20.2 QUANTIX 6 S - Low Temperature Fiche

Model: **Quantix 6 S with Quantix Pre-packaged cylinder 180/60**		**Low Temperature table (30/35), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	4.475	kW	Seasonal space heating energy efficiency	*ηs*	195.4	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	3.959	kW	Tj = – 7 °C	*COPd*	3.14	-
Tj = + 2 °C	*Pdh*	2.628	kW	Tj = + 2 °C	*COPd*	4.91	-
Tj = + 7 °C	*Pdh*	1.962	kW	Tj = + 7 °C	*COPd*	6.63	-
Tj = + 12 °C	*Pdh*	2.332	kW	Tj = + 12 °C	*COPd*	8.81	-
Tj = bivalent temperature	*Pdh*	3.959	kW	Tj = bivalent temperature	*COPd*	3.14	-
T j = operation limit temperature	*Pdh*	4.244	kW	T j = operation limit temperature	*COPd*	2.81	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.010	kW	Rated heat output	*Psup*	0.231	kW
Thermostat-off mode	P_{TO}	0.011	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.042	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		1800	m^3/h
Sound power level, indoors/outdoors	L_{WA}	57	dB	Annual energy consumption	Q_{HE}	1864	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	109.2	%
Daily electricity consumption	Q_{ELEC}	7.35	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1535	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	55.5	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	55.91	°C
Volume of mixed water at 40°C	V_{40}	237	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						

20.3 QUANTIX 6 S - Medium Temperature Fiche

Model: **Quantix 6 S with Quantix Pre-packaged cylinder 180/60**		**Medim Temperature table (50/55), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	4.751	kW	Seasonal space heating energy efficiency	*ηs*	140.6	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	4.203	kW	Tj = – 7 °C	*COPd*	2.22	-
Tj = + 2 °C	*Pdh*	2.627	kW	Tj = + 2 °C	*COPd*	3.52	-
Tj = + 7 °C	*Pdh*	1.793	kW	Tj = + 7 °C	*COPd*	4.77	-
Tj = + 12 °C	*Pdh*	2.040	kW	Tj = + 12 °C	*COPd*	6.26	-
Tj = bivalent temperature	*Pdh*	4.203	kW	Tj = bivalent temperature	*COPd*	2.22	-
T j = operation limit temperature	*Pdh*	4.475	kW	T j = operation limit temperature	*COPd*	2.06	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.010	kW	Rated heat output	*Psup*	0.276	kW
Thermostat-off mode	P_{TO}	0.011	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.042	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		1800	m^3/h
Sound power level, indoors/outdoors	L_{WA}	57	dB	Annual energy consumption	Q_{HE}	2735	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	109.2	%
Daily electricity consumption	Q_{ELEC}	7.35	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1535	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	55.5	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	55.91	°C
Volume of mixed water at 40°C	V_{40}	237	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						

20.6 QUANTIX 12 S - Low Temperature Fiche

Model: **Quantix 12 with Quantix Pre-packaged cylinder 180/60**		**Low Temperature table (30/35), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	7.58	kW	Seasonal space heating energy efficiency	*ηs*	189.6	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	6.705	kW	Tj = – 7 °C	*COPd*	3.11	-
Tj = + 2 °C	*Pdh*	4.159	kW	Tj = + 2 °C	*COPd*	4.70	-
Tj = + 7 °C	*Pdh*	2.745	kW	Tj = + 7 °C	*COPd*	6.31	-
Tj = + 12 °C	*Pdh*	3.198	kW	Tj = + 12 °C	*COPd*	8.20	-
Tj = bivalent temperature	*Pdh*	6.705	kW	Tj = bivalent temperature	*COPd*	3.11	-
T j = operation limit temperature	*Pdh*	7.006	kW	T j = operation limit temperature	*COPd*	2.77	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.009	kW	Rated heat output	*Psup*	0.574	kW
Thermostat-off mode	P_{TO}	0.009	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.009	kW				
Crankcase heater mode	P_{CK}	0.042	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		3200	m^3/h
Sound power level, indoors/outdoors	L_{WA}	60	dB	Annual energy consumption	Q_{HE}	3253	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	94.6	%
Daily electricity consumption	Q_{ELEC}	8.065	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1774	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	55.50	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	55.46	°C
Volume of mixed water at 40°C	V_{40}	227	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						

20.7 QUANTIX 12 S - Medium Temperature Fiche

Model: **Quantix 12 S with Quantix Pre-packaged cylinder 180/60**		**Medim Temperature table (50/55), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	7.621	kW	Seasonal space heating energy efficiency	*ηs*	138.1	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	6.741	kW	Tj = – 7 °C	*COPd*	2.18	-
Tj = + 2 °C	*Pdh*	4.119	kW	Tj = + 2 °C	*COPd*	3.44	-
Tj = + 7 °C	*Pdh*	2.758	kW	Tj = + 7 °C	*COPd*	4.73	-
Tj = + 12 °C	*Pdh*	2.774	kW	Tj = + 12 °C	*COPd*	6.06	-
Tj = bivalent temperature	*Pdh*	6.741	kW	Tj = bivalent temperature	*COPd*	2.18	-
T j = operation limit temperature	*Pdh*	6.842	kW	T j = operation limit temperature	*COPd*	1.96	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.009	kW	Rated heat output	*Psup*	0.779	kW
Thermostat-off mode	P_{TO}	0.009	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.009	kW				
Crankcase heater mode	P_{CK}	0.042	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		3200	m^3/h
Sound power level, indoors/outdoors	L_{WA}	60	dB	Annual energy consumption	Q_{HE}	4462	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	94.6	%
Daily electricity consumption	Q_{ELEC}	8.065	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1774	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	55.50	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	55.46	°C
Volume of mixed water at 40°C	V_{40}	227	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						

20.10 QUANTIX 22 ST - Low Temperature Fiche

Model: **Quantix 225 ST with Quantix Pre-packaged cylinder 180/60**		**Low Temperature table (30/35), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	14.707	kW	Seasonal space heating energy efficiency	*ηs*	191.6	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	13.010	kW	Tj = – 7 °C	*COPd*	3.13	-
Tj = + 2 °C	*Pdh*	7.972	kW	Tj = + 2 °C	*COPd*	4.83	-
Tj = + 7 °C	*Pdh*	5.170	kW	Tj = + 7 °C	*COPd*	6.12	-
Tj = + 12 °C	*Pdh*	5.813	kW	Tj = + 12 °C	*COPd*	8.32	-
Tj = bivalent temperature	*Pdh*	13.010	kW	Tj = bivalent temperature	*COPd*	3.13	-
T j = operation limit temperature	*Pdh*	14.388	kW	T j = operation limit temperature	*COPd*	2.63	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.011	kW	Rated heat output	*Psup*	0.319	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.011	kW				
Crankcase heater mode	P_{CK}	0.048	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		5500	m^3/h
Sound power level, indoors/outdoors	L_{WA}	63	dB	Annual energy consumption	Q_{HE}	6244	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	91.6	%
Daily electricity consumption	Q_{ELEC}	8.328	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1832	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	51.50	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	51.52	°C
Volume of mixed water at 40°C	V_{40}	212	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						

20.11 QUANTIX 22 ST - Medium Temperature Fiche

Model: **Quantix 22 ST with Quantix Pre-packaged cylinder 180/60**		**Medim Temperature table (50/55), average climate zones**
Air-to-water heat pump: **Yes**	Water-to-water heat pump: **No**	Product fiche concerning the COMMISSION DELEGATED REGULATIONS (EU) No 811/2013 of 18 February 2013, (EU)No 813/2013 of 02 August 2013. Data per EN14825 / EN 16147
Brine-to-water heat pump: **No**	Low-temperature heat pump: **No**	
Equipped with a supplementary heater: **No**		
Heat pump combination heater: **Yes**		The Parameters are declared for average climatic conditions

Element	**Symbol**	**Value**	**Unit**	**Element**	**Symbol**	**Value**	**Unit**
Rated Heat Output	*Prated*	14.851	kW	Seasonal space heating energy efficiency	*ηs*	141.4	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = – 7 °C	*Pdh*	13.138	kW	Tj = – 7 °C	*COPd*	2.31	-
Tj = + 2 °C	*Pdh*	8.107	kW	Tj = + 2 °C	*COPd*	3.53	-
Tj = + 7 °C	*Pdh*	5.245	kW	Tj = + 7 °C	*COPd*	4.57	-
Tj = + 12 °C	*Pdh*	5.600	kW	Tj = + 12 °C	*COPd*	6.58	-
Tj = bivalent temperature	*Pdh*	13.138	kW	Tj = bivalent temperature	*COPd*	2.31	-
T j = operation limit temperature	*Pdh*	14.793	kW	T j = operation limit temperature	*COPd*	1.94	-
for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW	for air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	*COPd*	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW	Cycling interval efficiency	COP_{cyc} or PER_{cyc}	-	-
Degradation co-efficient	*Cdh*	0.90	-	Heating water operating limit temperature	*WTOL*	75	°C
Power consumption in modes other than active mode				**Supplementary heater**			
OFF mode	P_{OFF}	0.013	kW	Rated heat output	*Psup*	0.058	kW
Thermostat-off mode	P_{TO}	0.015	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.013	kW				
Crankcase heater mode	P_{CK}	0.080	kW				
Other items							
Capacity Control	Variable			Air-to-water heat pumps: Rated air flow rate, outdoors		5500	m^3/h
Sound power level, indoors/outdoors	L_{WA}	63	dB	Annual energy consumption	Q_{HE}	8502	kWh or GJ
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	*ηwh*	91.6	%
Daily electricity consumption	Q_{ELEC}	8.328	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1832	kWh	Annual fuel consumption	*AFC*	-	GJ
Additional Water Heating Declarations							
Standing heat loss		1.989	kWh/day	Thermostat temperature	-	51.50	°C
Storage volume	V_m	180	l	Reference hot water temperature	θ'_{WH}	51.52	°C
Volume of mixed water at 40°C	V_{40}	212	l				
Contact information	RVR Energy Technology Ltd., Gortamullen, Sneem Road, Kenmare, Co. Kerry, V93F386, Ireland						