

THYRISTOR SWITCH THYRO-S

CONTACT-FREE AND SAFE

The thyristor switches of type Thyro-S, are ideal for modern process technology. This includes the following applications: furnace building (industrial and diffusion furnaces, drying ovens) machine building (extrusion and plastic presses), the chemical industry (pipe-heating and pre-heating systems), glass manufacture and processing (melting, sheet-glass plant, feeder and refining plant), the automobile industry (paint-drying facilities), printing machines (IR drying) and the packaging industry (shrink tunnels).

The Thyro-S units are electronic switches with antiparallel thyristors which can be used singly or in groups of two or three for AC or 3-phase current. They are activated by a logic signal e.g. a temperature controller and secure the power supply for an ohmic consumer rapidly, reliably and free of contact. This is carried out in the Thyrotakt full oscillation cycle mode (i.e. complete mains cycles are either switched on or off).



- Secure isolation between control and power units (VDE 0160)
- Three-phase structure through combination of two or three Thyro-S units
- High efficiency
- Wear-free operation
- Integrated semiconductor fuses
- UL approved
- Thyro-S, type S – HR and S – HT
- Integrated load-circuit and self monitoring
- Type S – HR: central fault signal via relay (changeover switch)
- Type S – HT: central fault signal via transistor (open collector)
- Fault signal via LED
- Quality standard to ISO 9001
- CE-compliant



THYRISTOR SWITCH THYRO-S



TECHNICAL DATA

TYPE	Type S – HR	Type S – HT	Type S – H
Rated connected voltage	(application range) 230 V: 184 – 276 V; 400 V: 320 – 480 V; 500 V: 400 – 550 V		
Type current	230; 400 V: 30; 45; 60; 100 A – 500 V: 40; 60; 100 A		
Operating mode	Thyrotakt		
Set-value input	DC: "Off": 0 – 1.5 V "On": 3.5 – 30 V	DC: "Off": 0 – 1.5 V "On": 3.5 – 30 V	DC: "Off": 0 – 1 V "On": 3.5 – 35 V AC: "Off": 0 – 5 V "On": 15 – 110 V
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Load-circuit monitoring	undercurrent	undercurrent	–
Thyro-S monitoring	yes	yes	–
Fault signal	via LED, fault-signal relay (changeover switch)	via LED, transistor (open collector)	–
Frequency	50 ; 60 Hz ± 3 Hz		
Applicable for	ohmic load		
Switch processes	single-phase AC voltage, three-phase economy, three-phase AC voltage with N conductor, 3 x single-phase AC voltage		
Operating-temperature range	– 10°C to + 45°C		
Storage-temperature range	– 25°C to + 70°C		
Humidity class	DIN 40040 "F"		
Installation height	max. 1000 m amsl at nominal load		
Test voltage	to VDE 0160 table 6		
Conditions of use	fitted unit designed to VDE 0160 5.5.1.3		
Contamination category	2 to VDE 0106 part 100		
Overvoltage category	UIII to VDE 0110 part 1		
Safe isolation	VDE 0160 5.6		
Location of use	VDE 0875 part 3		
Design	VDE 0558 part 1		
UL approval	UL file E 135074		
Installation	vertical		
Fitting	top-hat rail, standard 35 mm (optional)		
Size w x h x d (mm)			
30 A; 40 A; 45 A	70 x 165 x 135	70 x 165 x 135	70 x 165 x 135
60 A; 100 A	85 x 165 x 170	85 x 165 x 170	85 x 165 x 170
Connections	from below		

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