Q20-/Q80-HEAT DISTRIBUTOR

STRUCTURE

The Q-Heat Distributor plays an important role in the XRGI® system. It:

- Separates the (primary) engine circuit from the heating network
- Protects the primary circuit
- Controls the engine temperature
- Controls the system temperature
- Manages loading and unloading of the storage tank
- Manages energy flows

Fig. 1. - Q20/Q80

Fig. 2. - Q20

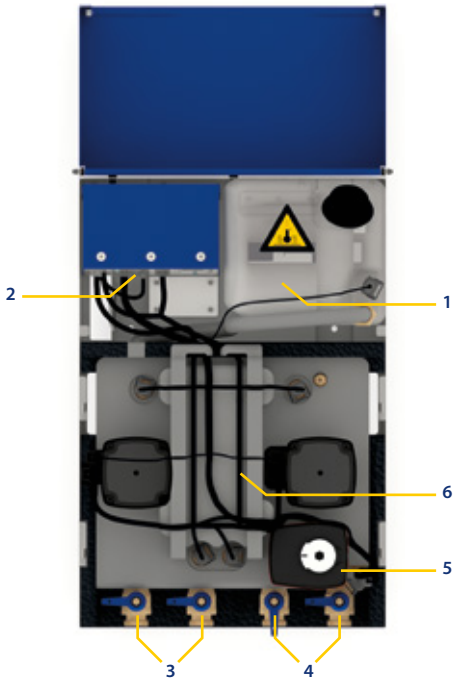
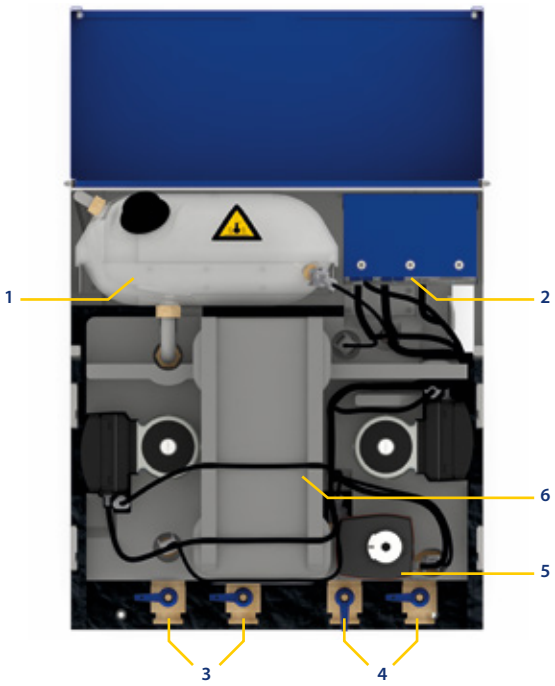


Fig. 3. - Q80



Key:

1. Cooling water expansion tank
2. Two connections for Q-Network an two for the iQ-Control Panel an Power Unit.
3. Power Unit connections
4. Storage tank connections
5. Mixer to control the engine temperature
6. Plate heat exchanger

DIMENSIONS AND CONNECTIONS

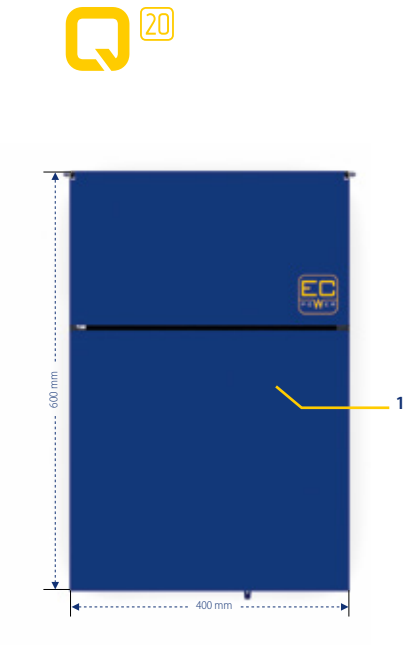


Fig. 4.

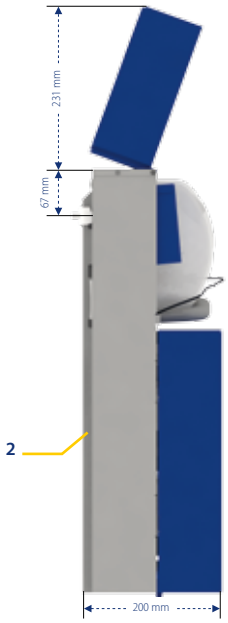


Fig. 5.

Key:

1. Cover (insulated)
2. Installation plate
3. Power Unit return (1“ PT)
4. Power Unit flow (1“ PT)
5. Storage tank connection (1“ PT)
6. Storage tank connection (1“ PT)

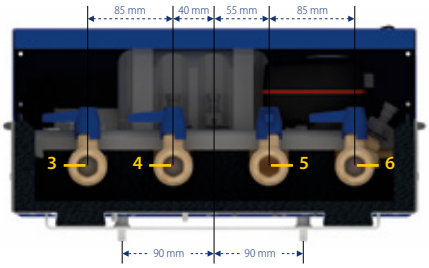


Fig. 6.

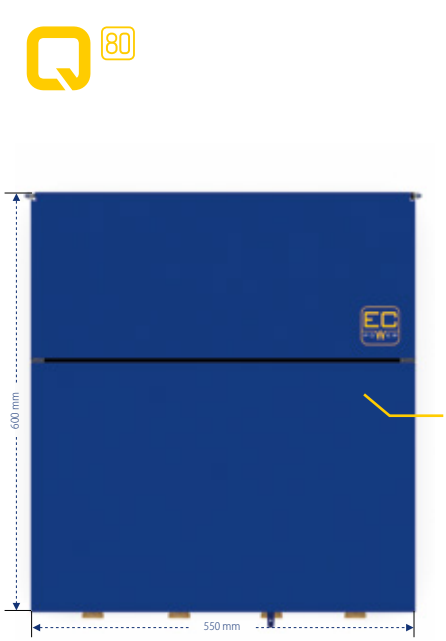


Fig. 7.

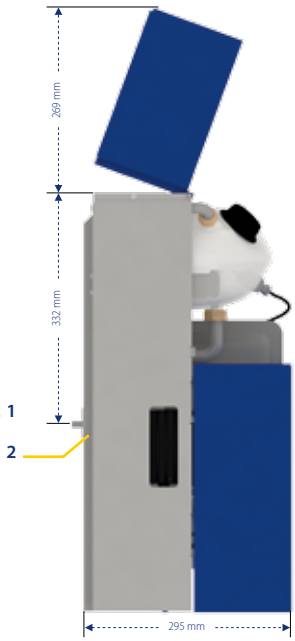


Fig. 8.

Key:

1. Cover (insulated)
2. Installation plate
3. Power Unit return (1 ¼“ PT)
4. Power Unit flow (1 ¼“ PT)
5. Storage tank connection (1 ¼“ PT)
6. Storage tank connection (1 ¼“ PT)

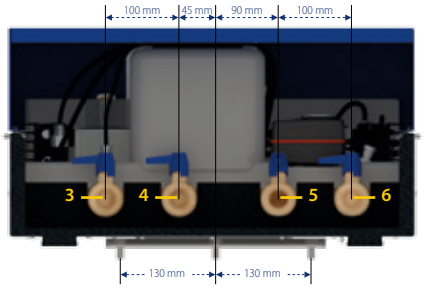
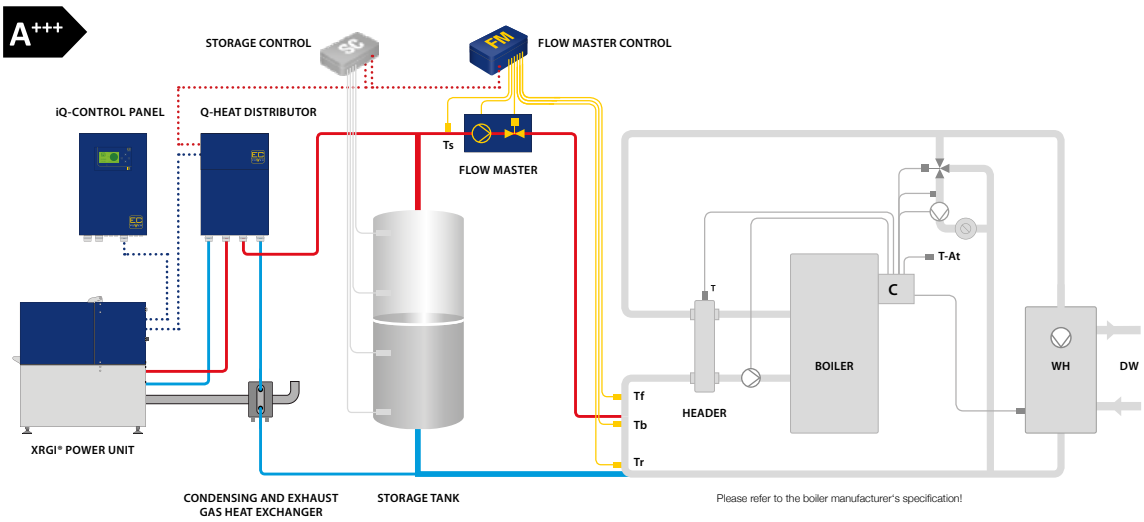


Fig. 9.

HYDRAULIC INTEGRATION

Principle circuit diagram: Series circuit with injection – boiler with header



More principle circuit diagrams and information can be found in the EC POWER „Hydraulic Solutions".

NOTE:
If products from other companies are used in the system in addition to EC Power products, EC POWER assumes no liability for the accuracy of the energy efficiency class calculation for the entire system.

XRGI® system		XRGI® 6 without condensing technology[1]	XRGI® 6 with condensing technology[1]
Flow temperature, constant	°C	~ 80	~ 80
Return temperature, variable	°C	5-70	5-70

FUELS

Natural gas (all qualities), propane, butane	yes	yes

EXHAUST GAS

Power modulation			50 %	75 %	100 %	50 %	75 %	100 %
Max. exhaust gas temperature		°C	-	-	100	-	-	90
Condensate		kg/h	-	-	-	1.2	1.4	1.5
Emissions (test data)	CO < 150	mg/Nm³	-	-	12	-	-	12
	NOx < 350	mg/Nm³	-	-	319	-	-	336

SOUND

Sound pressure level at a distance of up to 1 m (based on surroundings)	dB(A)	49

POWER CONNECTION

Voltage, 3 phases + N + Earth	V	400
Frequency	Hz	50

SERVICE

Service interval (operating hours)	Hours	10,000

DIMENSIONS AND WEIGHT

		XRGI® 6 Power Unit	Q20-Heat Distributor	iQ10-Control Panel
Dimensions, W x H x D	mm	640 x 960 x 920	400 x 600 x 195	400 x 600 x 210
Footprint	m²	0.59	wall mounted	wall mounted
Weight	kg	440	25	30

All values are net and have been certified by an independent inspection body. Tolerance ±5 %.
Specifications subject to change without notice.

	Q 20	Q 80
STORAGE CHARGING CIRCUITS		
Thermal capacity (**kW**, adjustable)	5 – 20	20 – 80
Vokume flow (**m³/h**, adjustable)	1,0 – 2,3	2,5 – 6,0
Permissle floe temperature (**°C**, adjustable)	80 – 90	80 – 90
Max. permissible return temperature (**°C**)	70	75
Max. permissible pressure in the system (**bar**)	10	10
Protective valve (**bar**)	na	na
PUMP STORAGE CHARGING CIRCUIT		
Manufacturer	GRUNDFOS	GRUNDFOS
Type	UPM3 15-75 130	UPMXL 25-125 180
Max. transport height (**m**)	7,5	12,5
Max. transport valume flow (**m³/h**)	3	6
Pump housing material	Cast iron GS 111B0003	Cast iron EN-GJL-150
Wheel material	Composite	Composite
Type of pipe connection	Rear connection	Rear connection
Nominal pressure (**bar**)	10	10
Permissible media temperature	95 (110)	95 (110)
Net weight (dry) (**kg**)	1,8	2,4
Colour	Aluminium unpainted pump head	Aluminium black pump head
Control signal	PWM	PWM

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