the plate SAH, whereas this difference is not significant in comparison with the gain in the thermal performances.

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NOMENCLATURE

I	Solar radiation, $W.m^{-2}$
$\dot{m}$	Mass flow rate of the air, $kg.s^{-1}$
C_P	Specific heat of the air, $J.kg^{-1}.K^{-1}$
De	Dean number
D_H	Hydraulic diameter, m
F_0	Heat removal factor based on air outlet temperature
P_m	Electrical power consumption, W
Q_{sa}	Amount of heat absorbed, $W.m^{-2}$
Q_u	Amount of useful heat, $W.m^{-2}$
Q_p	Amount of heat lost, $W.m^{-2}$
Q_{sk}	Amount of stored heat, $W.m^{-2}$
U_L	Overall loss coefficient, $W.m^{-2}.K^{-1}$
Re	Reynolds number
R_C	Curvature radius, (m)
S_{abs}	Surface of the absorber, m^2
T_a	Ambient temperature, °C
T_{in}	Air inlet temperature, °C
T_{out}	Air outlet temperature, °C
V_v	Wind speed, $m.s^{-1}$

Greek symbols

η_{th}	Thermal efficiency (%)
τ	Transmittance
α	Absorptance