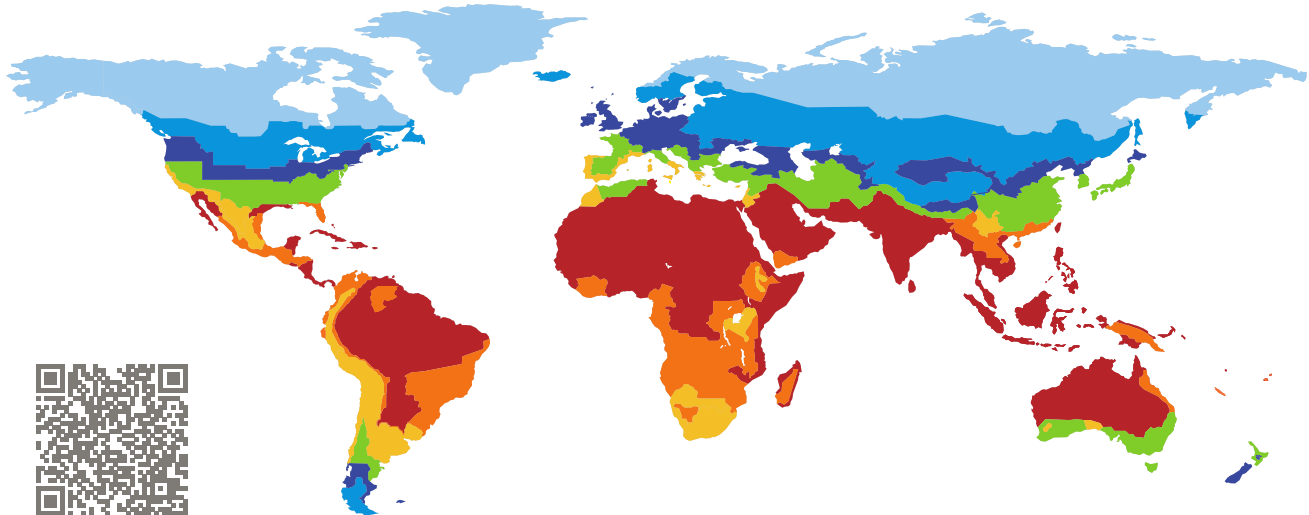


CERTIFICATE

Certified Passive House Component

Component-ID 1047sr03 valid until 31st December 2017

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: **Shower Water Heat Recovery**
Manufacturer: **Q-Blue B.V.,
Emmen,
Netherlands**
Product name: **Showersave QB1-21D @ 20 l/min**

This certificate was awarded based on the following criteria:

Tested under standard boundary conditions¹ the system reduces the useful energy demand for shower by

$$53\% \geq 30\%$$

Further properties

Pressure drop tap water at 8 l/min: 0.42 bar
Connection tap water: 1/2" IG
Connection waste water: DN 50

steady-state efficiency
66 %
effective dead time
5 s
design flow rate
20 l/min

¹Balanced flow rates, cold water temperature 10 °C, Temperature at shower head 40 °C, waste water temperature 35 °C, negligible pipe length, shower time 6 min, flow rate 8 l/min

Passive House
efficiency class

phE

phD

phC

phB

phA

phA+

all climate zones



**CERTIFIED
COMPONENT**

Passive House Institute