

# MEDIUM VOLTAGE POWER SUPPLIES THYRISTOR REGULATED

Series MYN from 650 V to 2000 V / 7kW to 70 kW

## FEATURES:

- Simple construction
- Extremely robust
- High efficiency
- Short circuit proof and unlimited operation with full current in short circuit condition
- Voltage and current regulation with automatic and sharp transition; control mode indicated by LEDs
- Voltage and current setting with 10-turn potentiometers with precision scale; the adjusting knob can be locked
- Limitation of inrush current on switching on
- Suitable also for inductive and capacitive loads
- Interlock loop to monitor the external load and internal loop as a standard
- Elapsed-hour meter as a standard

## FUNCTION:

A transformer is used to transform the mains supply to high voltage. Either on the primary side or on the secondary side of this transformer a phase controlled thyristor rectifier circuit is fitted. A series LC filter is used to smooth the resulting rectified voltage.

## DESIGN:

- Depending on voltage and power, the units are built as single or double 19" cabinets of various height. The side covers are detachable, the rear door is lockable.
- All cabinets are equipped with fork-lift-compatible plinths and removable crane-eyes.
- Single 19"-cabinets up to 38U are easily transportable by fork-lift.
- Cooling is carried out via convection or built-in fans, with the air being exhausted (depending upon type) either via the rear or the top.

## OUTPUT:

- **Output isolation:** The output is floating with isolation voltage  $\pm 2000V$  against



Design Example  
 MYN 14000 - 650  
 650V / 20A



Design Example  
 MYN 105000 - 1500  
 1500V / 70A

earth. Either the positive or the negative terminal may be connected to earth. (Not valid with the option analog programming)

- **Output terminals:** All output terminals are located at the rear side of the cabinet. For Output current up to 10A high voltage connectors with the appropriate dielectric strength are installed. Mating connectors are delivered with the power supply. For higher current feed through terminals or bus bars.

## TECHNICAL DATA:

- **Mains connection:** 400V  $\pm 10\%$  47Hz to 53Hz, three-phase
- **Ambient temperature:** 0°C to +40°C

The following data applies for voltage and current regulation, and refers to the rated value (unless otherwise stated): (For explanations please refer to Definitions and Terms on page 54.)

- **Setting range:** from approx. 1% to 100%
- **Setting resolution:**  $\pm 1 \times 10^{-4}$
- **Residual ripple (0 - 10MHz):**  $< 1 \times 10^{-2} \text{pp} + 100 \text{mVpp}$
- **Recovery time:** <100ms to 500ms (depending on type) for load variations of  $\pm 10\%$
- **Setting time at nominal load:** <100ms to 2sec (depending on type) for chang-

es of the output voltage from 10% to 90% or 90% to 10%

- **Discharge time constant for output without load:** approx. 5sec. to 60sec., depending on type
- **Deviation:**  
 For  $\pm 10\%$  mains voltage variation:  
 $< \pm 1 \times 10^{-4}$   
 For no load / full load:  $< \pm 1 \times 10^{-3}$   
 Over 8 hours under constant conditions:  
 $< \pm 3 \times 10^{-4}$   
 Within the temperature range:  
 $< \pm 3 \times 10^{-4} / K$

## POSSIBLE OPTIONS:

- Analog programming (One of the outputs on "0V" - potential; see also page 44)
- Analog programming, floating (see page 44)
- Computer interfaces - IEEE 488, RS 232, RS 422, Profibus DP, USB, LAN (more on request) (see page 46)
- Internal resistance setting and regulation (see page 48)
- Power regulation with display (see page 48)
- Roller blades for cabinet units

More options and special solutions on request. Some options may involve changes to the description of the unit - especially concerning the mechanical design.

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TYPE	VOLTAGE	CURRENT	WIDTH	HEIGHT	DEPTH	WEIGHT
MYN 21000 - 650	0 - 650 V	0 - 30 A	19" / 600 mm	38 HE / 2000 mm	800 mm	480 kg
MYN 28000 - 650	0 - 650 V	0 - 40 A	19" / 600 mm	38 HE / 2000 mm	800 mm	600 kg
MYN 35000 - 650	0 - 650 V	0 - 50 A	19" / 600 mm	38 HE / 2000 mm	800 mm	800 kg
MYN 70000 - 650	0 - 650 V	0 - 100 A	19" / 600 mm	38 HE / 2000 mm	800 mm	1400 kg
MYN 21000 - 1250	0 - 1250 V	0 - 15 A	19" / 600 mm	38 HE / 2000 mm	800 mm	480 kg
MYN 28000 - 1250	0 - 1250 V	0 - 20 A	19" / 600 mm	38 HE / 2000 mm	800 mm	600 kg
MYN 35000 - 1250	0 - 1250 V	0 - 25 A	19" / 600 mm	38 HE / 2000 mm	800 mm	800 kg
MYN 70000 - 1250	0 - 1250 V	0 - 50 A	19" / 600 mm	38 HE / 2000 mm	800 mm	1400 kg
MYN 21000 - 2000	0 - 2000 V	0 - 10 A	19" / 600 mm	38 HE / 2000 mm	800 mm	480 kg
MYN 28000 - 2000	0 - 2000 V	0 - 12 A	19" / 600 mm	38 HE / 2000 mm	800 mm	600 kg
MYN 35000 - 2000	0 - 2000 V	0 - 15 A	19" / 600 mm	38 HE / 2000 mm	800 mm	800 kg
MYN 50000 - 2000	0 - 2000 V	0 - 25 A	19" / 600 mm	38 HE / 2000 mm	800 mm	1200 kg

Mating high voltage connectors for units with up to 10A output current are included in the scope of delivery. Mating high voltage cables you'll find beginning with page 51.

For units with higher output currents, the output will be carried out according to your wishes so that your load can be optimally connected