

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	137	%
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	12.0	kW	Tj = − 7 °C	COPd	2.23	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 °C	Pdh	7.2	kW	Tj = 2 °C	COPd	3.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	4.5	kW	Tj = 7 °C	COPd	4.72	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12 °C	Pdh	3.1	kW	Tj = 12 °C	COPd	5.65	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	12.0	kW	Tj = bivalent temperature	COPd	2.23	–
Tj = operation limit temperature	Pdh	11.8	kW	Tj = operation limit temperature	COPd	2.00	–
For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COP _{psych}	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	Psup	1.2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	8045	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	122	%
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	8.3	kW	Tj = − 7 °C	COPd	2.62	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	5.1	kW	Tj = 2 °C	COPd	3.84	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	3.0	kW	Tj = 7 °C	COPd	4.58	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12 °C	Pdh	3.2	kW	Tj = 12 °C	COPd	5.97	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	11.0	kW	Tj = bivalent temperature	COPd	2.05	–
Tj = operation limit temperature	Pdh	4.0	kW	Tj = operation limit temperature	COPd	1.08	–
For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	Pdh	11.0	kW	For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	COPd	2.05	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	Psup	9.0	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	10672	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	180	%
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	NA	kW	Tj = - 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	13.7	kW	Tj = 2 °C	COPd	2.32	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 °C	Pdh	9.0	kW	Tj = 7 °C	COPd	3.71	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12 °C	Pdh	4.1	kW	Tj = 12 °C	COPd	6.34	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	13.7	kW	Tj = bivalent temperature	COPd	2.32	–
Tj = operation limit temperature	Pdh	13.7	kW	Tj = operation limit temperature	COPd	2.32	–
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	4017	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_s	183	%
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	11.0	kW	Tj = - 7 °C	COPd	2.79	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	6.2	kW	Tj = 2 °C	COPd	4.48	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	4.3	kW	Tj = 7 °C	COPd	6.54	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12°C	Pdh	3.2	kW	Tj = 12°C	COPd	7.24	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	11.0	kW	Tj = bivalent temperature	COPd	2.79	–
Tj = operation limit temperature	Pdh	10.7	kW	Tj = operation limit temperature	COPd	2.74	–
For air-to-water heat pumps: Tj = - 15°C (if TOL < - 20°C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = - 15°C (if TOL < - 20°C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	1.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	5535	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	165	%
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	6.5	kW	Tj = - 7 °C	COPd	3.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	4.7	kW	Tj = 2 °C	COPd	5.49	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 °C	Pdh	2.8	kW	Tj = 7 °C	COPd	5.83	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12 °C	Pdh	3.2	kW	Tj = 12 °C	COPd	7.02	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.5	kW	Tj = bivalent temperature	COPd	2.64	–
Tj = operation limit temperature	Pdh	7.8	kW	Tj = operation limit temperature	COPd	1.83	–
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	9.5	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.64	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	Psup	4.2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	6908	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 114 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_s	260	%
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	NA	kW	Tj = − 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	12.3	kW	Tj = 2 °C	COPd	3.49	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	7.5	kW	Tj = 7 °C	COPd	5.35	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12°C	Pdh	3.4	kW	Tj = 12°C	COPd	9.06	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	12.3	kW	Tj = bivalent temperature	COPd	3.49	–
Tj = operation limit temperature	Pdh	12.3	kW	Tj = operation limit temperature	COPd	3.49	–
For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	2513	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	η_s	137	%
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	12.0	kW	Tj = -7 °C	COPd	2.23	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 °C	Pdh	7.2	kW	Tj = 2 °C	COPd	3.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	4.5	kW	Tj = 7 °C	COPd	4.72	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12 °C	Pdh	3.1	kW	Tj = 12 °C	COPd	5.65	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	12.0	kW	Tj = bivalent temperature	COPd	2.23	–
Tj = operation limit temperature	Pdh	11.8	kW	Tj = operation limit temperature	COPd	2.00	–
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	8045	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	122	%
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	8.3	kW	Tj = − 7 °C	COPd	2.62	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	5.1	kW	Tj = 2 °C	COPd	3.84	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	3.0	kW	Tj = 7 °C	COPd	4.58	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12 °C	Pdh	3.2	kW	Tj = 12 °C	COPd	5.97	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	11.0	kW	Tj = bivalent temperature	COPd	2.05	–
Tj = operation limit temperature	Pdh	4.0	kW	Tj = operation limit temperature	COPd	1.08	–
For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	Pdh	11.0	kW	For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	COPd	2.05	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	9	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	10672	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	178	%
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	NA	kW	Tj = − 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	13.7	kW	Tj = 2 °C	COPd	2.32	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 °C	Pdh	8.9	kW	Tj = 7 °C	COPd	3.65	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12 °C	Pdh	4.0	kW	Tj = 12 °C	COPd	6.30	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	13.7	kW	Tj = bivalent temperature	COPd	2.32	–
Tj = operation limit temperature	Pdh	13.7	kW	Tj = operation limit temperature	COPd	2.32	–
For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	4055	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	η_s	181	%
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	11.6	kW	Tj = - 7 °C	COPd	2.76	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	6.5	kW	Tj = 2 °C	COPd	4.40	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	4.5	kW	Tj = 7 °C	COPd	6.63	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12 °C	Pdh	3.3	kW	Tj = 12 °C	COPd	7.34	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	11.6	kW	Tj = bivalent temperature	COPd	2.76	–
Tj = operation limit temperature	Pdh	10.7	kW	Tj = operation limit temperature	COPd	2.74	–
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	Psup	2.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	5886	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_s	165	%
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	6.5	kW	Tj = -7 °C	COPd	3.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	4.7	kW	Tj = 2 °C	COPd	5.49	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 °C	Pdh	2.8	kW	Tj = 7 °C	COPd	5.83	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12 °C	Pdh	3.2	kW	Tj = 12 °C	COPd	7.02	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.5	kW	Tj = bivalent temperature	COPd	2.64	–
Tj = operation limit temperature	Pdh	7.8	kW	Tj = operation limit temperature	COPd	1.83	–
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	9.5	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	2.64	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	4.2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	6908	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 M+IUB 16M							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	266	%
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	NA	kW	Tj = − 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	13.1	kW	Tj = 2 °C	COPd	3.19	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	8.4	kW	Tj = 7 °C	COPd	5.60	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12°C	Pdh	3.7	kW	Tj = 12°C	COPd	9.24	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	13.1	kW	Tj = bivalent temperature	COPd	3.19	–
Tj = operation limit temperature	Pdh	13.1	kW	Tj = operation limit temperature	COPd	3.19	–
For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	2610	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	η_s	131	%
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	11.6	kW	Tj = -7 °C	COPd	1.96	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 °C	Pdh	7.3	kW	Tj = 2 °C	COPd	3.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	4.2	kW	Tj = 7 °C	COPd	4.48	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12 °C	Pdh	3.1	kW	Tj = 12 °C	COPd	5.65	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	11.6	kW	Tj = bivalent temperature	COPd	1.96	–
Tj = operation limit temperature	Pdh	11.0	kW	Tj = operation limit temperature	COPd	1.81	–
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	7962	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	η_s	119	%
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	8.6	kW	Tj = − 7 °C	COPd	2.63	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	4.7	kW	Tj = 2 °C	COPd	3.69	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	3.0	kW	Tj = 7 °C	COPd	4.58	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12°C	Pdh	3.2	kW	Tj = 12°C	COPd	5.97	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	10.5	kW	Tj = bivalent temperature	COPd	1.83	–
Tj = operation limit temperature	Pdh	4.0	kW	Tj = operation limit temperature	COPd	1.08	–
For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	Pdh	10.5	kW	For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	COPd	1.83	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	9	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	10480	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	171	%
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	NA	kW	Tj = - 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	13.7	kW	Tj = 2 °C	COPd	2.29	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 °C	Pdh	9.3	kW	Tj = 7 °C	COPd	3.59	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12 °C	Pdh	4.2	kW	Tj = 12 °C	COPd	5.84	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = bivalent temperature	Pdh	13.7	kW	Tj = bivalent temperature	COPd	2.29	–
Tj = operation limit temperature	Pdh	13.7	kW	Tj = operation limit temperature	COPd	2.29	–
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	4293	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	175	%
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	11.1	kW	Tj = - 7 °C	COPd	2.68	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	6.5	kW	Tj = 2 °C	COPd	4.35	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 °C	Pdh	4.2	kW	Tj = 7 °C	COPd	6.05	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12 °C	Pdh	3.3	kW	Tj = 12 °C	COPd	7.34	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	11.1	kW	Tj = bivalent temperature	COPd	2.68	–
Tj = operation limit temperature	Pdh	10.7	kW	Tj = operation limit temperature	COPd	2.61	–
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	1.3	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	6018	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	156	%
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	6.6	kW	Tj = − 7 °C	COPd	3.29	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 °C	Pdh	4.5	kW	Tj = 2 °C	COPd	4.85	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 °C	Pdh	2.8	kW	Tj = 7 °C	COPd	5.83	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12°C	Pdh	3.4	kW	Tj = 12°C	COPd	7.17	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	10.1	kW	Tj = bivalent temperature	COPd	2.57	–
Tj = operation limit temperature	Pdh	7.8	kW	Tj = operation limit temperature	COPd	1.75	–
For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	Pdh	10.1	kW	For air-to-water heat pumps: Tj = − 15°C (if TOL < − 20°C)	COPd	2.57	–
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	4.2	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ /h
Annual energy consumption	Q _{HE}	7438	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.							

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): MHAITI 116 T+IUB 16T							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	236	%
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	NA	kW	Tj = − 7 °C	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 °C	Pdh	13.0	kW	Tj = 2 °C	COPd	3.00	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 °C	Pdh	8.1	kW	Tj = 7 °C	COPd	5.14	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12 °C	Pdh	3.7	kW	Tj = 12 °C	COPd	7.84	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	13.0	kW	Tj = bivalent temperature	COPd	3.00	–
Tj = operation limit temperature	Pdh	13.0	kW	Tj = operation limit temperature	COPd	3.00	–
For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15 °C (if TOL < − 20 °C)	COPd	NA	–
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.025	kW	Rated heat output (*)	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P _{SB}	0.025	kW				
Crankcase heater mode	P _{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m ³ / h
Sound power level, indoors/outdoors	L _{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m ³ / h
Annual energy consumption	Q _{HE}	2903	kWh				
Contact details: Via Oltre Ferrovia 32 - 33033 Codroipo (Ud)				Name of the supplier: RHOSS S.P.A			
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

ITALIANO	ENGLISH	FRANCAIS	DEUTSCH	ESPAÑOL
MODELLO:	MODEL	MODÈLE(S)	MODELL(E)	MODELOS
Pompa di calore Aria-Acqua	Air to Water heat pump	Pompes à chaleur air-eau	Luft-Wasser-Wärmepumpe	Bomba de calor aire-agua
Pompa di calore Acqua-Acqua	Water to Water heat pump	Pompes à chaleur eau-eau	Wasser-Wasser-Wärmepumpe	Bomba de calor agua-agua
Pompa di calore Acqua glicolata-Acqua	Brine to Water heat pump	Pompe à chaleur eau glycolée-eau	Sole-Wasser-Wärmepumpe	Bomba de calor salmuera-agua
Pompa di calore a Bassa Temperatura	Low temperature heat pump	Pompes à chaleur basse température	Niedertemperatur-Wärmepumpe	Bomba de calor de baja temperatura
Equipaggiata con riscaldatore supplementare	Equipped with supplementary heater	Équipée d'un dispositif de chauffage d'appoint	Mit Zusatzheizgerät	Equipado con un calefactor complementario
Pompa di calore Mista	Heat pump combination heater	Dispositif de chauffage mixte par pompe à chaleur	Kombiheizgerät mit Wärmepumpe	Calefactor combinado con bomba de calor
Elemento	Item	Caractéristique	Angabe	Elemento
Simbolo	Symbol	Symbole	Symbol	Símbolo
Clima	Climate	Conditions climatiques	Klimaverhältnisse	Condiciones climáticas
Valore	Value	Valeur	Wert	Valor
Unità	Unit	Unité	Einheit	Unidad
Potenza termica nominale	Rated heat output	Puissance thermique nominale	Wärmenennleistung	Potencia calorífica nominal
Capacità di riscaldamento dichiarata a carico parziale, con temperatura interna pari a 20 °C e temperatura esterna Tj	Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj	Puissance calorifique déclarée à charge partielle pour une température intérieure de 20 °C et une température extérieure Tj	Angegebene Leistung für Teillast bei Raumlufttemperatur 20 °C und Außenlufttemperatur Tj	Capacidad de calefacción declarada para una carga parcial a una temperatura interior de 20 °C y una temperatura exterior Tj
Tj = temperatura bivalente	Tj = bivalent temperature	Tj = température bivalente	Tj = Bivalenttemperatur	Tj = temperatura bivalente
Tj = temperatura limite di esercizio	Tj = operation limit temperature	Tj = température limite de fonctionnement	Tj = Betriebstemperaturgrenzwert	Tj = temperatura límite de funcionamiento
Temperatura bivalente	Bivalent temperature	Température bivalente	Bivalenttemperatur	Temperatura bivalente
Ciclicità degli intervalli di capacità per il riscaldamento	Cycling interval capacity for heating	Puissance calorifique sur un intervalle cyclique	Leistung bei zyklischem Intervall-Heizbetrieb	Eficiencia del intervalo cíclico para calefacción
Coefficiente di degradazione	Degradation co-efficient	Coefficient de dégradation	Minderungsfaktor	Coefficiente de degradación
Consumo energetico in modi diversi dal modo attivo	Power consumption in modes other than active mode	Consommation d'électricité dans les modes autres que le mode actif	Stromverbrauch in anderen Betriebsarten als dem Betriebszustand	Consumo de electricidad en modos distintos del activo
Modo spento	Off mode	Mode arrêt	Aus-Zustand	Modo desactivado
Modo termostato spento	Thermostat-off mode	Mode arrêt par thermostat	Thermostat-aus-Zustand	Modo desactivado por termostato
Modo stand-by	Standby mode	Mode veille	Bereitschaftszustand	Modo de espera
Modo riscaldamento del carter	Crankcase heater mode	Mode résistance de carter active	Betriebszustand mit Kurbelgehäuseheizung	Modo de calentador del cárter
Altri elementi	Other items	Autres caractéristiques	Sonstige Elemente	Otros elementos
Controllo della capacità	Capacity control	Régulation de la puissance	Leistungssteuerung	Control de capacidad
Livello della potenza sonora, all'interno/all'esterno	Sound power level, indoors/outdoors	Niveau de puissance acoustique, à l'intérieur/à l'extérieur	Schalleistungspegel, innen/außen	Nivel de potencia acústica (interior/exterior)
fisso/variabile	fixed/variable	fixe/variable	fest/veränderlich	fijo/variable
Efficienza energetica stagionale del riscaldamento d'ambiente	Seasonal space heating energy efficiency	Efficacité énergétique saisonnière pour le chauffage des locaux	Jahreszeitbedingte Raumheizungs-Energieeffizienz	Efficiencia energética estacional de calefacción
Coefficiente di prestazione dichiarato o indice di energia primaria per carico parziale, con temperatura interna pari a 20 °C e temperatura esterna Tj	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj	Coefficient de performance déclaré ou coefficient sur énergie primaire déclaré à charge partielle pour une température intérieure de 20 °C et une température extérieure Tj	Angegebene Leistungszahl oder Heizzahl für Teillast bei Raumlufttemperatur 20 °C und Außenlufttemperatur Tj	Coefficiente de rendimiento declarado o factor energético primario para una carga parcial a una temperatura interior de 20 °C y una temperatura exterior Tj
Tj = temperatura limite di esercizio	Tj = bivalent temperature	Tj = température bivalente	Tj = Bivalenttemperatur	Tj = temperatura bivalente
Per le pompe di calore aria/acqua: temperatura limite di esercizio	Tj = operation limit temperature	Tj = température limite de fonctionnement	Tj = Betriebstemperaturgrenzwert	Tj = temperatura límite de funcionamiento
Efficienza della ciclicità degli intervalli	For air-to-water heat pumps: Operation limit temperature	Pour les pompes à chaleur air-eau: température limite de fonctionnement	Für Luft-Wasser-Wärmepumpen: Betriebsgrenzwert-Temperatur	Para bombas de calor aire-agua: Temperatura límite de funcionamiento
Temperatura limite di esercizio di riscaldamento dell'acqua	Cycling interval efficiency	Efficacité sur un intervalle cyclique	Leistungszahl bei zyklischem Intervallbetrieb	Eficiencia del intervalo cíclico
Tj = temperatura limite di esercizio	For air-to-water heat pumps: Operation limit temperature	Température maximale de service de l'eau de chauffage	Grenzwert der Betriebstemperatur des Heizwassers	Temperatura límite de calentamiento de agua
Per le pompe di calore aria/acqua: portata d'aria, all'esterno	For air-to-water heat pumps: Rated air flow rate, outdoors	Pour les pompes à chaleur air-eau: débit d'air nominal, à l'extérieur	Für Luft-Wasser-Wärmepumpen: Nenn-Luftdurchsatz, außen	Para bombas de calor aire-agua: Caudal de aire nominal (exterior)
Per le pompe di calore acqua/acqua e salamoia/acqua: flusso di salamoia o acqua nominale, scambiatore di calore all'esterno	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Pour les pompes à chaleur eau-eau ou eau glycolée-eau: débit nominal d'eau glycolée ou d'eau, échangeur thermique extérieur	Für Wasser/Sole-Wasser-Wärmepumpen: Wasser- oder Sole-Nenndurchsatz	Para bombas de calor agua/salmuera a agua: Caudal de salmuera o de agua nominal, intercambiador de calor de exterior
(*) Temperatura d'uscita variabile	(*) Variable outlet temperature	(*) Sortie variable de température	(*) Temperatur variable Ausgangs	(*) Variable de temperatura de salida
Più Freddo	Colder	Plus froides	kälter	Mas frías
Medio	Average	Moyennes	durchschnittl	media
Più caldo	Warmer	Plus chaudes	wärmer	Mas calida
Consumo energetico annuo	Annual energy consumption	Consommation annuelle d'énergie	Jährlichen Energieverbrauch	Consumo anual de energía
Classe di efficienza energetica	Energy efficiency classes	Clases de eficiencia energética	Classes d'efficacité énergétique	Energieeffizienzklassen