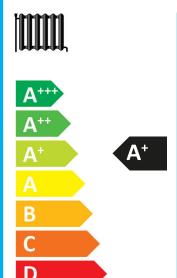
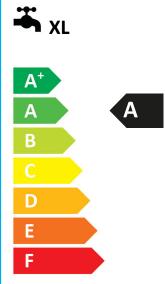


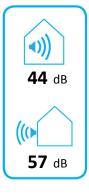
100545HT202

alpha innotec

LW 180A-HT 2











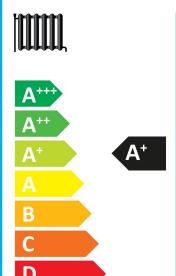
15 kW

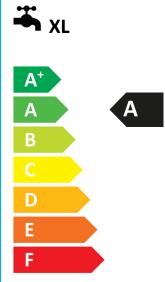


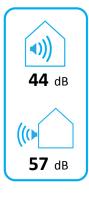
100545HT202

alpha innotec

LW 180A-HT 2











15 kW

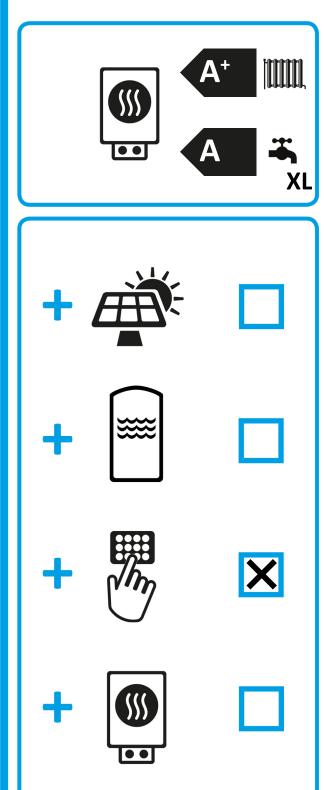


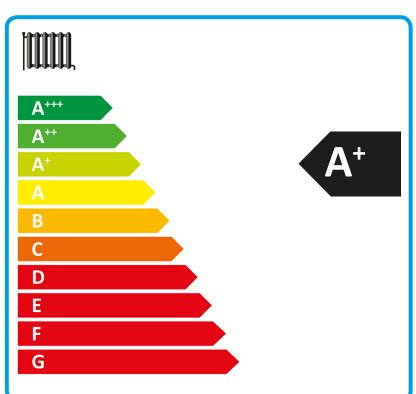
ENERG Y (JA) ehepγuя · ενεργεια (Ε) (ΙΑ)

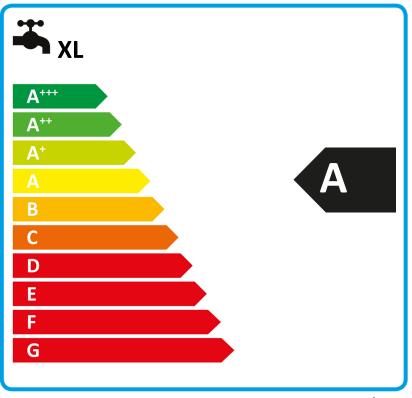
100545HT202

alpha innotec

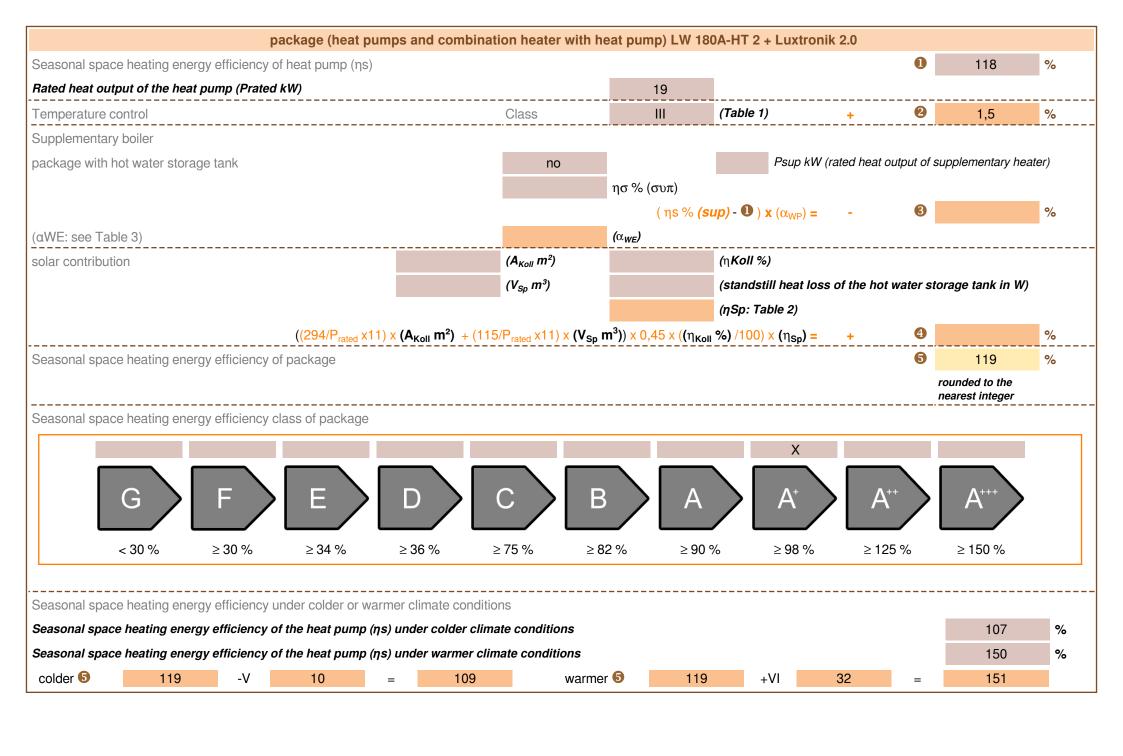
LW 180A-HT 2 + Luxtronik 2.0







2015



manufacturer:	alpha innotec	alpha innotec LW 180A-HT 2			
model:	LW 180A-HT 2				
Information concerning energy efficiency class and rated	heat output:				
load profile water heating	XL				
	average / low	average / medium			
energy efficiency class space heater:	A++	A+	-		
energy efficiency class waterheating		A	-		
rated heat output:	20	19	kW		
annual final energy consumption space heater	10262	12643	kWh		
annual electricity consumption waterheating	1904		kWh		
energy efficiency space heater:	158	118	%		
	88				
energy efficiency waterheating	88		%		
energy efficiency waterheating	88		%		
energy efficiency waterheating sound power level indoors	88	44	% dB		
sound power level indoors		44	1		
sound power level indoors special precautions concerning assembly, installation or	maintenance	'	dB		
sound power level indoors	maintenance	'	dB		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by o	maintenance qualified specialist personnel in c	ompliance with local regulations	dB		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by o	maintenance qualified specialist personnel in c	ompliance with local regulations medium	dB		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by of additional information rated heat output colder climate	maintenance qualified specialist personnel in c	ompliance with local regulations medium	dB s. kW		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by o additional information rated heat output colder climate rated heat output warmer climate	maintenance qualified specialist personnel in c low 17 17	ompliance with local regulations medium 15 16	dB 3. kW kW		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by or additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate	maintenance qualified specialist personnel in c low 17 17 17 12110	ompliance with local regulations medium 15 16 13578	dB s. kW kWh		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by o additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate	maintenance qualified specialist personnel in c low 17 17 12110 4546	ompliance with local regulations medium 15 16	dB s. kW kW kWh		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by or additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate annual energy consumption waterheating colder climate	maintenance qualified specialist personnel in c low 17 17 12110 4546 2068	ompliance with local regulations medium 15 16 13578	dB s. kW kWh kWh		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by o additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate ann. Electricity consumption waterheating colder climate ann. Electricity consumption waterheating warmer climate	maintenance qualified specialist personnel in c low 17 17 12110 4546 2068 1642	medium 15 16 13578 5671	dB kW kWh kWh kWh		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by a additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate ann. Electricity consumption waterheating colder climate ann. Electricity consumption waterheating warmer climate energy effiency space heater colder climate	maintenance qualified specialist personnel in c low 17 17 12110 4546 2068 1642 139	medium 15 16 13578 5671	dB s. kW kWh kWh kWh kWh		
special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by cadditional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate annual energy consumption waterheating colder climate ann. Electricity consumption waterheating warmer climate energy effiency space heater colder climate energy effiency space heater colder climate	maintenance qualified specialist personnel in c low 17 17 12110 4546 2068 1642 139 200	medium 15 16 13578 5671	dB s. kW kWh kWh kWh kWh %		
sound power level indoors special precautions concerning assembly, installation or All instructional work in this manual may only be carried out by or additional information rated heat output colder climate rated heat output warmer climate annual energy consumption space heater colder climate annual energy consumption space heater warmer climate ann. Electricity consumption waterheating colder climate ann. Electricity consumption waterheating warmer climate	maintenance qualified specialist personnel in c low 17 17 12110 4546 2068 1642 139	medium 15 16 13578 5671	dB s. kW kWh kWh kWh kWh		

technical data of the temperature controller							
manufacturer:	alpha innotec						
model:	Luxtronik 2.0						
controller class	III	-					
contribution of the controller to the energy efficiency space hea	ater 1,5	%					

Air-to-water heat pump: (yes/no) Brine-to-water heat pump: (yes/no) Water-to-water heat pump: (yes/no) Low-temperature heat pump: (yes/no) Equipped with supplementary heater: (yes/no) combination heater with: (yes/no) application: (low/medium) climate: (colder/average/warmer) Item Symbol Value Unit Item Symbol Value	Unit %			
Water-to-water heat pump: (yes/no) Low-temperature heat pump: (yes/no) Equipped with supplementary heater: (yes/no) combination heater with: (yes/no) application: (low/medium) climate: (colder/average/warmer) no yes yes application: (low/medium) medium average	%			
Low-temperature heat pump: (yes/no) no Equipped with supplementary heater: (yes/no) yes combination heater with: (yes/no) yes application: (low/medium) medium climate: (colder/average/warmer) average	%			
Equipped with supplementary heater: (yes/no) combination heater with: (yes/no) application: (low/medium) climate: (colder/average/warmer) yes medium average	%			
combination heater with: (yes/no) yes application: (low/medium) medium climate: (colder/average/warmer) average	%			
application: (low/medium) medium climate: (colder/average/warmer) average	%			
climate: (colder/average/warmer) average	%			
	%			
Item Symbol Value Unit Item Symbol Value	%			
Rated heat output Prated 19 kW Seasonal space heating energy efficiency ηS 117,9	door			
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj				
$Tj = -7 ^{\circ}C$ Pdh 12,8 kW $Tj = -7 ^{\circ}C$ COPd 1,94	-			
$Tj = +2 ^{\circ}C$ Pdh 16,9 kW $Tj = +2 ^{\circ}C$ COPd 2,93	-			
$Tj = +7^{\circ}C$ Pdh 10,1 kW $Tj = +7^{\circ}C$ COPd 4,21	-			
Tj = +12°C Pdh 12,9 kW Tj = +12°C COPd 5,39	-			
Tj = bivalent temperature Pdh 14,2 kW Tj = bivalent temperature COPd 2,23	-			
Tj = operation limit temperature Pdh 11,3 kW Tj = operation limit temperature COPd 1,68	-			
For air-to-water heat pumps: Tj Pdh - kW For air-to-water heat pumps: Tj COPd - = -15°C (if TOL < -20°C)	-			
Bivalent temperature T _{biv} -4 °C For air-to-water heat pumps: TOL -10 Operation limit temperature	°C			
Cycling interval capacity for Pcych - kW Cycling interval efficiency COPcyc - heating	-			
Degradation co-efficient (**) Cdh 1,0 - Heating water operating limit WTOL temperature 60	°C			
Power consumption in modes other than active mode Supplementary heater	Supplementary heater			
Off mode P _{OFF} 0,010 kW Rated heat output Psup 7,2	kW			
Thermostat-off mode P _{TO} 0,010 kW Type of energy input electrical				
Standby mode P _{SB} 0,010 kW				
Crankcase heater mode P _{CK} - kW				
Other items				
Capacity control fixed For air-to-water heat pumps: - 5.600 Rated air flow rate, outdoors	m ³ /h			
sound power level, indoors/outdoors Lwa 44 / 57 dB For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	m ³ /h			
Emissions of nitrogen oxides NO _X - mg/kWh				
For heat pump combination heater:				
Declared load profile XL Water heating energy efficiency η _{wh} 88	%			
Daily electricity consumption Q _{elec} 8,668 kWh Daily fuel consumption Qfuel -	kWh			
Contact details 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 heat Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).	ating			
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.				

Model				LW 180A-HT 2				
Air-to-water heat pump: (yes/no)				yes				
Brine-to-water heat pump: (yes/no)				no				
Water-to-water heat pump: (yes/no)				no				
Low-temperature heat pump: (yes/no)				no				
Equipped with supplementary heater: (yes/no)				yes				
combination heater with: (yes/no)				yes				
application: (low/medium)				low				
climate: (colder/average/warmer)				average				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	Prated	20	kW	Seasonal space heating energy efficiency	ηS	158,3	%	
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj			Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature Tj					
Tj = -7°C	Pdh	14,3	kW	Tj = -7°C	COPd	2,94	-	
Tj = +2°C	Pdh	17,5	kW	Tj = +2°C	COPd	3,94	-	
Tj = +7°C	Pdh	10,1	kW	Tj = +7°C	COPd	5,38	-	
Tj = +12°C	Pdh	12,9	kW	Tj = +12°C	COPd	5,96	-	
Tj = bivalent temperature	Pdh	15,4	kW	Tj = bivalent temperature	COPd	3,30	-	
Tj = operation limit temperature	Pdh	13,2	kW	Tj = operation limit temperature	COPd	2,65	-	
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}	-4	°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	60	°C	
Power consumption in modes	other tha	n active mod	e	Supplementary heater				
Off mode	P _{OFF}	0,010	kW	Rated heat output	Psup	6,9	kW	
Thermostat-off mode	P _{TO}	0,010	kW	Type of energy input		electrical		
Standby mode	P _{SB}	0,010	kW					
Crankcase heater mode	P _{CK}	-	kW					
Other items								
Capacity control	fixed			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5.600	m ³ /h	
sound power level, indoors/outdoors	L _{WA}	44 / 57	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h	
Emissions of nitrogen oxides	NO _X	-	mg/kWh					
For heat pump combination h	eater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%	
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Qfuel	-	kWh	
Contact details		land GmbH Ir	ndustriestr. 3	95359 Kasendorf Germany	-	-	-	
				the rated heat output Prated is equ equal to the supplementary capac			eating	
(**) If Cdh is not determined by m	neasuremen	t then the defa	ault degrada	tion coefficient is Cdh = 0,9.				