

## Switches

# PPS-TH91

## Solid state high voltage, high current switch for pulsed power applications

### General Applications:

- Environmental systems (De-NOx/SOx electrofilters)
- Thyatron replacement
- Material desintegration
- Food sterilization
- Magnetic forming
- Medical systems
- Security systems
- Beam accelerators
- Seismic research

### Features :

- DC charge voltage up to 30kV
- Pulse current up to 50kA
- High pulse repetition rate
- Current rise rate up to 30kA/ $\mu$ s
- Reverse conducting with monolithic integrated free wheel diode
- Reverse blocking version available on request
- Immune to vibration compared to thyatron
- Any mounting position possible comparing to thyatron
- Convection, forced air or liquid cooling
- Liquid cooling for high rep. rate applications
- Convection, forced air cooling on request
- Ready to use with integrated power supply, monitor and driving system



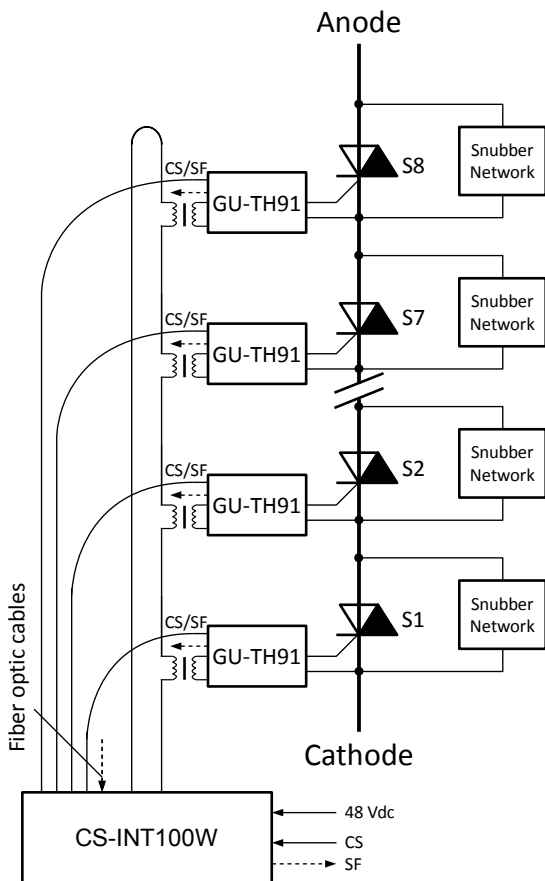
Example of a 20kV, 13kA 300Hz, 10kA/ $\mu$ s Switch Assembly



## Technical specification of 20kV switch AA-10375-008

Parameter	Symbol	Remarks	Min.	Typ.	Max.	Unit
Operating voltage	V	Working voltage for 100 FIT (Element)	-	-	25	kVDC
Pulse current	I	Single pulse (10 $\mu$ s)	-	-	50	kA
Current rise rate	di/dt		-	-	30	kA/ $\mu$ s
Leakage current	I <sub>leak</sub>		-	-	10	mA
Number of levels	n		-	8	-	pcs
Cooling system	-	water cooled			50	l/min.
Operating temperature			5	-	60	°C
Storage temperature			-25	-	85	°C
Logic power supply	V <sub>Logic</sub>		48	48	72	VDC

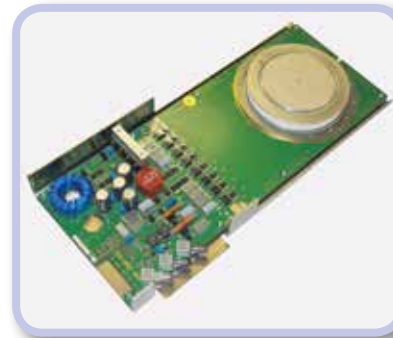
### Diagram



### Details



Power Supply / Light Interface: CS-INT100W



Gate Unit GU-TH91  
with Power Semiconductor Device

Order code	Description	Version
AA-10375-002	PPS-TH91-2-26L4599	PPS with AZ-91 element, 2-level
...	...	...
AA-10375-010	PPS-TH91-10-26L4599	PPS with AZ-91 element, 10-level