

# PV Modules

German off-grid power modules for off-grid solutions, mono- and poly-crystalline, in the range of 5 Wp up to 140 Wp

GOP high quality PV modules are a perfect synthesis out of German engineering, high qualified and cost effective production, high-end components and quality assurance.

- High performance off-grid PV modules
- Special manufactured for off-grid applications
- Outstanding price performance ratio
- Especially for off-grid applications in industrial field for example traffic: street lightning, traffic guidance systems, parking ticket machines etc.
- For off-grid solutions such as holiday houses, country cottages, garden houses, hunting lodges, mobile homes, caravans, sailing ships, solar pumps etc.
- with junction box for cables +/-
- Protection class: 5-20 Wp: IP 54, 50-140 Wp: IP 65
- 2 years product guarantee
- 5 years guarantee for 90% rated power
- 10 years guarantee for 80% rated power
- Plus tolerance (5/10/20/50/140 Wp): up to +4,85 Wp



Type	Dimensions	Weight	Specifications					
			Max. power ( $P_{max}$ )	Max. power voltage ( $U_{mpp}$ )	Max. power current ( $I_{mpp}$ )	Open circuit voltage ( $U_{oc}$ )	Short circuit current ( $I_{sc}$ )	
PV modules 36 cells	mm	kg	Wp	V	A	V	A	
GOP-J-M5Wp* <sup>1</sup>	mono	293 x 212 x 35	1,2	5	17,82	0,29	21,5	0,32
GOP-J-M10Wp* <sup>1</sup>	mono	353 x 293 x 35	1,5	10	17,82	0,57	21,5	0,63
GOP-J-M20Wp* <sup>1</sup>	mono	652 x 287 x 35	3,0	20	17,82	1,14	21,6	1,27
GOP-J-P50Wp* <sup>4</sup>	poly	665 x 535 x 35	5,5	50	17,40	2,87	22,0	3,16
GOP-S-M80Wp <sup>2</sup>	mono	670 x 770 x 30	6,0	80	17,8	4,49	22,3	4,85
GOP-S-M85Wp <sup>2</sup>	mono	670 x 770 x 30	6,0	85	17,8	4,78	22,3	5,16
GOP-E-M100Wp* <sup>3</sup>	mono	1190 x 540 x 35	7,6	100	18,0	5,55	22,19	5,97
GOP-J-P140Wp* <sup>4</sup>	poly	1482 x 676 x 35	11,5	140	18,10	7,73	22,2	8,31

Maximum system voltage: <sup>2/3</sup> 1000 VDC, <sup>1/4</sup> 800 VDC

Temperature Coefficients: monocrystalline modules: <sup>1</sup>  $P_{max}$  -0,49%/°C,  $U_{oc}$  -0,35%/°C,  $I_{sc}$  0,05%/°C; polycrystalline modules: <sup>4</sup>  $P_{max}$  -0,45%/°C,  $U_{oc}$  -0,32%/°C,  $I_{sc}$  0,05%/°C;

<sup>2</sup>  $P_{max}$  -0,48%/°C,  $U_{oc}$  -0,34%/°C,  $I_{sc}$  0,017%/°C; <sup>3</sup>  $P_{max}$  -0,47%/°C,  $U_{oc}$  -0,346%/°C,  $I_{sc}$  0,036%/°C;

Specifications as per STC: irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM 1,5

\*available in stock Germany