

Question

Peter M (/users/679/merlepete.html) asked • Dec 14 2020 at 11:26 AM

MultiPlus max charge efficiency point

I cannot find info on typical efficiency of the Multiplus in conversion of AC to DC. There is information the other way round. If that information is verboten I'd at least like to know where the max efficiency point is more or less in terms of % of max rated charge power

[MPPT Controllers \(/topics/25/MPPT%20Controllers.html\)](/topics/25/MPPT%20Controllers.html)[MultiPlus Quattro Inverter Charger \(/topics/26/MultiPlus%20Quattro%20Inverter%20Charger.html\)](/topics/26/MultiPlus%20Quattro%20Inverter%20Charger.html)

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[\(/questions/70543/multiplus-max-charge-efficiency-point.html?sort=newest\)](/questions/70543/multiplus-max-charge-efficiency-point.html?sort=newest)[\(/questions/70543/multiplus-max-charge-efficiency-point.html?sort=oldest\)](/questions/70543/multiplus-max-charge-efficiency-point.html?sort=oldest)[\(/questions/70543/multiplus-max-charge-efficiency-point.html?sort=votes\)](/questions/70543/multiplus-max-charge-efficiency-point.html?sort=votes)

Answers



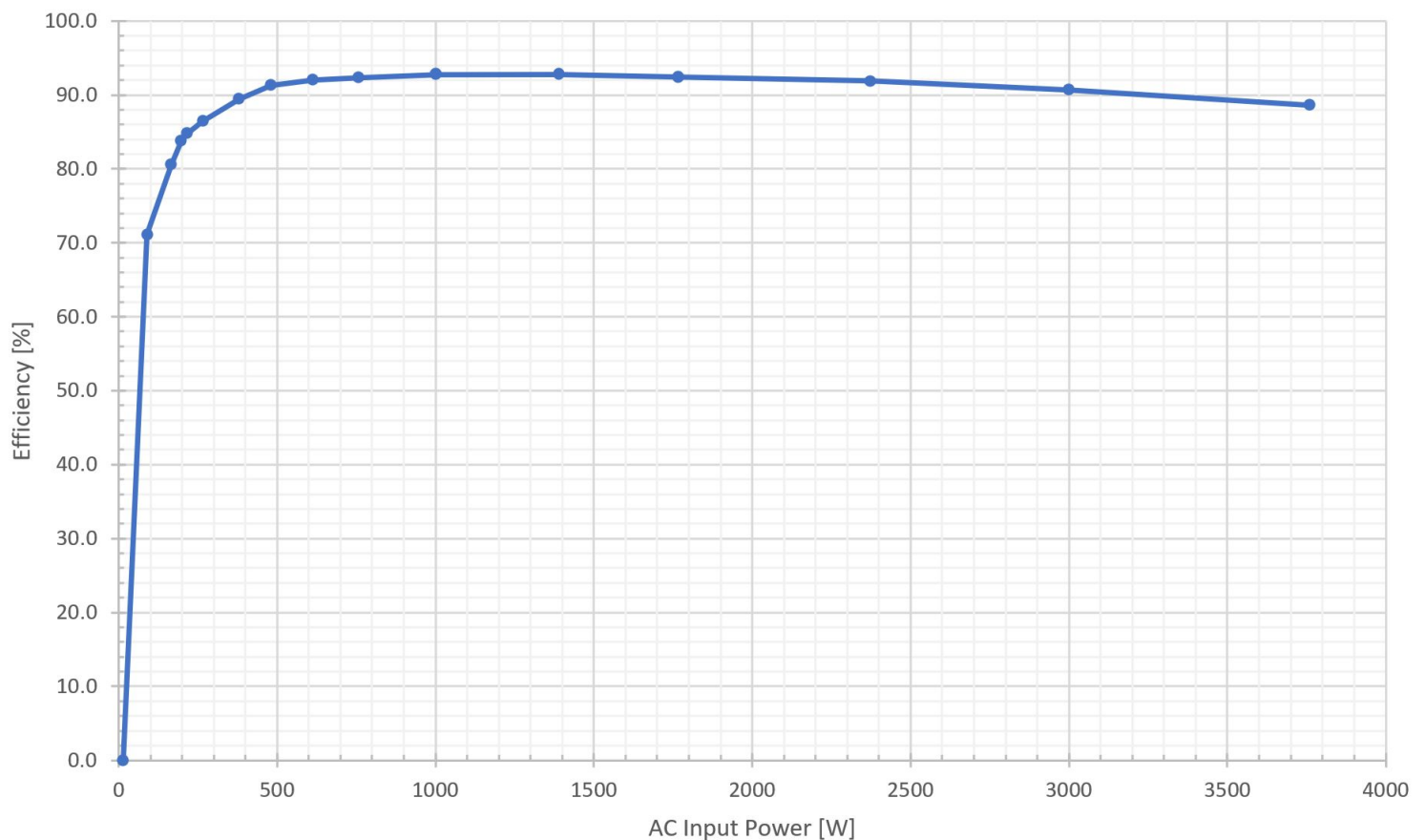
raphael (/users/15336/raphael.html) answered • Jan 30 2022 at 3:26 PM **ACCEPTED ANSWER**

(/users/15336/raphael.html)

MultiPlus-II 48/5000/70-50

Charge efficiency (AC -> DC)

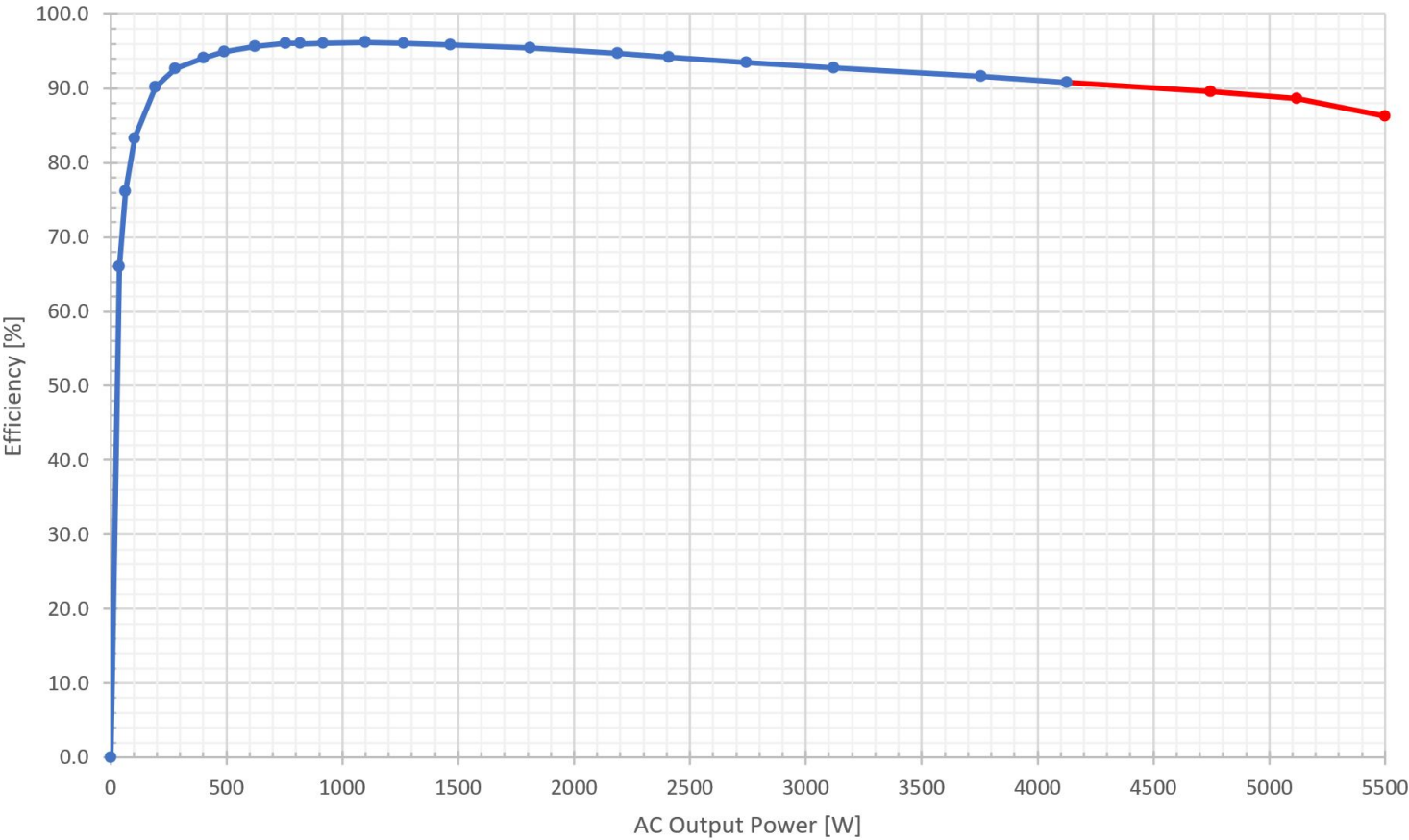
MultiPlus-II 48/5000/70-50







| AC Input Power [W] | Efficiency [%] | Dissipation [W] |
|--------------------|----------------|-----------------|
| 13.5 | 0.0 | 13.5 |
| 90 | 71.1 | 26 |
| 165 | 80.6 | 32 |
| 197 | 83.8 | 32 |
| 217 | 84.8 | 33 |
| 266 | 86.5 | 36 |
| 380 | 89.5 | 40 |
| 482 | 91.3 | 42 |
| 614 | 92.0 | 49 |
| 758 | 92.3 | 58 |
| 1003 | 92.7 | 73 |
| 1390 | 92.8 | 100 |
| 1766 | 92.5 | 133 |
| 2372 | 91.9 | 193 |
| 3000 | 90.7 | 280 |
| 3760 | 88.6 | 427 |

Discharge efficiency (DC -> AC)

MultiPlus-II 48/5000/70-50



| AC Output Power [W] | Efficiency [%] | Dissipation [W] |
|---------------------|----------------|-----------------|
| 0 | 0.0 | 20 |
| 39 | 66.1 | 20 |
| 64 | 76.2 | 20 |
| 105 | 83.3 | 21 |
| 193 | 90.2 | 21 |
| 279 | 92.7 | 22 |
| 402 | 94.1 | 25 |
| 489 | 95.0 | 26 |
| 622 | 95.7 | 28 |
| 754 | 96.1 | 31 |
| 817 | 96.1 | 33 |
| 917 | 96.1 | 37 |
| 1100 | 96.2 | 44 |
| 1266 | 96.1 | 52 |
| 1466 | 95.9 | 63 |
| 1810 | 95.4 | 87 |
| 2188 | 94.8 | 121 |
| 2410 | 94.3 | 147 |
| 2745 | 93.5 | 192 |
| 3120 | 92.7 | 244 |
| 3755 | 91.6 | 343 |
| 4126 | 90.8 | 416 |
| 4750 | 89.6 | 550 |
| 5120 | 88.6 | 656 |
| 5500 | 86.3 | 875 |

-  [multiplus-ii-48v-5kva-discharge-efficiency.jpg \(/storage/attachments/28654-multiplus-ii-48v-5kva-discharge-efficiency.jpg\) \(194.6 KiB\)](#)
-  [multiplus-ii-48v-5kva-charge-efficiency.jpg \(/storage/attachments/28618-multiplus-ii-48v-5kva-charge-efficiency.jpg\) \(184.5 KiB\)](#)
-  [multiplus-ii-48v-5kva-charge-efficiency-table.jpg \(/storage/attachments/28647-multiplus-ii-48v-5kva-charge-efficiency-table.jpg\) \(125.9 KiB\)](#)
-  [multiplus-ii-48v-5kva-discharge-efficiency-table.jpg \(/storage/attachments/28619-multiplus-ii-48v-5kva-discharge-efficiency-table.jpg\) \(182.1 KiB\)](#)

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[carsten2 \(/users/18532/carsten2.html\)](#) answered · Mar 17 2023 at 1:18 PM

[\(/users/18532/carsten2.html\)](#)

Could you please add the values for the Multiplus II 48V 3000?

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RELATED RESOURCES

[MPPT Product Page \(https://www.victronenergy.com/solar-charge-controllers\)](https://www.victronenergy.com/solar-charge-controllers)

[MPPT Error codes \(https://www.victronenergy.com/live/mppt-error-codes\)](https://www.victronenergy.com/live/mppt-error-codes)

[MPPT 150/60 up to 250/70 Manual \(https://www.victronenergy.com/media/pg/Manual_SmartSolar_MPPT_150-60_up_to_250-70/en/index-en.html\)](https://www.victronenergy.com/media/pg/Manual_SmartSolar_MPPT_150-60_up_to_250-70/en/index-en.html)

[MultiPlus Product page \(https://www.victronenergy.com/inverters-chargers/multiplus-12v-24v-48v-800va-3kva/\)](https://www.victronenergy.com/inverters-chargers/multiplus-12v-24v-48v-800va-3kva/) [Quattro Product page \(https://www.victronenergy.com/inverters-chargers/quattro\)](https://www.victronenergy.com/inverters-chargers/quattro)

MultiPlus 230V Datasheet (<https://www.victronenergy.com/upload/documents/Datasheet-MultiPlus-inverter-charger--800VA-5kVA-EN-.pdf>) / Quattro 230V Datasheet (<https://www.victronenergy.com/upload/documents/Datasheet-Quattro-3kVA-15kVA-EN.pdf>)

QUESTION DETAILS

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Are 50vdc solar panels wasted on a 12vdc system? (/questions/40231/are-50vdc-solar-panels-wasted-on-a-12vdc-system.html)

SmartSolar MPPT 150/85 VE.Can - No current flow in Bulk with PV at VOC (/questions/85026/smartsolar-mppt-15085-vecan-no-current-flow-in-bul.html)

Large difference between solar blanket voltage output and Victron dashboard (/questions/75468/large-difference-between-solar-blanket-voltage-out.html)

Why MPPT sizing system is recommending 150/35 and not 100/50 ? (/questions/97384/why-mppt-sizing-system-is-recommending-15035-and-n.html)

Victron Quattro 5000 VA with Contactors (</questions/3614/victron-quattro-5000-va-with-contactors.html>)

Modifications Space (<https://community.victronenergy.com/spaces/31/index.html>)

Node Red Space (<https://community.victronenergy.com/smart-spaces/71/node-red.html>)