

# THYRO-AX

## Universally applicable

Power Controller Thyro-AX, are used in every field of modern process technology. For example, furnace buildings (industrial and diffusion furnaces, drying ovens), machine buildings (extrusion and plastic presses), the chemical industry (pipe-heating and pre-heating systems), the automobile industry (paint-drying facilities), printing buildings (IR drying) and the packaging industry (shrink tunnels).



The Thyro-AX units are electronic controllers with antiparallel thyristors for AC or 3-phase current switching. They are activated by a set-value signal and control or switch the electrical power for a load rapidly, reliably and contact free. Switching is performed either in the Thyrotakt full oscillation cycle mode (i.e. complete mains cycles are either switched on or off), or in the Thyrovar phase-angle mode. The Thyro-AX provides the most important basic functions, and additional control possibilities, and monitoring and signaling functions.

The following functions can be set by means of DIP-FIX switches and potentiometers: operating mode, load type, set-value input e.g. 0 - 20mA/0 -5V, control initiation "life zero" of the control characteristic line, control method, load monitoring.

### Key Features

- Electrical protection separation between power and ncontrol section that meets VDE 0160
- Connection to SELV circuit

- High efficiency
- Wear-free operation
- Integrated semiconductor fuses
- Integrated load-circuit and self monitoring
- Integrated soft start for operation with downstream transformer
- Centralized fault indication via fault-signaling relay and LED indicator
- Synchronization of several thyristor controllers possible in Thyrotakt mode
- Quality standard to ISO 9001
- CE - compliant

# THYRO-AX

## Universally applicable

### SPECIFICATION

<b>Type</b>	<b>3AX</b>
<b>Series</b>	<b>AX</b>
<b>Rated connected voltage (V)</b>	-
<b>Type current 400V (A)</b>	30; 50; 80; 110 170; 280
<b>Type current 500V (A)</b>	40; 80; 110 170; 280
<b>Circuit</b>	3-phase
<b>Operating mode</b>	- Thyrovar
<b>Control functions</b>	U <sup>2</sup> voltage I <sup>2</sup> current P power
<b>Load-circuit monitoring</b>	
<b>In Thyrotakt mode</b>	-
<b>Thyro-A monitoring</b>	yes
<b>Operation indication</b>	via LED
<b>Fault signal</b>	via LED fault-signal relay
<b>Frequency</b>	50, 60 Hz ± 3 Hz ± 15%
<b>Applicable for</b>	ohmic load, transformer load
<b>Set-value input</b>	0 – 20mA ; 0 – 5V
<b>Control initiation "Life zero"</b>	adjustable
<b>Operating-temperature range</b>	
- to type current 170A	-10°C to +45°C
- to type current 280A	-10°C to +35°C
<b>Storage-temperature range</b>	
<b>Humidity class</b>	DIN 40040 "F"
<b>Installation height</b>	max. 1000 m amsl at nominal load
<b>Test voltage</b>	to VDE 0160 table 6
<b>Conditions of use</b>	fitted unit designed to VDE 0160 5.5.1.3
<b>Contamination category</b>	2 to VDE 0106 part 100
<b>Overvoltage category</b>	ÜIII to VDE 0110 part 1
<b>Safe isolation</b>	VDE 0160 5.6
<b>Location of use</b>	VDE 0875 part 3
<b>Design</b>	VDE 0558 part 1
<b>Installation</b>	vertical
<b>Size W x H x D (mm)</b>	
<b>30A; 40A; 50A</b>	210x223x135
<b>80A; 110A</b>	255x223x170
<b>170A</b>	431x320x280
<b>280A</b>	431x320x280
<b>Connections</b>	from below

**AEG SVS**  
**Power Supply Systems GmbH**  
**A company of Saft Power Systems**  
 Emil-Siepmann-Straße 32  
 D-59581 Warstein-Belecke  
 Telefon : +49(0)2902/763-278  
 Telefax : +49(0)2902/763-1201  
 http : //www.aegsvs.de

  
 POWER SYSTEMS  
 www.saftpowersystems.com

*Power  
Reliability*

Realization : Mediagerance.com - AEG Doc N°09.03.027.2