| Width | 110 mm |
| Height | 124 mm |
| Depth | 127 mm |
| Weight | 1.5 kg |

OTHER

| | |
|---|-----------------|
| Approvals | CB, CE, CSA, UL |
| Hold time at 400 V ac, typical full load | 25 ms |
| IP class | IP20 |
| Clamp type | Spring-clamp |
| Material protection | Aluminium |
| Supply frequency | 50-60 ±6 % |
| Ripple max | 130 mV pp |
| Series | Dimension Q |
| Power consumption at 400 V ac | 1.65 A |
| Power drop from +60 °C to + 70 °C | 24 W/°C |
| Temperature min without derating | -25 °C |
| Temperature max without derating | 60 °C |

| | |
|-------------------------|-----|
| Active Transient | Yes |
| DC relay output | Yes |

Fig. 6-1 Output voltage vs. output current in "single use" mode, typ.

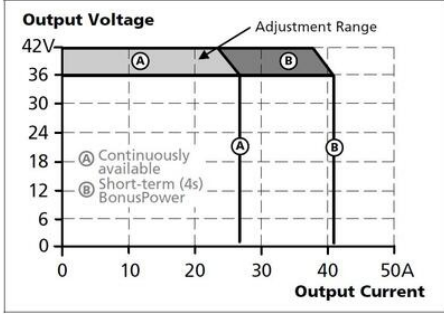


Fig. 6-4 Dynamic overcurrent capability, typ.

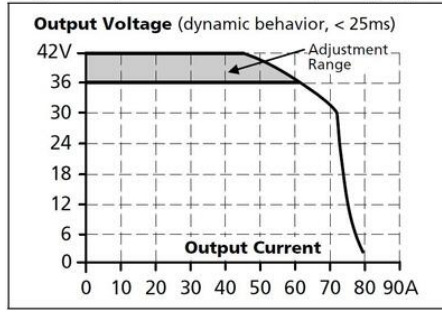


Fig. 17-1 Output current vs. ambient temp.

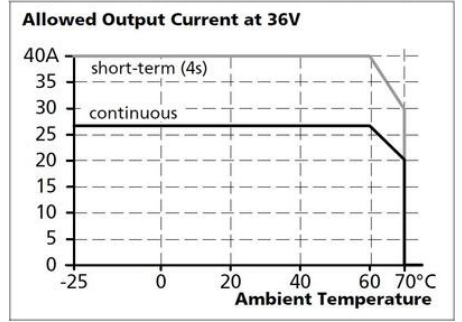


Fig. 6-3 Bonus time vs. output power

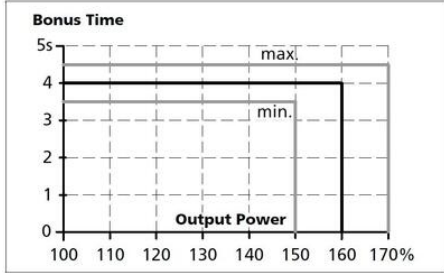


Fig. 11-1 Efficiency vs. output current at 36V, typ.

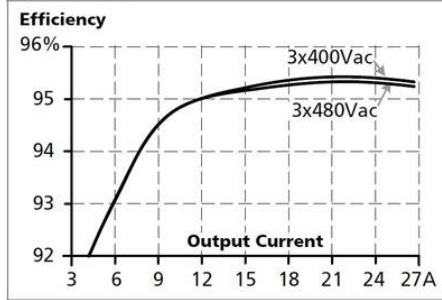
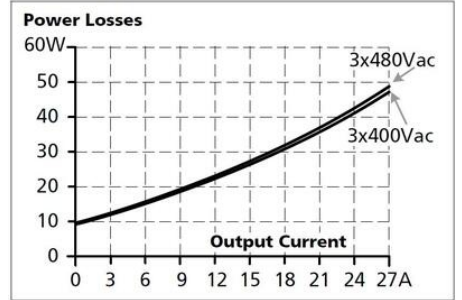


Fig. 11-2 Losses vs. output current at 36V, typ.



Maximal wire length¹⁾ for a fast (magnetic) tripping:

| | 0.75mm ² | 1.0mm ² | 1.5mm ² | 2.5mm ² |
|-------|---------------------|--------------------|--------------------|--------------------|
| C-2A | 51m | 63m | 101m | 143m |
| C-3A | 43m | 57m | 84m | 129m |
| C-4A | 34m | 44m | 64m | 103m |
| C-6A | 15m | 21m | 32m | 49m |
| C-8A | 8m | 11m | 14m | 25m |
| C-10A | 5m | 7m | 9m | 17m |
| C-13A | 2m | 3m | 4m | 8m |
| B-6A | 33m | 43m | 56m | 102m |
| B-10A | 18m | 24m | 37m | 55m |
| B-13A | 9m | 19m | 30m | 47m |
| B-16A | 4m | 6m | 9m | 14m |

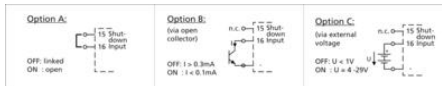


Fig. 15-1 Front side

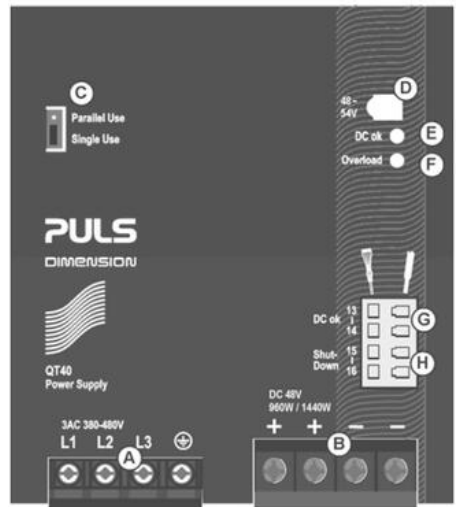


Fig. 22-1 Front view

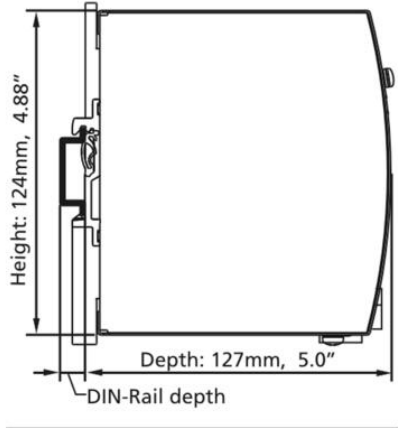
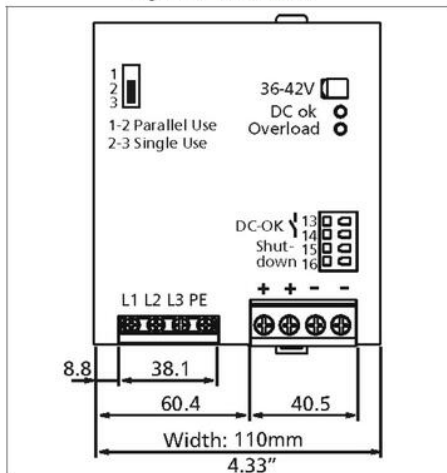


Fig. 6-1 Output voltage vs. output current in "single use" mode, typ.

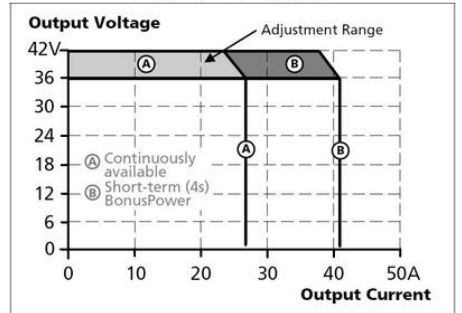


Fig. 6-4 Dynamic overcurrent capability, typ.

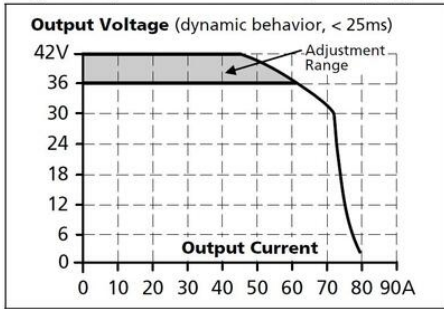


Fig. 17-1 Output current vs. ambient temp.

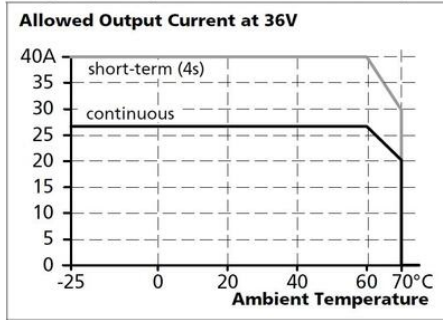


Fig. 6-3 Bonus time vs. output power

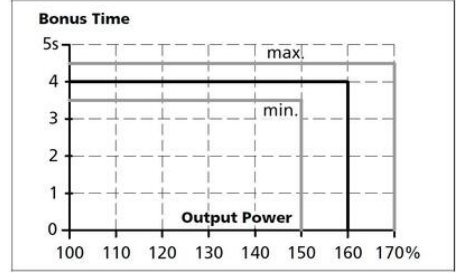


Fig. 11-1 Efficiency vs. output current at 36V, typ.

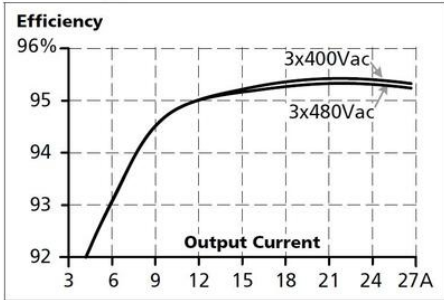
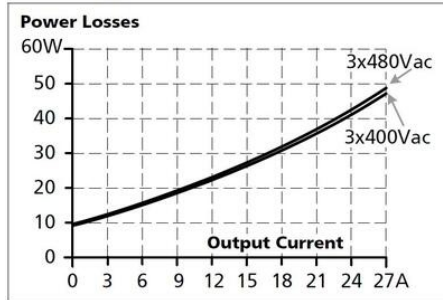


Fig. 11-2 Losses vs. output current at 36V, typ.



Maximal wire length¹⁾ for a fast (magnetic) tripping:

| | 0.75mm ² | 1.0mm ² | 1.5mm ² | 2.5mm ² |
|-------|---------------------|--------------------|--------------------|--------------------|
| C-2A | 51m | 63m | 101m | 143m |
| C-3A | 43m | 57m | 84m | 129m |
| C-4A | 34m | 44m | 64m | 103m |
| C-6A | 15m | 21m | 32m | 49m |
| C-8A | 8m | 11m | 14m | 25m |
| C-10A | 5m | 7m | 9m | 17m |
| C-13A | 2m | 3m | 4m | 8m |
| B-6A | 33m | 43m | 56m | 102m |
| B-10A | 18m | 24m | 37m | 55m |
| B-13A | 9m | 19m | 30m | 47m |
| B-16A | 4m | 6m | 9m | 14m |

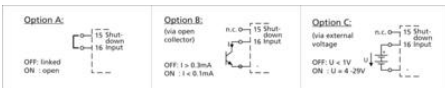


Fig. 15-1 Front side

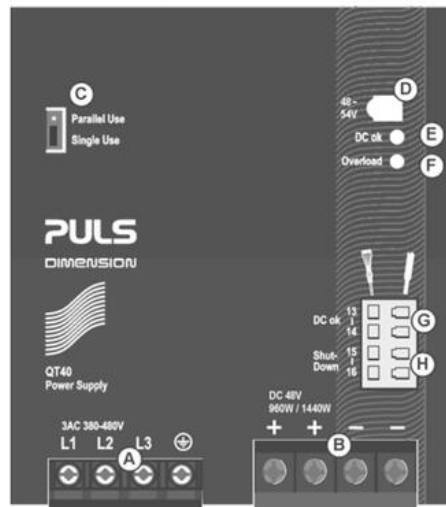


Fig. 22-1 Front view

