

<b>Model</b>	<b>SIP 160</b>
Air-to-water heat pump: (yes/no)	no
Brine-to-water heat pump: (yes/no)	yes
Water-to-water heat pump: (yes/no)	no
Low-temperature heat pump: (yes/no)	no
Equipped with supplementary heater: (yes/no)	no
combination heater with: (yes/no)	no
application: (low/medium)	medium
climate: (colder/average/warmer)	average

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Rated heat output</b>	Prated	162	kW	<b>Seasonal space heating energy efficiency</b>	$\eta_S$	116,0	%
<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>				<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj = -7°C	Pdh	161,8	kW	Tj = -7°C	COPd	3,05	-
Tj = +2°C	Pdh	161,7	kW	Tj = +2°C	COPd	3,47	-
Tj = +7°C	Pdh	161,7	kW	Tj = +7°C	COPd	3,79	-
Tj = +12°C	Pdh	161,6	kW	Tj = +12°C	COPd	4,18	-
Tj = bivalent temperature	Pdh	161,9	kW	Tj = bivalent temperature	COPd	2,95	-
Tj = operation limit temperature	Pdh	161,9	kW	Tj = operation limit temperature	COPd	2,95	-
For air-to-water heat pumps: Tj = +15°C (if TOL < -20°C)	Pdh	161,9	kW	For air-to-water heat pumps: Tj = +15°C (if TOL < -20°C)	COPd	2,95	-
Bivalent temperature	Tbiv	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc		kW	Cycling interval efficiency	COPcyc		-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	55	°C
<b>Power consumption in modes other than active mode</b>				<b>Supplementary heater</b>			
Off mode	POFF	0,010	kW	Rated heat output	Psup	0,0	kW
Thermostat-off mode	PTO	0,010	kW	Type of energy input	electrical		
Standby mode	PSB	0,010	kW				
Crankcase heater mode	PCK	0	kW				
Capacity control	fixed						
sound power level, indoors/outdoors	LWA	81/-	dB	For air-to-water heat pumps: Rated air flow rate, outdoors	-		m³/h
Emissions of nitrogen oxides	NOX	0	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	29100	m³/h
<b>For heat pump combination heater:</b>							
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	0	kWh
<b>Contact details</b>	ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany						
(*) 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.							

<b>Model</b>	<b>SIP 160</b>
Air-to-water heat pump: (yes/no)	no
Brine-to-water heat pump: (yes/no)	yes
Water-to-water heat pump: (yes/no)	no
Low-temperature heat pump: (yes/no)	no
Equipped with supplementary heater: (yes/no)	no
combination heater with: (yes/no)	no
application: (low/medium)	low
climate: (colder/average/warmer)	average

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Rated heat output</b>	Prated	162	kW	<b>Seasonal space heating energy efficiency</b>	$\eta_S$	158,0	%
<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>				<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>			
Tj = -7°C	Pdh	161,6	kW	Tj = -7°C	COPd	4,39	-
Tj = +2°C	Pdh	161,6	kW	Tj = +2°C	COPd	4,65	-
Tj = +7°C	Pdh	161,5	kW	Tj = +7°C	COPd	4,90	-
Tj = +12°C	Pdh	161,5	kW	Tj = +12°C	COPd	5,18	-
Tj = bivalent temperature	Pdh	161,6	kW	Tj = bivalent temperature	COPd	4,35	-
Tj = operation limit temperature	Pdh	161,6	kW	Tj = operation limit temperature	COPd	4,35	-
For air-to-water heat pumps: Tj = +15°C (if TOL < -20°C)	Pdh	161,6	kW	For air-to-water heat pumps: Tj = +15°C (if TOL < -20°C)	COPd	4,35	-
	Tbiv	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	55	°C
<b>Power consumption in modes other than active mode</b>				<b>Supplementary heater</b>			
Off mode	POFF	0,010	kW	Rated heat output	Psup	0,0	kW
Thermostat-off mode	PTO	0,010	kW	Type of energy input	electrical		
Standby mode	PSB	0,010	kW				
Crankcase heater mode	PCK	0	kW				
<b>Other items</b>							
Capacity control	fixed						
sound power level, indoors/outdoors	LWA	81/-	dB	For air-to-water heat pumps: Rated air flow rate, outdoors	-		m³/h
Emissions of nitrogen oxides	NOX	0	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	29100	m³/h
<b>For heat pump combination heater:</b>							
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	0	kWh
<b>Contact details</b>	ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany						
(*) 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.							