According to IEA SHC Task 36, both types seem useful to respondents. Nevertheless, even for IEA SHC Task 36, the majority of data request are for time series and not for maps (Hoyer-Klick *et al.*, 2010). Due to these facts, the QCPs selected for ENDORSE project are only for individual time series and no for spatial distributed data.

	Monthly	Daily	Hourly	Sub-hourly (1-minute average except for WS which is 2-minute)
GHI (Wm^{-2})	QCP based on extrema $0.03\ GHItoa < GHI < 1.2\ I_0$ / QCP based on rare observations $0.03\ GHItoa < GHI < GHItoa$	QCP based on extrema $0.03\ GHItoa < GHI < 1.2\ I_0$ / QCP based on rare observations $0.03\ GHItoa < GHI < GHItoa$	QCP based on extrema $0.03\ GHItoa < GHI < \min(1.2\ I_0,\ 1.5\ I_0\ \cos(SZA)^{1.2} + 100)$ / QCP based on rare observations $0.03\ GHItoa < GHI < 1.2\ I_0\ \cos(SZA)^{1.2} + 50$	QCP based on extrema $0.03\ GHItoa < GHI < \min(1.2\ I_0, 1.5\ I_0\ \cos(SZA)^{1.2} + 100)$ / QCP based on rare observations $0.03\ GHItoa < GHI < 1.2\ I_0\ \cos(SZA)^{1.2} + 50$ / Step QCP Maximum step for two following measures: 1000 W m⁻²
BNI (Wm^{-2})	QCP based on extrema $0 < BNI < I_0$	QCP based on extrema $0 < BNI < I_0$	QCP based on extrema $0 < BNI < I_0$ / QCP based on rare observations $0 < BNI < 0.95\ I_0\ \cos(SZA)^{0.2} + 10$	QCP based on extrema $0 < BNI < I_0$ / QCP based on rare observations $0 < BNI < 0.95\ I_0\cos(SZA)^{0.2} + 10$
DHI (Wm^{-2})	QCP based on extrema $0.03\ GHItoa < DHI < 0.8\ I_0$	QCP based on extrema $0.03\ GHItoa < DHI < 0.8\ I_0$	QCP based on extrema $0.03\ GHItoa < DHI < \min(0.8\ I_0, 0.95\ I_0\ \cos(SZA)^{1.2} + 50)$ / QCP based on rare observations $0.03\ GHItoa < DHI < 0.75\ I_0\ \cos(SZA)^{1.2} + 30$	QCP based on extrema $0.03\ GHItoa < DHI < \min(0.8\ I_0, 0.95\ I_0\ \cos(SZA)^{1.2} + 50)$ / QCP based on rare observations $0.03\ GHItoa < DHI < 0.75\ I_0\ \cos(SZA)^{1.2} + 30$
Temp (°C)	QCP based on extrema $-90 < Temp < +60$ / QCP based on rare observations $-80 < Temp < +50$	QCP based on extrema $-90 < Temp < +60$ / QCP based on rare observations $-80 < Temp < +50$	QCP based on extrema $-90 < Temp < +60$ / QCP based on rare observations $-80 < Temp < +50$ / Step QCP Maximum step for two following measures: 8 °C	QCP based on extrema $-90 < Temp < +60$ / QCP based on rare observations $-80 < Temp < +50$ / Step QCP Maximum step for two following measures: 3 °C / Minimum step over the past 60 minutes: 0.1 °C
Hum (%)	QCP based on extrema $0 < Hum < 100$	QCP based on extrema $0 < Hum < 100$	QCP based on extrema $0 < Hum < 100$ / Step QCP Maximum step for two following values: 30 %	QCP based on extrema $0 < Hum < 100$ / Step QCP Maximum step for two following values: 10 % / Minimum step over the past 120 minutes: 0.1 %
WS $(m\ s^{-1})$			Step QCP maximum step for two following values: 15 m s⁻¹	QCP based on extrema (2-min average) $0 < WS < 150$ / QCP based on rare observations (2-min average) $0 < WS < 80$ / Step QCP maximum step for two following values (2-min average): 20 m s⁻¹ / Minimum step over the past 60 minutes except for no wind periods (1-minute average): 0.5 m s⁻¹
Consistency checks	DHI ≤ 1.1 GHI	DHI ≤ 1.1 GHI	For GHI > 20 W m⁻² (if not, test not possible) $GHI / (BHI + DHI) = 0.15$ / DHI ≤ 1.1 GHI	For GHI > 50 (if not, test not possible): DHI/GHI < 1.05, for SZA < 75° ; DHI/GHI < 1.10, for 93°> SZA > 75° / For DHI+BHI > 50 (if not, test not possible) $GHI / (BHI+DHI) \leq 0.08$, for SZA < 75° ; $GHI / (BHI+DHI) \leq 0.15$, for 75°< SZA <93°

Table B-6: QCPs for all the variables used in ENSORSE Project and all the time average periods.