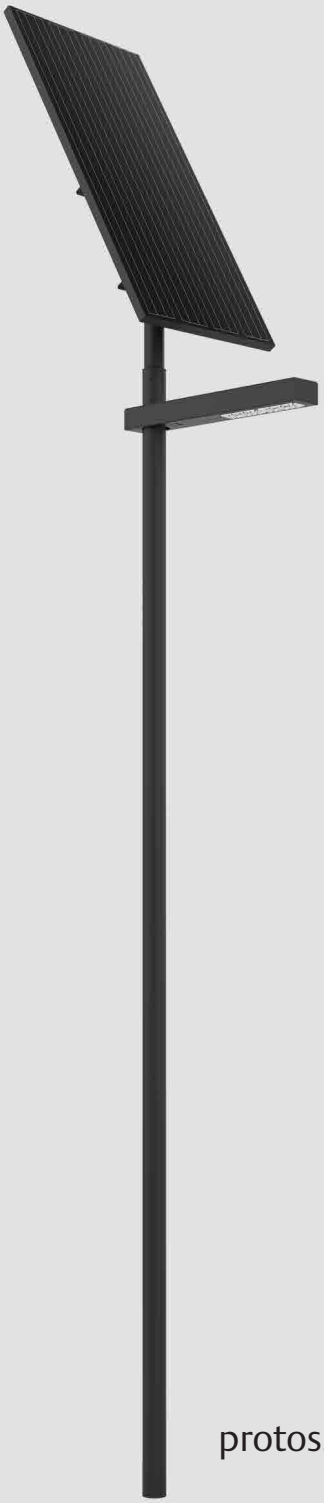
brilliance in solar lighting

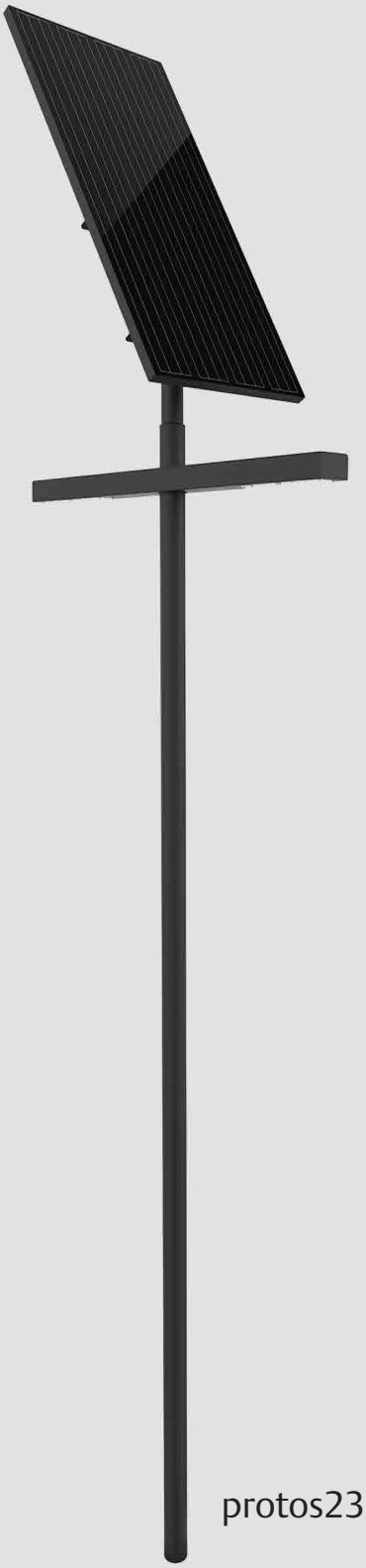
photinus

Datasheet

protos230 / protos230 Duo



protos230



protos230 duo

photinus GmbH & Co. KG | Reute 1153a | 6861 Alberschwende | Austria
t +43 5579 20 700 | www.photinus.at

SELF-SUFFICIENT SOLAR LED STREET LAMP

USAGE

It is „functional with appealing design“ and it is called protos. It is a self-sustaining, exterior solar LED lamp with various technical options. The energy supply is based on an efficient mono-crystalline photovoltaic module, the inclination of which can be adjusted.
Intelligent controls with independent day- and night-time recognition enables different time programs. Given the short assembling and disassembling times, protos is excellently suitable as street lighting or for temporary usage wherever cordless lighting is required, such as construction sites, parking lots, access roads, outdoor events or company premises.
The high-efficiency LEDs and advanced optical components ensure impressive light distribution. Protos meets the country-specific light-technical requirements of DIN 13201 for residential streets with low traffic, cycle paths and footpaths, parking lots and company premises.

FUNCTION

The integrated battery is charged during daytime by the efficient photovoltaic solar module. At nightfall, the LED light module is automatically activated.

The light output of a solar lamp is defined by the incident solar irradiation at the respective location, which is why the quality of the individual components and their optimum interaction play a decisive role.

The LiFePo4 battery used in protos is shored in the ground together with the post so that an optimum, constant temperature is achieved. The long service life of the battery and efficient theft protection are the results.

GUARANTEE

5 years

The warranty of the solar illumination is provided, as far as the illumination is installed like described in the installation instructions. The warranty is void, if the product settings haven´t been changed by photinus authorized employees/partners and/or using non-photinus approved tools.

SOLAR LIGHT	protos230 / protos230 Duo
SOLAR MODULE	
Solar modul	Monocristalline silicon cells
Module performance	230 Wp
Module dimensions	1320 x 992 x 35 mm
Open Circuit Voltatge (VOC)	29.0V
Short Circuit Current (ISC)	9.08A
Maximum Power Voltage (Vmp)	23.9V
Maximum Power Current (Imp)	8.37A
BATTERY (IN THE POLE)	
Battery	LiFeP04 / 474 Wh (12,8 V 37Ah) or LiFeP04 / 1152Wh (12,8 V 90Ah) (depending on location/latitude)
Operating temperature	-20°C to +60°C
Battery life	up to 10 years
Protection class	IPX8
LIGHTS	
Max. luminous flux	Depending on the location where the light is staying. Location: Luminous flux / autonomy time normal mode / smart mode 52. degrees lat. (Amsterdam): 16 W, 2760 lm / V5 / 8 days / 12 days 47. degrees lat. (Munich): 18 W, 2800 lm / V5 / 6 days / 9 days 40. degrees lat. (Madrid): 44 W, 7580 lm / V5 / 3 days / 5 days
Efficiency	200lm/W at 600mAh
LED module / max. watts	100 W
Colour temperature	4000K (By request changeable: Amber Light, 2000K, 3000K, 5000K)
Life of LED	>75 000 h (L80)
Protection-class	IP 67
MATERIALS	
Pole	galvanised and powder-coated steel „Sparkling iron effect dark“
Metal parts	powder-coated aluminium „Sparkling iron effect dark“

Technical changes reserved

Tecnical data

DIMENSIONS	
Total height from ground level	depending on the position of the solar module approximately 6396 mm at 62°
Height of light from ground level	5005 mm
Total lenght of the pole	6396 mm
Weight pole	70 kg
Lenght of the pole in the ground	1000 mm
Material pole	galvanized and powder-coated steel „Sparkling iron effect dark“
Solar module dimensions	1320 mm x 992 mm x 35 mm
Weight solar module	15.7 kg
Light housing dimensions	834 mm x 125 mm x 80 mm
Weight light housing	3,7 kg
Wind load	Wind load zone 4, with 30m/s (110 km / h) (Lloyds CLAME 2016)

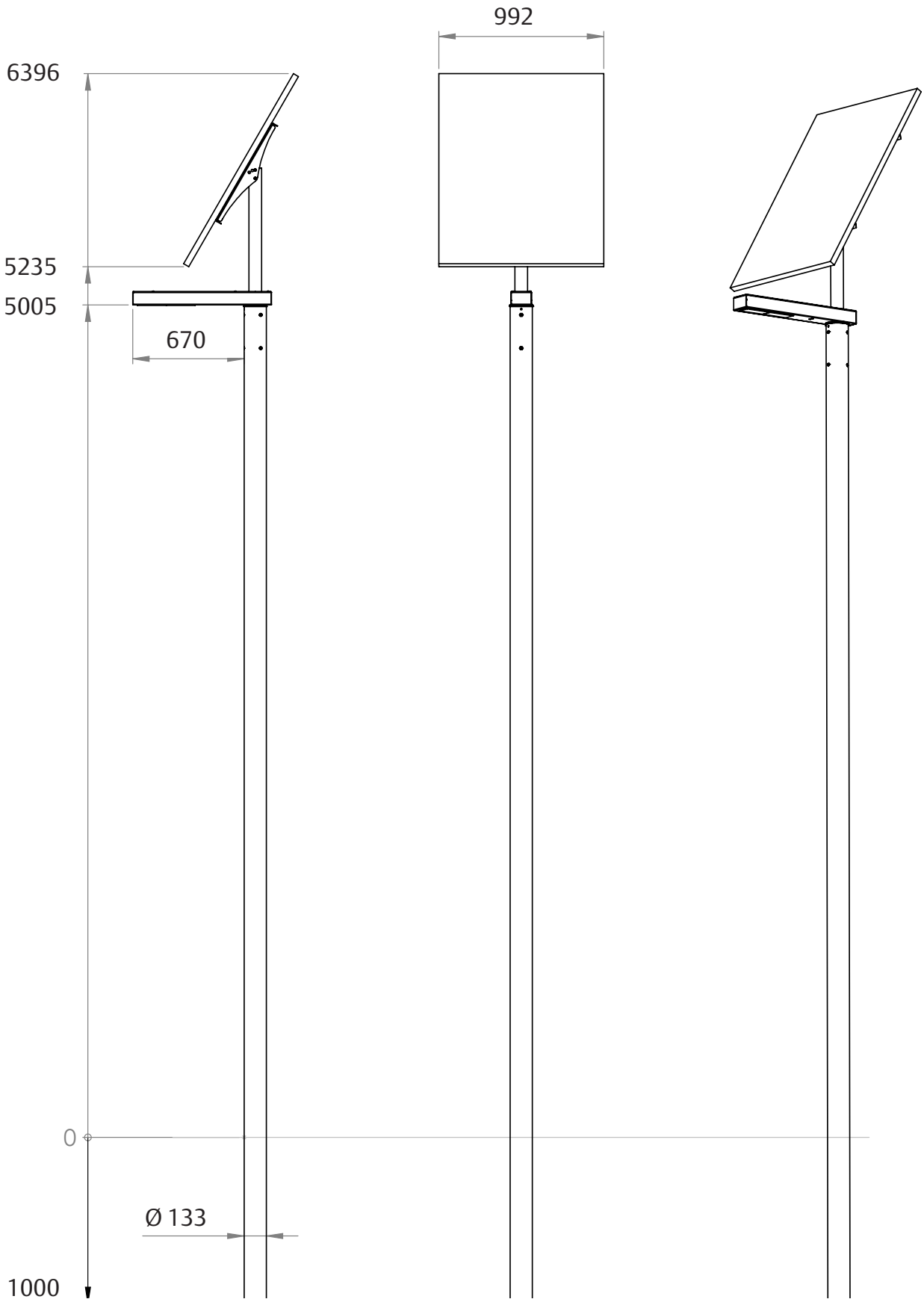
Salt spray test (ISO 9227:2012)

Corrosion test in artificial atmosphere - salt spray test (ISO 9227: 2012)

All solar lights have successfully passed the salt spray test.

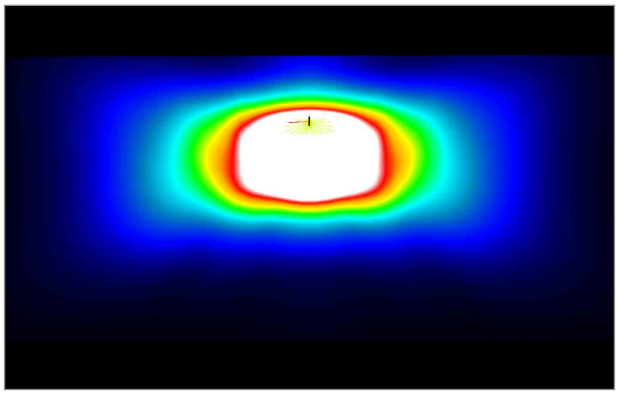
Details

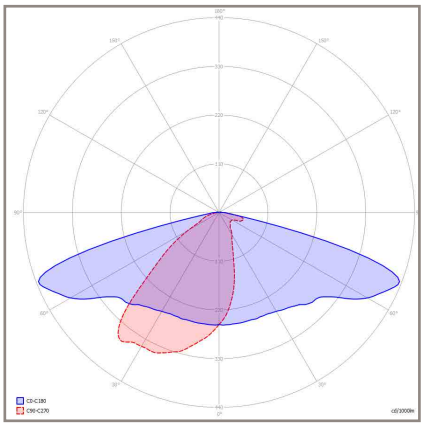
Dimensions



photinus OPTIC

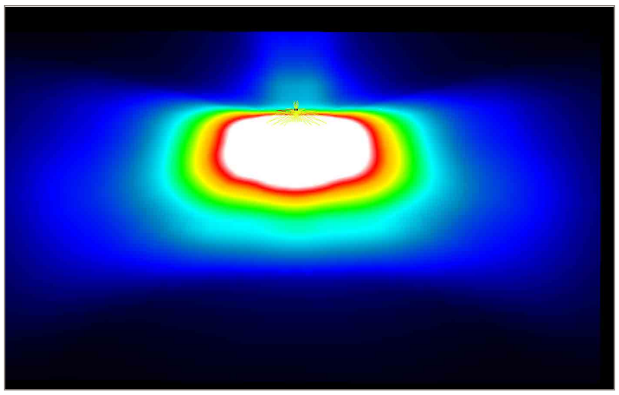
Standard optic with optimum compromise between illumination width and illumination depth

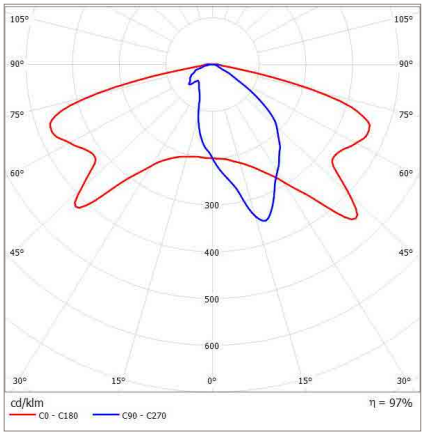




SCL OPTIC

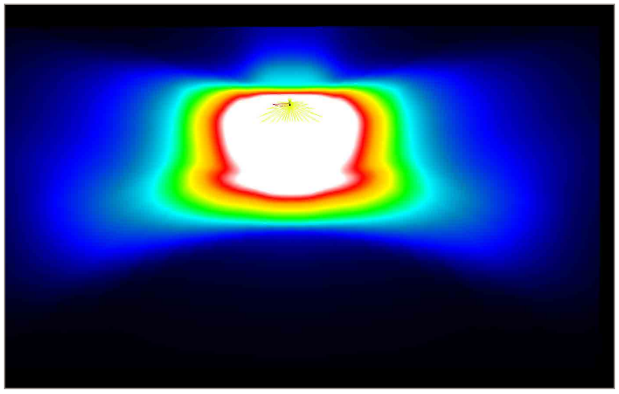
optimal for streets with a width from 2m to 4m (cicle paths, walkways and small streets)

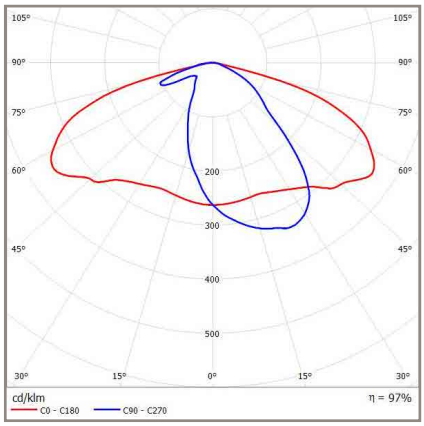




DWC OPTIC

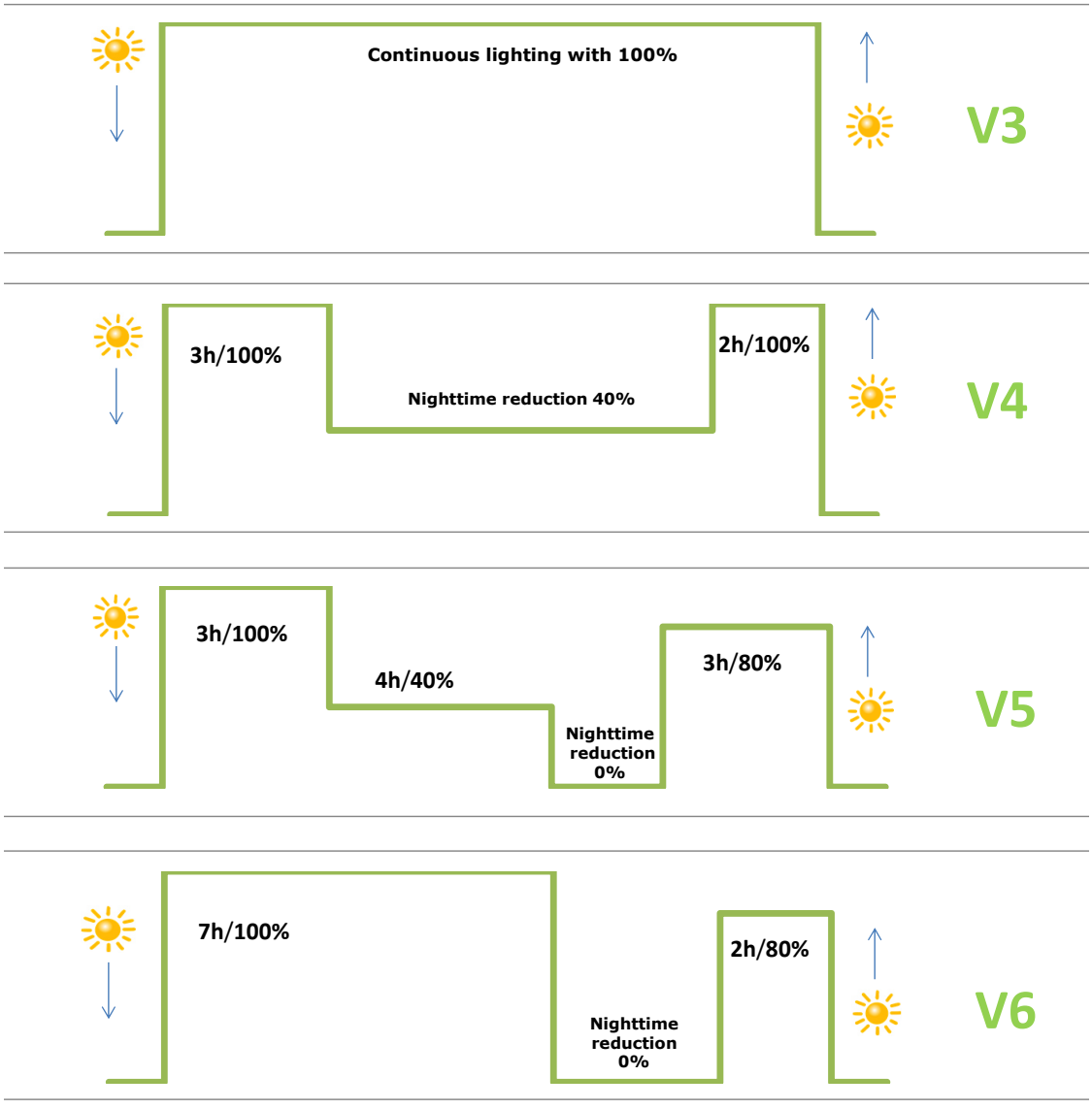
optimal for streets with a width from 4m to 7m (Residential roads, secondary roads and main roads, depending on location)





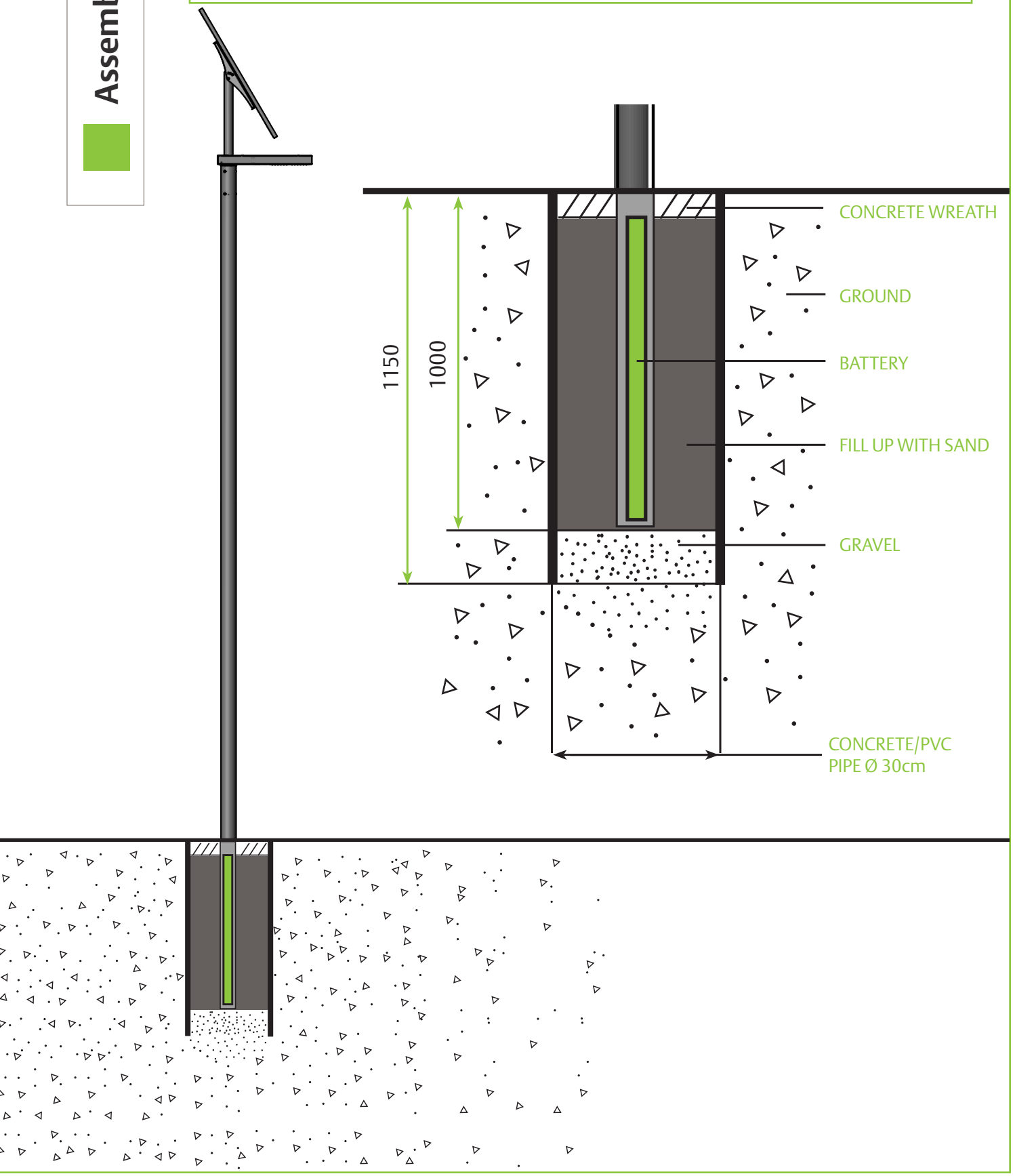
ENERGY AND TIMEMANAGEMENT

Standard factory settings V5



Assembly

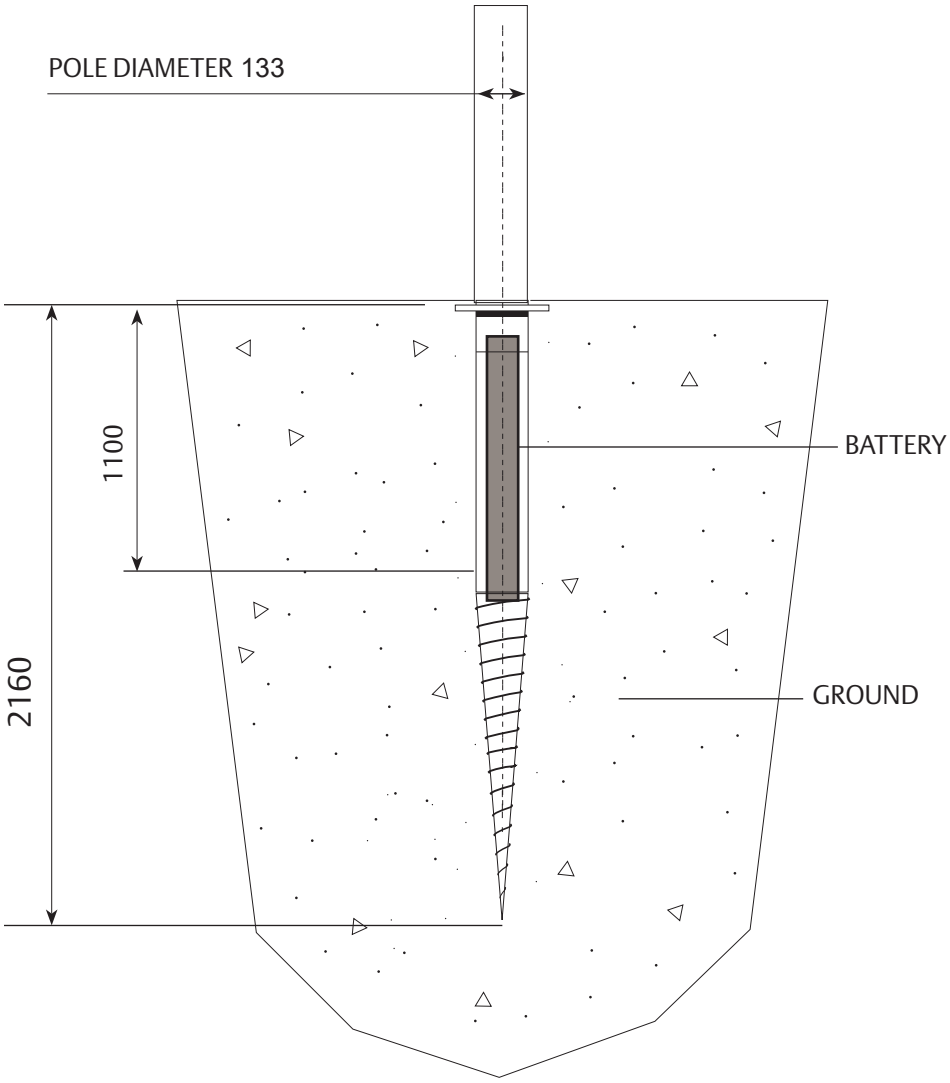
OPTION 1 - PIPE FOUNDATION



OPTION 2 - GROUND SCREW FOUNDATION

KRINNER Ground screw

Art. 25513: KSF E194x2100-RG140-SMU151
Eccentric disk set 140 mm



References

protos
parc in Poznan / PL

protos
Altfrauenhofen / DE

protos
school ground / DE

References

protos
stairs Wilhelminaberg / NL

protos
nature reserve / DE

protos
waterfall Elgafossen / NOR