

POWER SUPPLY 3-PHASE, 24 V DC DIMENSION C SERIES

CT10.241 POWER SUPPLY 24VDC 10A 3 PHASE

- Output current of 10 A
- Up to 92.9% efficiency
- · High reliability
- Integrated primary fuses





PRODUCT DESCRIPTION

Puls Dimension C is a series of very high quality, reliability and performance.

CT10 has built primary fuses that make it possible to connect the unit without the need for intermediate fuses up to 32 A (UL) which saves space and money.

The efficiency is high over a wide load range, which results in reduced power consumption and longer life regardless of load current. A mean value of the efficiency from 50% to 100% load is 92.6% with a peak value of 93.2%.

The short circuit current is 3×10^{-2} x rated current for 20 ms, which helps secondary fuses. Power boost of 20% enables higher current extraction without voltage drops. This is especially useful during start-ups and to bridge the current peaks in the application. Power can be used continually up to +45°C and short periods from +45 to +60°C.

Active transient ensure operation also in very störrik electrical environment in addition, CT10 active inrush current protection, which means a very low starting current, even if the unit has been in operation for a longer time. Especially useful for redundant / parallel-connected systems.

Power supply connected with 3 stages but can operate on only two phases, taking into account the load and ambient temperature.

We recommend free space of 40 mm above and 20 mm under the power supply, and 5 mm at the sides.

SPECIFICATIONS

| Type Power Supply | AC-DC |
|-------------------------------|------------|
| Input voltage range | Wide-range |
| Power consumption at 400 V ac | 0,7 A |
| 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 | 4 A |
|---|---------------------------------------|
| Number of phases | 3 |
| | |
| Power Factor at 400 V AC, full load. Typical | 0,53 |
| Supply Frequency | 50-60 ±6 % |
| Ripple. max | 50 mV pp |
| Output voltage min | 24 V DC |
| Power Reduction Of 60 To 70 ° C | 6 W/°C |
| Temperature Range Without Derating From | -25 °C |
| Output voltage | 24 V DC |
| Output voltage max | 28 V DC |
| Effect | 240 W |
| Output Current | 10 A |
| Temperature Range Without Derating To | 60 °C |
| | |
| MTBF (IEC 61709) 400 V ac, max loan, +40 °C | 975000 h |
| Lifetime at 400 V ac, full load and +40 ° C | 54000 h |
| Efficiency At 400 V AC, full load. Typical | 92,8 % |
| Efficiency At 400 V AC. Typical | 92,2 % |
| Weight | 0,75 kg |
| Depth | 117 mm |
| Width | 62 mm |
| Height | 124 mm |
| | |
| Clamp type | Screw |
| IP Class | IP20 |
| Hold-up time at 400 V AC, full load. Typical. | 34 ms |
| Series | Dimension C |
| Approvals | ABS, CB, CE, CSA US, cRUus, cULus, GL |
| | |
| Material Protection | Aluminium |
| Active Transient | Yes |
| | |

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

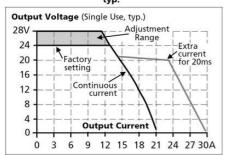


Fig. 14-1 Output current vs. ambient temp.

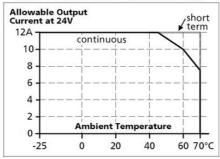


Fig. 8-1 Efficiency vs. output current at 24V, typ., 3-phase operation

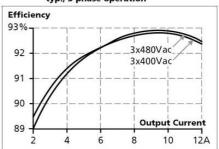


Fig. 8-2 Losses vs. output current at 24V, typ., 3-phase operation

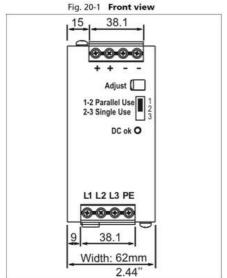
| Power Lo | osses | | | | | |
|----------------|----------|---------|-------------------|---------------|-------------------|-----------|
| 24W | | | - ₊ 3> | 400V | ac _I - | |
| 21 | | -i | _ i | _ i _ | | |
| 18 | <u>-</u> | -4- | -+- | -+- | | |
| 4- | | -1- | 1 | | 34/18 | OVac |
| 15 | | -+- | -+- | | - JA40 | Uvac |
| | 480Va | -+- | / | | | |
| | 480Va | ¢. | <u> </u> | | - - | |
| 12 - 3x | | | | | | |
| 12 - 3x 9 | | x400 | - + - | | | |
| 12 - 3x 9 - | | | - + - | utput | | |

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

| | 0.75111111 | 1.0mm | 1.5111111 | 2.5111111 |
|-------|------------|-------|-----------|-----------|
| C-2A | 23m | 28m | 43m | 69m |
| C-3A | 18m | 23m | 34m | 54m |
| C-4A | 6m | 12m | 18m | 28m |
| C-6A | 3m | 4m | 6m | 7m |
| C-8A | 2m | 3m | 4m | 5m |
| C-10A | 1m | 2m | 3m | 4m |
| B-6A | 9m | 14m | 19m | 33m |
| B-10A | 4m | 5m | 6m | 9m |
| B-13A | 3m | 4m | 5m | 8m |

Fig. 10-1 Front side





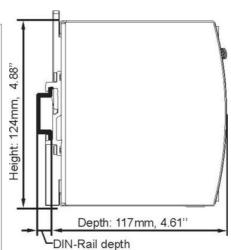


Fig. 6-1 Output voltage vs. output current,

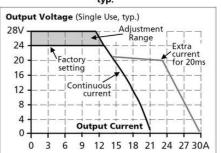


Fig. 14-1 Output current vs. ambient temp.

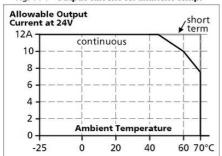


Fig. 8-1 Efficiency vs. output current at 24V, typ., 3-phase operation

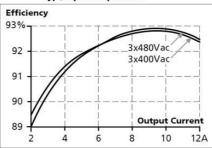
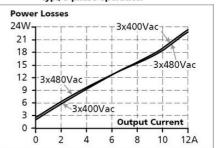


Fig. 8-2 Losses vs. output current at 24V, typ., 3-phase operation



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

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| | | | | |

