

Abbreviations in the text

A	area [m^2]
A_r	receiver surface [m^2]
A_s	sender surface [m^2]
A_c	cross-section surface [m^2]
C	charge concentration [$\text{kg}_{\text{H}_2\text{O}}/\text{kg}_{\text{sor}}$]
E_{gap}	band gap [eV]
G	irradiance [W/m^2]
G_{eh}	extraterrestrial irradiance on horizontal plane [W/m^2]
G_{en}	extraterrestrial irradiance on plane oriented normally to beam [W/m^2]
G_{sc}	solar constant [W/m^2]
G_{h}	irradiance on horizontal plane (global irradiance) [W/m^2]
G_{b}	direct beam irradiance [W/m^2]
G_{dh}	diffuse irradiance on horizontal plane [W/m^2]
G_{t}	irradiance on tilted plane [W/m^2]
I	current [A]
I_0	saturation current [A]
I_{SC}	short circuit current [A]
K	extinction coefficient [m^{-1}]
L	characteristic length [m]
L_e	irradiance density [$\text{W}/\text{m}^2\text{sr}$]
L_v	luminance [$\text{lm}/\text{m}^2\text{sr}$]
Nu	Nußelt number [-]
Pr	Prandtl number [-]
P_{AC}	AC power [W]
P_{DC}	DC power [W]
Q_u	useful energy [kWh]
R	resistance [Ω]
$R_{\text{a-g}}$	heat resistance between absorber and glas cover [$\text{m}^2\text{K}/\text{W}$]
$R_{\text{g-o}}$	heat resistance between glas cover and environment [$\text{m}^2\text{K}/\text{W}$]
Re	Reynolds number [-]
R_p	parallel resistance [Ω]
R_s	series resistance [Ω]
S_d	shading factor for diffuse irradiance [-]
T	temperature [K]
T_a	absorber temperature [K]
T_{ads}	adsorber temperature [K]
T_b	back side temperature [K]
T_{des}	desorber temperature [K]
T_e	evaporator temperature [K]
T_f	fluid temperature [K]
$T_{\text{f,in}}$	fluid inlet temperature [K]
$T_{\text{f,out}}$	fluid exit temperature [K]
T_g	glas temperature [K]
T_G	generator temperature [K]
T_{sky}	sky temperature [K]
T_o	outside/exterior temperature [K]

T_i	room temperature [K]
T_c	condensor temperature [K]
T_{dp}	dew point temperature [K]
U	heat transfer coefficient (U-value) [W/m^2K]
U_{eff}	effective U-value [W/m^2K]
U_f	heat transfer coefficient front [W/m^2K]
U_b	heat transfer coefficient back [W/m^2K]
U_l	heat transfer coefficient per metre length [W/mK]
U_s	heat transfer coefficient side wall [W/m^2K]
U_t	total heat transfer coefficient [W/m^2K]
V	voltage [V]
$V(\lambda)$	spectral sensitivity of the eye [-]
V_c	volumetric content collector [litre]
V_{cc}	volume collector circuit [litre]
V_{oc}	open-circuit voltage [V]
W	width [m]
c_a	heat capacity of air [J/kgK]
c_v	heat capacity of water vapour [J/kgK]
d_h	hydraulic diameter [m]
g	gravity constant [m/s^2]
q	elementary charge [C]
h	heat transfer coefficient [W/m^2K]
h_c	convective heat transfer coefficient [W/m^2K]
$h_{c,w}$	convective heat transfer coefficient due to wind forces [W/m^2K]
h_r	radiative heat transfer coefficient [W/m^2K]
h_e	evaporation enthalpy [kJ/kg]
h_o	enthalpy outside air [kJ/kg]
h_l	enthalpy liquid [kJ/kg]
h_v	enthalpy vapour [kJ/kg]
k_{max}	photometric equivalent [lm/W]
m	avalanche coefficient [-]
p_a	pressure dry air [Pa]
p_w	pressure water vapour [Pa]
v	velocity[m]
Φ	luminous flux [lm], heat recovery efficiency [-]
α	optical absorptions coefficient [-]
α_t	temperature coefficient of current [K^{-1}]
α_v	temperature coefficient of voltage [K^{-1}]
β	orientation angle from horizontal [$^\circ$]
β'	heat expansion coefficient [K^{-1}]
δ	sheet thickness [m]
ε	emission coefficient [-]
ν	kinematic viscosity [m^2/s]
ξ_r	concentration of rich solution [-]
ξ_p	concentration of poor solution [-]
η	efficiency [-]
ρ	reflection coefficient
τ	transmission coefficient [-]