

**Information requirements  
(air-to-air air conditioners)**

Model(s): AST-48BI							
Outdoor side heat exchanger of air conditioner	air						
Indoor side heat exchanger of air conditioner	air						
Type	compressor driven vapour compression						
If applicable: driver of compressor	electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	12.5	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	221.0	%
Declared cooling capacity for part load at given outdoor temperatures $T_j$ and indoor 27°/19 °C (dry/wet bulb)				Declared energy efficiency ratio for part load at given outdoor temperatures $T_j$			
$T_j = +35\text{ °C}$	$P_{dc}$	12.53	kW	$T_j = +35\text{ °C}$	$EER_d$	2.85	-
$T_j = +30\text{ °C}$	$P_{dc}$	8.81	kW	$T_j = +30\text{ °C}$	$EER_d$	4.14	-
$T_j = +25\text{ °C}$	$P_{dc}$	5.87	kW	$T_j = +25\text{ °C}$	$EER_d$	6.37	-
$T_j = +20\text{ °C}$	$P_{dc}$	3.83	kW	$T_j = +20\text{ °C}$	$EER_d$	10.73	-
Degradation co-efficient for air conditioners(*)	$C_{dc}$	0.25	—				-
Power consumption in modes other than 'active mode'							
Off mode	$P_{off}$	0.010	kW	Crankcase heater mode	$P_{CK}$	0.000	kW
Thermostat-off mode	$P_{TO}$	0.010	kW	Standby mode	$P_{SB}$	0.010	kW
Other items							
Capacity control	variable			For air-to-air air conditioner: air flow rate, outdoor measured	—	5900	$m^3/h$
Sound power level, indoor/outdoor	$L_{WA}$	66/74	dB				
If engine driven: Emissions of nitrogen oxides	$NO_x(**)$	/	mg/kWh fuel input GCV				
GWP of the refrigerant	675		kg CO <sub>2</sub> eq (100 years)				
Contact details: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070				Name of manufacturer: GREE ELECTRIC APPLIANCES,INC. OF ZHUHAI			
(*) If $C_{dc}$ is not determined by measurement then the default degradation coefficient air conditioners shall be 0,25. (**) From 26 September 2018. Where information relates to multi-split air conditioners, the test result and performance data may be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.							

**Information requirements  
(heat pump)**

Model(s): AST-48BI							
Outdoor side heat exchanger of heat pump	air						
Indoor side heat exchanger of heat pump	air						
Indication if the heater is equipped with a supplementary heater	no						
If applicable: driver of compressor	electric motor						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heating capacity	$P_{rated,h}$	13.5	kW	Seasonal space heating energy efficiency	$\eta_{s,h}$	145.0	%
Declared heating capacity for part load at indoor temperature 20 °C and outdoor temperature $T_j$				Declared coefficient of performance for part load at given outdoor temperatures $T_j$			
$T_j = -7\text{ °C}$	$P_{dh}$	8.11	kW	$T_j = -7\text{ °C}$	$COP_d$	2.51	-
$T_j = +2\text{ °C}$	$P_{dh}$	4.82	kW	$T_j = +2\text{ °C}$	$COP_d$	3.61	-
$T_j = +7\text{ °C}$	$P_{dh}$	3.15	kW	$T_j = +7\text{ °C}$	$COP_d$	4.73	-
$T_j = +12\text{ °C}$	$P_{dh}$	2.77	kW	$T_j = +12\text{ °C}$	$COP_d$	5.75	-
$T_{biv}$ = bivalent temperature	$P_{dh}$	8.11	kW	$T_{biv}$ = bivalent temperature	$COP_d$	2.51	-
$T_{ol}$ = operation limit	$P_{dh}$	7.48	kW	$T_{ol}$ = operation limit	$COP_d$	2.34	-
$T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	$P_{dh}$	NA	kW	$T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	$COP_d$	NA	-
Bivalent temperature	$T_{biv}$	-7	°C	Operation limit temperature	$T_{ol}$	-10	°C
Degradation co-efficient heat pumps(**)	$C_{dh}$	0.25	—				
Power consumption in modes other than 'active mode'				Supplementary heater			
Off mode	$P_{off}$	0.010	kW	Back-up heating capacity (*)	$e_{bu}$	1.52	kW
Thermostat-off mode	$P_{TO}$	0.016	kW	Type of energy input	Electric		
Crankcase heater mode	$P_{CK}$	0.000	kW	Standby mode	$P_{SB}$	0.010	kW
Other items							
Capacity control	variable			For air-to-air air conditioner: air flow rate, outdoor measured	—	5900	$m^3/h$
Sound power level, indoor/outdoor measured	$L_{WA}$	66/74	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(***)$	/	mg/kWh input GCV	Rated brine or water flow rate, outdoor side heat exchanger	—	—	$m^3/h$
GWP of the refrigerant	675		kg CO <sub>2</sub> eq (100 years)				
Contact details: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070				Name of manufacturer: GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI			
(*) (**) If $C_{dh}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25. (***) From 26 September 2018. Where information relates to multi-split heat pumps, the test result and performance data may be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.							



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