

## POWER SUPPLY 3-PHASE, 36 V DC DIMENSION X SERIES

36 V DC, 26,6 A, semi-regulated

XT40.361  
 PSU 3PH 400V ac I/P 36V dc 26.6A 960W O/P

- Width 96mm
- Up to 95,5% efficiency
- 125 % power boost
- Suitable for eg. supply for motors



### PRODUCT DESCRIPTION

The power supplies in the Dimension X-Series include a new and innovative concept for generating an isolated DC voltage from a three-phase mains system.

A semi-regulated resonant converter enables a very compact design, maximum efficiency and extremely competitive pricing with only a small compromise in the output voltage regulation, output ripple and hold-up time.

Weighing just 1.4 kg, the device provides 960 watts of continuous output power and an additional 25% power reserve for dynamic loads. The light-weight design along with compact dimensions facilitate straightforward mounting on DIN-rail.

Primary use are applications involving supplies to motors, valves and other load circuits with a high power consumption, where an accurate output voltage regulation which is standard on traditional switched-mode power supplies is not required. Furthermore, these switched-mode power supplies can often replace mains transformers with rectifiers.

### TECHNICAL DATA

#### INPUT DATA

Input voltage ac	400 V
Input voltage ac min	360 V AC
Input voltage ac max	440 V AC
Inrush current at 400 V ac typical	4 A
Power factor at 400 V ac, full load. Typical	0,93

#### OUTPUT DATA

Output voltage	36 V DC
Output voltage min	36 V DC

Output voltage max	36 V DC
Output current	26,6 A
Power	960 W

### EFFICIENCY / LIFETIME / MTBF

Efficiency at 400 V ac, full load, typical	95,5 %
MTBF (IEC 61709) 400 V ac, max loan, +40 °C	529000 h

### DIMENSIONS

Width	96 mm
Height	124 mm
Depth	159 mm
Weight	1,4 kg

### OTHER

Approvals	CB, CE, CSA, UL
Hold time at 400 V ac, typical full load	3 ms
IP class	IP20
Material protection	Aluminium
Supply frequency	50-60 ±6 %
Ripple max	250 mV pp
Series	Dimension X
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

Fig. 5-1 Output voltage vs. input voltage and input current

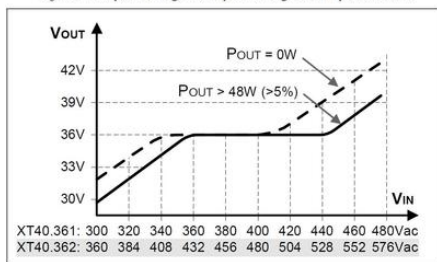


Fig. 7-1 Output voltage vs. output current, typ.

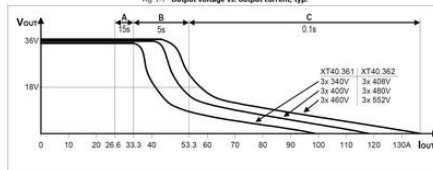


Fig. 15-1 Output current vs. ambient temp.,

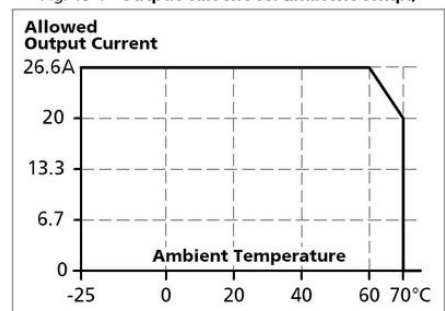


Fig. 9-1 Efficiency vs. output current

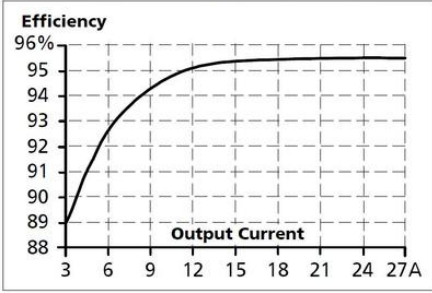
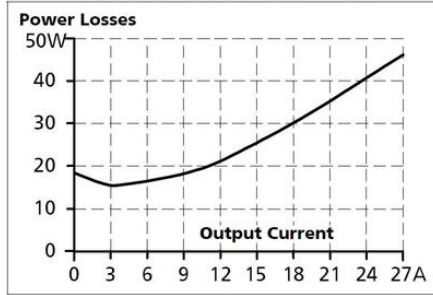


Fig. 9-2 Losses vs. output current



25. COMPARISON BETWEEN THE XT40, A TRANSFORMER AND A TRADITIONAL SWITCHED-MODE POWER SUPPLY

	XT40 Semi-regulated power supply	Traditional switched-mode power supply	Transformer power supply
Input voltage range	+	**	-
Inrush current surge	**	+	-
Hold-up time	-	+	-
Phase-loss operation	-	**	-
Efficiency	***	**	-
Output voltage regulation	+	**	-
Output adjustment range	-	**	-
Ripple & noise voltage	-	**	-
Error diagnostics	**	**	-
Harmonic distortion (PFC)	+	+	-
EMC	**	**	+
Ease of installation	**	**	-
Size	***	**	-
Weight	***	+	-

\*\*\* .very, very good    \*\* .very good    + .good    - .poor

Fig. 11-1 Front side of XT40.361



Fig. 22-1 Front view

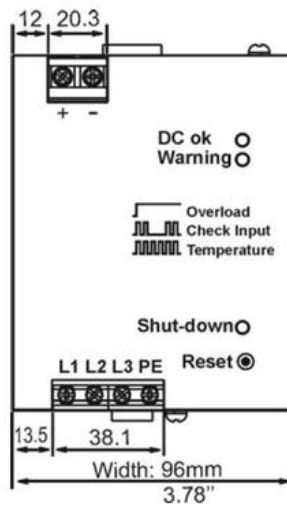


Fig. 22-2 Side view

