



LOAD CALCULATIONS

FOR THE AJ - 600 STUDER SOLAR SYSTEM

A SOLAR SYSTEM THAT SUITS YOUR DAILY NEEDS



COMPATIBLE APPLIANCES



240V LED LIGHT



CHARGING PHONES + TABLETS



LAPTOP



INKJET PRINTER



TV + PLAYBOX



RICE COOKER



100L BAR FRIDGE



FREEZER



SMALL POWER TOOLS



SOUND SYSTEM

LOAD CALCULATIONS FOR THE AJ-600 STUDER SOLAR SYSTEM:


IN THE TABLE BELOW, YOU CAN FIND THE ESTIMATIONS FOR DIFFERENT APPLIANCES. THIS WILL HELP YOU TO MAKE A ROUGH CALCULATION FOR YOUR SOLAR NEEDS. PLEASE KEEP IN MIND THAT THIS ARE ESTIMATIONS AND THAT THE FIGURES IN YOUR INDIVIDUAL CASE CAN BE DIFFERENT (DEPENDING ON THE APPLIANCE AND THE ENVIRONMENT).

| Appliances | Est. Consumption | Can run on AJ-600 |
|----------------------|------------------|-------------------|
| Mobile phone, tablet | 5 W/h | ✓ |
| LED light short | 10 W/h | ✓ |
| LED light long | 18 W/h | ✓ |
| LED TV small | 25 W/h | ✓ |
| Inkjet printer | 20 W/h | ✓ |
| Sat box | 35 W/h | ✓ |
| Church sound system | 250 W/h | ✓ |
| Bar fridge (100l) | 300 W/day | ✓ |
| Small freezer (100l) | 750 W/day | ✗ |
| Rice cooker 1.8l | 700 W/h | ✗ |
| Micro wave | 1000 W/h | ✗ |
| Davey water pump | 1200 W/h | ✗ |
| Angle grinder | 1200 W/h | ✗ |

AJ-600 SOLAR KIT:


THE AJ-600 SYSTEM PRODUCES ABOUT 1200 WH ON A SUNNY DAY. YOU CAN NOW CALCULATE HOW MANY LOADS CAN BE POWERED UP DEPENDING ON YOUR NEEDS:

QUANTITY X CONSUMPTION X HOURS = CONSUMPTION IN WH (WATT HOURS)

| | Appliances | Consumption | Hours | Watt Hours (WH) |  |
|--------------------------|----------------------------|-------------|-------|-----------------|---|
| 2 | LED light (short) | 10 W/h | 5 | 100 | |
| 2 | LED security light (short) | 10 W/h | 12 | 240 | |
| 1 | TV | 25 W/h | 3 | 75 | |
| 1 | Sat box | 35 W/h | 3 | 105 | |
| 1 | Laptop during the day | 50 W/h | 8 | 400 | |
| Total Consumption | | | | 920Wh | |

AS THE LOADS ABOVE ADD UP TO LESS THAN 1200WH PER DAY, THE SYSTEM WILL BE SUFFICIENT TO PROVIDE THE REQUIRED POWER.

LET'S FIND OUT, IF A AJ- 600 CAN POWER UP THE FOLLOWING APPLIANCES

| | Appliances | Consumption | Hours | Watt Hours (WH) |  |
|--------------------------|----------------|-------------|-------|-----------------|---|
| 1 | Freezer (100l) | 750 W/day | | 750 | |
| 1 | Fridge (100l) | 300 W/day | | 300 | |
| 1 | Rice cooker | 700 W/h | 2 | 1400 | |
| Total Consumption | | | | 2450 Wh | |

THE CALCULATIONS ABOVE EXCEED 1200 WH, SO THE LOAD IS TOO HIGH FOR A AJ-600 SYSTEM. TO USE THE APPLIANCES THAT ARE CALCULATED ABOVE, YOU WILL NEED THE BIGGER SOLAR SYSTEM (STUDER AJ-1300).

MAINTENANCE:

- MAKE SURE YOU CLEAN THE PANELS FROM TIME TO TIME IF DIRTY
- KEEP THE INVERTER FREE OF DUST AN BUGS
- IF THE SYSTEM STOPS FUNCTIONING, IT'S MOST LIKELY THAT YOU HAVE USED TOO MUCH LOADS TO AVOID THIS, REDUCE THE LOAD AND LET IT CHARGE FOR SOMETIME

CONTACT DETAILS

IF YOU ARE STUCK DURING THE PROCESS OF SET UP OR NEED CONFIRMATION REGARDING THE AJ SYSTEM SET UP THEN CONTACT OUR ELECTRONIC TECHNICIANS WHO WILL BE ABLE TO ASSIST YOU WITH ANY QUIRES OR CONCERNS.

Contact

Landline: (+675) 532 2670

BMobile: (+675) 7528 1345

Digicel: (+675) 7250 3958

✉maftech.info@mafint.org

✉maftech.solar@mafint.org

Facebook | Instagram | Whatsapp | YouTube

Address

MAF Technologies

P.O.Box 1307, Morchhauser street

Goroka, 441, EHP,

Papua New Guinea