

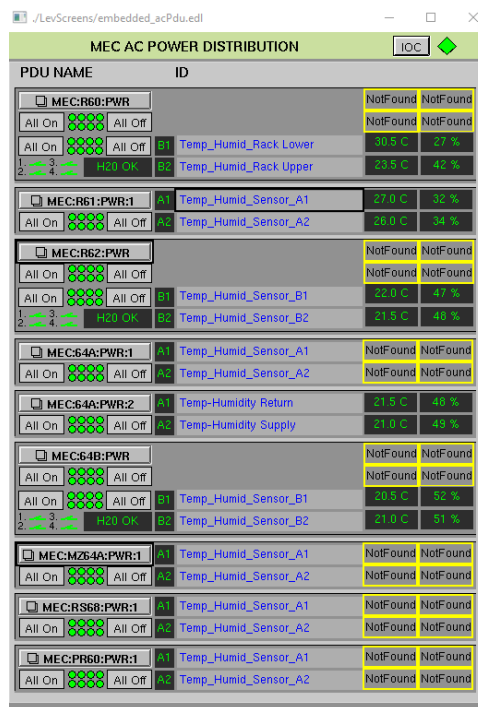
# Glass Laser Full Power Shutdown Procedure

## To start Python from a terminal

- ssh mec-laser
- mecpython
- from mecps import \*

## Using a Python Terminal

- From a Python Terminal type YFEoff()
  - This will shut down:
    - eDrives (eDrives will have AC power, but drive current is ramped down to Zero)
    - Vacuum Scroll Pump (AC power off)
    - Pockels Cell Driver YFE Out (AC power off)
    - Pockels Cell Driver YFE PS1 HV (AC power off)
- At Epics MEC Home Main Page
  - >User Devices
  - >AC PDU
  - >Selec MEC:64B:PWR



The screenshot shows a window titled "/LevScreens/embedded\_acPdu.edi" with a sub-header "MEC AC POWER DISTRIBUTION" and an "IOC" button. The main content is a table with columns for PDU NAME, ID, and two columns of sensor data (Temperature and Humidity). The table is organized into sections for different PDU units, each with an "All On" and "All Off" status indicator and a "H2O OK" indicator. The sensor data is as follows:

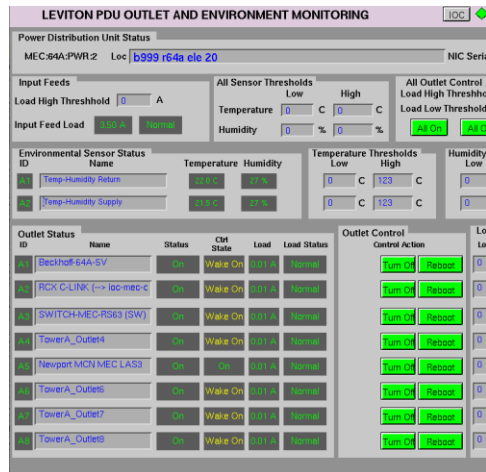
| PDU NAME         | ID | Temp                 | Humid       |
|------------------|----|----------------------|-------------|
| MEC:R60:PWR      |    | Not Found            | Not Found   |
| MEC:R61:PWR:1    | A1 | 27.0 C               | 32 %        |
| MEC:R61:PWR:1    | A2 | 26.0 C               | 34 %        |
| MEC:R62:PWR      |    | Not Found            | Not Found   |
| MEC:64A:PWR:1    | A1 | Temp_Humid_Sensor_A1 | Not Found   |
| MEC:64A:PWR:1    | A2 | Temp_Humid_Sensor_A2 | Not Found   |
| MEC:64A:PWR:2    | A1 | Temp-Humidity Return | 21.5 C 49 % |
| MEC:64A:PWR:2    | A2 | Temp-Humidity Supply | 21.0 C 49 % |
| MEC:64B:PWR      |    | Not Found            | Not Found   |
| MEC:64B:PWR      | B1 | Temp_Humid_Sensor_B1 | 20.5 C 50 % |
| MEC:64B:PWR      | B2 | Temp_Humid_Sensor_B2 | 21.0 C 51 % |
| MEC:M26-4A:PWR:1 | A1 | Temp_Humid_Sensor_A1 | Not Found   |
| MEC:M26-4A:PWR:1 | A2 | Temp_Humid_Sensor_A2 | Not Found   |
| MEC:RS68:PWR:1   | A1 | Temp_Humid_Sensor_A1 | Not Found   |
| MEC:RS68:PWR:1   | A2 | Temp_Humid_Sensor_A2 | Not Found   |
| MEC:PR60:PWR:1   | A1 | Temp_Humid_Sensor_A1 | Not Found   |
| MEC:PR60:PWR:1   | A2 | Temp_Humid_Sensor_A2 | Not Found   |

- At Epics "MEC:64B:PWR" pop out page

- Turn off “B1” Highland
- Turn off “B7” LeCroy A
- Turn off “B8” MBC Bias Controller
- Turn off “A1” Newport LAS XPS4



- At Epics “MEC:64:PWR2” pop out page
  - Turn off “A5” Newport MCN MEC LAS3



- Next proceed to:
  - Step 1 listed below (Verify Emission Light of each eDrive is Off)
  - Step 2 listed below
  - Step 3 listed below
  - Step 6 listed below
- Turn off the “Rock” seed laser as described below in Step 5
- Turn off “LeCroy B” as described below in Step 5
- Turn off Scope and Power supply as described in Step 6

If a Python terminal is not available:

- Step 1

- At each of the 6 eDrives
  - Press the “Emission” button of each eDrive (once pressed it should not be illuminated)
  - Turn the keyswitch to the off position



- **Step 2**
- At each of the 4 TDK Power Supplies
  - Press the “Out” button so it is not illuminated
  - Toggle the power switch (top left corner) to the off position



- **Step 3**
- At each of the 4 PolyScience water chillers, press the power button on the front panel on the right side.



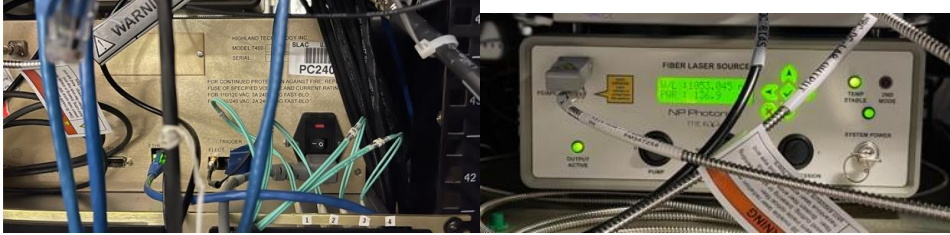
- **Step 4**
- PDU Components at Rack B999 S60

- Unplug “vacuum scroll pump” at Outlet 7
- Unplug “YFE pockels driver” at Outlet 1
- Unplug “Pockels cell YFE out” at Outlet 6

- **Step 5**

- **PDU Components at Rack B999-64B**

- Toggle back panel power switch of “Highland”
- Toggle front panel power switch of “Lecroy A”
- Toggle front panel power switch of “Lecroy B”
- Unplug MBC bias controller at PDU outlet #8
- Toggle front panel “pump” switch of NP Photonics “Rock” seed laser and turn key switch to off position



“Highland” Back Panel power switch    Front panel “Pump” toggle switch of NP Photonics laser

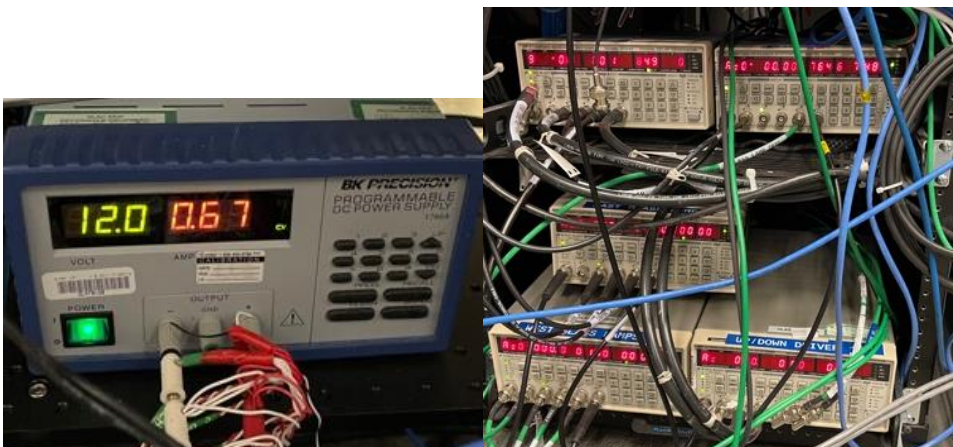


Front panel power switch of “LeCroy A and LeCroy B”

- **Step 6**

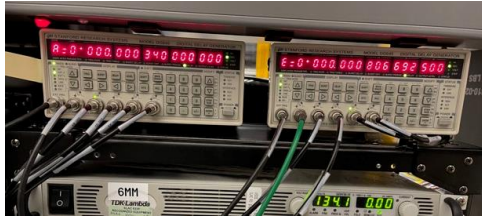
- **Miscellaneous**

- Under Optical table - “Mobile LeCroy Scope” (toggle power switch bottom left)
- Under Optical table BK Precision DC power supply (toggle green power switch)
- Power off all 5 DG654 units at the S60 rack
- Power off the 2 DG645 units at the eDrive rack
- Power off MForce Chassis and Newport controller at rack B999-PR62
- Power off Newport controller MCN-MEC-LAS3 and MCN-MEC-LAS4 (under optical table Northwest isle)

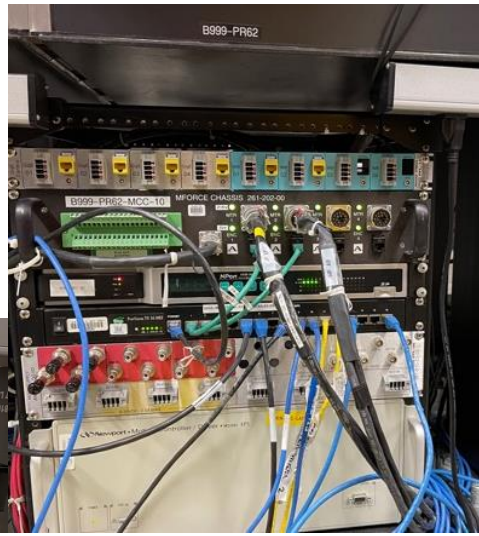


BK Precision Power Supply

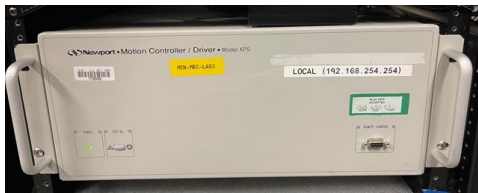
DG645 @ S60 rack



DG 645 @ eDrive rack



B999-PR62 rack



Newport Controller (Northwest Isle)

