

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

CT10.241-C1 PSU 3PH 380-480V ac I/P 24V dc 10A 240W O/P Conf. Coated

- 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  $3 \times 10^{-2}$  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**

Input voltage range	Wide-range
Number of phases	3
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

Power Factor at 400 V AC, full load. Typical	0.53
Supply Frequency	50-60 ±6 %
Power consumption at 400 V ac	0.7 A
Type Power Supply	AC-DC
Output voltage	24 V DC
Output voltage min	24 V DC
Output voltage max	28 V DC
Output Current	10 A
Effect	240 W
Power Reduction Of 60 To 70 ° C	6 W/°C
Ripple. max	50 mV pp
Temperature Range Without Derating From	-25 °C
Temperature Range Without Derating To	60 °C
Efficiency At 400 V AC. Typical	92.2 %
Efficiency At 400 V AC, full load. Typical	92.8 %
Lifetime at 400 V ac, full load and +40 ° C	54000 h
MTBF (IEC 61709) 400 V ac, max loan, +40 °C	975000 h
Width	62 mm
Height	124 mm
Depth	117 mm
Weight	0.75 kg
	0.73 kg
Clamp type	Screw
Series	Dimension C
Approvals	ABS, CB, CE, CSA US, cRUus, cULus, GL
Material Protection	Aluminium
Hold-up time at 400 V AC, full load. Typical.	34 ms
IP Class	IP20
ii Cidoo	11 20
Active Transient	Yes

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

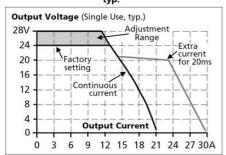


Fig. 14-1 Output current vs. ambient temp.

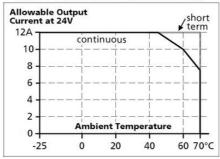


Fig. 8-1 Efficiency vs. output current at 24V, typ., 3-phase operation

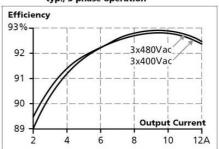


Fig. 8-2 Losses vs. output current at 24V, typ., 3-phase operation

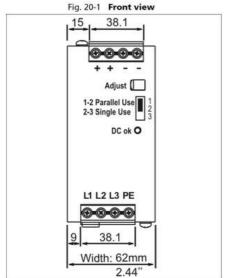
Power Lo	sses					
24W			+3x4	100V	ac <sub>7</sub> -	
21 —	-i	i	i	- i -		
18		Ļ	ļ	- <del> </del> -		
15		1	1		2,40	OVac
15		+	+-2	-	-3X40	UVac
	480Vac		_	1-	-3X40	
	480Vac		/		-3X46  -  -	 
12 -3x			+ 	- - - - - - - - - - -	-3x40  	   
12 -3x 9		100Va	+			   
12 - 3x		100Va	+	tput	-3x46 	   

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





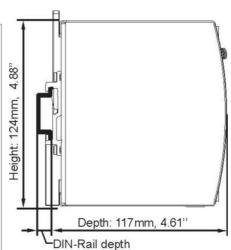


Fig. 6-1 Output voltage vs. output current,

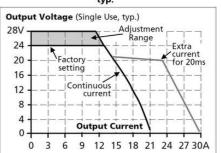


Fig. 14-1 Output current vs. ambient temp.

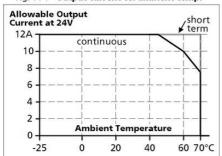


Fig. 8-1 Efficiency vs. output current at 24V, typ., 3-phase operation

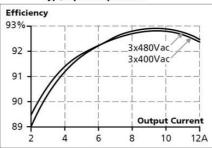
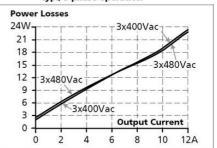


Fig. 8-2 Losses vs. output current at 24V, typ., 3-phase operation



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

	0.75mm <sup>2</sup>	1.0mm <sup>2</sup>	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>
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

