Power specs of SAU

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Component | Voltage | Current | Qty | Power | Remarks |
| Nema 17 stepper motor | 12V | 1.5A |  | 18.0W |  |
| CCD42-10 Back illuminated high performance AIMO CCD sensor[[1]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftn1) | Typically 450mV  (unbinned) |  |  |  |  |
| NeCu laser | NeCu70-248: 2.5 mV  NeCu 30-248: 0.5 mV | NeCu70-248:100mA[[2]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftn2)  NeCu 30-248: 100mA[[3]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftn3) |  | NeCu 70-248: >250mW  NeCu 30-248: >50 mW |  |

Power specs of SPU

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Voltage | Current | Qty | Power |
| Nema 17 stepper motor | 12V | 1.5A |  | 18.0W |
| AC 220V 60W-100W Ultrasonic Cleaner Power Driver Board With 2Pcs 50W 40KHZ Transducers |  |  |  |  |

[[1]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftnref1) <https://www.e2v.com/resources/account/download-datasheet/3747>

[[2]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftnref2) <https://www.gophotonics.com/products/lasers/photon-systems/29-1440-necu-70-248>

[[3]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en-us&rs=en-us&wopisrc=https%3A%2F%2Fnusu.sharepoint.com%2Fsites%2FNUSRoverTeam2020-2021%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Fff6700bc441b4f5fa336761d3c647a1b&wdenableroaming=1&mscc=1&hid=ac15dd96-17ea-9d9a-b0b6-217ca3fccb10-1675&uiembed=1&uih=teams&uihit=files&hhdr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Atrue%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F853886890%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fnusu.sharepoint.com%252Fsites%252FNUSRoverTeam2020-2021%252FShared%2520Documents%252FElectrical%252FElectrical_AY21-22%252FPower%2520Specs%2520-%2520Science.docx%26fileId%3Dff6700bc-441b-4f5f-a336-761d3c647a1b%26fileType%3Ddocx%26ctx%3Dfiles%26scenarioId%3D1675%26locale%3Den-us%26theme%3Ddefault%26version%3D21100501100%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1640830777292%22%7D&wdorigin=TEAMS-ELECTRON.teams.files&wdhostclicktime=1640830777247&jsapi=1&jsapiver=v1&newsession=1&corrid=076a644a-2713-450a-b0ee-42cb792ab579&usid=076a644a-2713-450a-b0ee-42cb792ab579&sftc=1&sams=1&accloop=1&sdr=6&scnd=1&hbcv=1&htv=1&hodflp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_ftnref3) <https://www.gophotonics.com/products/lasers/photon-systems/29-1440-necu-30-248>