Calculation of the solar PV energy ouput of a photovoltaic system

Yelow cell = enter your own data
Green cell = result (do not change the value)
White cell = calculated value (do not change the value)

Global formula : **E = A * r * H * PR**

E = Energy (kWh)	128	kWh/an
A = Total solar panel Area (m²)	1	m²
r = solar panel yield (%)	34%	
H = Annual average irradiation on tilted panels (shadings not included)*	513,5112	kWh/m².an
PR = Performance ratio, coefficient for losses (range between 0.9 and 0.5, default value = 0.75)	0,73	
Mass of 1m² of photovoltaic panel	2,83kg	
Total power of the system	0,3	kWp

Losses details (depend of site, technology, and sizing of the system)

- Inverter losses (6% to 15 %)	11%
- Température losses (5% to 15%)	5%
- DC cables losses (1 to 3 %)	2%
- AC cables losses (1 to 3 %)	2%
- Shadings 0 % to 40% (depends of site)	5%
- Losses weak irradiation 3% yo 7%	3%
- Losses due to dust, snow... (2%)	2%
- Other Losses	0%