

PC80

Fee-In Controller for Power Stations

Product Description

The "mobile sockets" (power stations) that have been available for a few years now offer the possibility of storing the energy generated by solar modules on the move as well as at home, and to call it up at will. Until now, however, it was not possible to feed this energy into the 230V household grid, as power stations normally only provide an isolated grid at their 230V sockets, which must not be connected to the household grid.

The PC80 now closes this gap and is used to connect any power station to the 230V AC mains via a commercially available module inverter with a rated power of at least 100VA (300-350VA are common). An existing inverter from a balcony power station system can also be used for this purpose, otherwise it can be purchased separately. The PC80 then controls the inverter so that the power is fed into the house grid with a constant output of 70-80 watts. This power covers most typical consumers in the household, so that there is almost always complete self-consumption.

In a typical application, during the day when the sun is shining, the power station is charged via the solar modules connected there and in the evening (e.g. from 20:00) the discharge via the PC80 and the inverter into the grid is started. This should then be stopped again after 8-10 hours, for example, which can also be done automatically via a timer. With 10 hours of discharging with 80W, approx. 800Wh have been taken out of the power station, so in the above example it should have at least 1600Wh capacity to achieve the longest possible cycle life. Otherwise, the discharge time can of course be shortened and a correspondingly smaller power station used.

The PC80 is supplied in an attractive black aluminium case, and has a 30 cm long cable with a cigarette lighter plug on the input side for connection to the power station. On the output side, it is equipped with a cable of the same length with MC4 plugs that fit into commercially available module inverters. The unit requires no maintenance.

As a supplement to the PC80, Sonnenrepublik offers a switch box equipped with 3 MC4 cables, with which a simple switchover of the inverter from the solar module to the PC80 can be made.

Technical Data

Input voltage range:	11,5 – 16,0V
Input current:	max. 6A
Output voltage:	16 - 28V, stabilised at 28V
Output power:	max. 80W permanent
Efficiency:	max. 97%
Dimensions / Weight:	approx. 70 x 55 x 32mm / approx. 120g
Ambient temperature:	-30 ... +50°C
Humidity:	max. 90%
Protective mechanisms:	overvoltage, overcurrent, reverse polarity
Conformity/protection class:	according to EC directives 2004/108/EC and 2006/95/EC, ROHS

