



**TANGO**  
Device  
Server

# **Linac Gun High Voltage Power Supply User's Guide**

## **LinacGunHVPS Class**

**Revision: LinacGunHVPS-Release\_1\_0\_1 - Author: vedder**  
**Implemented in C++ - CVS repository: ESRF**

### **Introduction:**

The high voltage power supply will provide high voltage to the gun of the linac.

### **Class Inheritance:**

- Tango::Device\_4Impl
  - LinacGunHVPS

### **Class Description:**

## Properties:

<b>Device Properties</b>		
<b>Property name</b>	<b>Property type</b>	<b>Description</b>
<b>Daresbury</b>	Tango::DEV_STRING	Name of the daresbury device.
<b>HighVoltage_adc</b>	Tango::DEV_STRING	ADC device to get the High Voltage.
<b>HighVoltage_dac</b>	Tango::DEV_STRING	DAC device to set the High Voltage.
<b>Interlocks_list</b>	Array of double	list of interlocks.
<b>Offrelay</b>	Tango::DEV_STRING	Name of the relay used to switch off the HVPS.
<b>Onrelay</b>	Tango::DEV_STRING	Name of the relay used to switch on the HVPS.
<b>Pulsetime</b>	Tango::DEV_LONG	Duration in milliseconds of the pulse to do on the pulsed relays.
<b>Stateonnum</b>	Tango::DEV_DOUBLE	number of the interlock relay used to determine whether the device is on or not.
<b>Statepermnum</b>	Tango::DEV_DOUBLE	Daresbury relay number which indicates if the device is allowed to be switched On.
<b>Current_adc</b>	Tango::DEV_STRING	Adc device to get the HV current.

## Device Properties Default Values:

<b>Property Name</b>	<b>Default Values</b>
Daresbury	No default value
HighVoltage_adc	No default value
HighVoltage_dac	No default value
Interlocks_list	No default value
Offrelay	No default value
Onrelay	No default value
Pulsetime	No default value
Stateonnum	No default value
Statepermnum	No default value
Current_adc	No default value

**There is no Class properties.**

## States:

<b>States</b>	
<b>Names</b>	<b>Descriptions</b>
<b>ON</b>	*
<b>OFF</b>	*
<b>DISABLE</b>	*
<b>FAULT</b>	

## Attributes:

<b>Scalar Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>R/W Type</b>	<b>Expert</b>
<b>HighVoltage</b>	DEV_DOUBLE	READ_WRITE	No
<b>Current</b>	DEV_DOUBLE	READ	No

## Commands:

More Details on commands....

<b>Device Commands for Operator Level</b>		
<b>Command name</b>	<b>Argument In</b>	<b>Argument Out</b>
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING
<b>On</b>	DEV_VOID	DEV_VOID
<b>Off</b>	DEV_VOID	DEV_VOID
<b>Reset</b>	DEV_VOID	DEV_VOID

## 1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection. After an Init command executed on a device, it is not necessary for client to re-connect to the device. This command first calls the device *delete\_device()* method and then execute its *init\_device()* method. For C++ device server, all the memory allocated in the *nit\_device()* method must be freed in the *delete\_device()* method. The language device desctructor automatically calls the *delete\_device()* method.
- **Argin:**  
**DEV\_VOID** : none.
- **Argout:**  
**DEV\_VOID** : none.
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::DISABLE
  - Tango::FAULT

## 2 - State

- **Description:** This command gets the device state (stored in its *device\_state* data member) and returns it to the caller.
- **Argin:**  
**DEV\_VOID** : none.
- **Argout:**  
**DEV\_STATE** : State Code
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::DISABLE
  - Tango::FAULT

## 3 - Status

- **Description:** This command gets the device status (stored in its *device\_status* data member) and returns it to the caller.
- **Argin:**  
**DEV\_VOID** : none.
- **Argout:**

**CONST\_DEV\_STRING** : Status description

- **Command allowed for:**

- Tango::ON
- Tango::OFF
- Tango::DISABLE
- Tango::FAULT

## **4 - On**

- **Description:**

- **Argin:**

**DEV\_VOID** :

- **Argout:**

**DEV\_VOID** :

- **Command allowed for:**

- Tango::ON
- Tango::OFF
- Tango::DISABLE
- Tango::FAULT

## **5 - Off**

- **Description:**

- **Argin:**

**DEV\_VOID** :

- **Argout:**

**DEV\_VOID** :

- **Command allowed for:**

- Tango::ON
- Tango::OFF
- Tango::DISABLE
- Tango::FAULT

## **6 - Reset**

- **Description:**

- **Argin:**

**DEV\_VOID :**

- **Argout:**

**DEV\_VOID :**

- **Command allowed for:**

- Tango::ON
- Tango::OFF
- Tango::DISABLE
- Tango::FAULT

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