

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

Model(s):AST-48BI2/I、AST-48BI2/O							
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	$P_{rated,c}$	12.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	227.0	%
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 $T_j$			
$T_j = +35\text{ °C}$	$P_{dc}$	12.30	kW	$T_j = +35\text{ °C}$	$EER_d$	2.86	-
$T_j = +30\text{ °C}$	$P_{dc}$	8.91	kW	$T_j = +30\text{ °C}$	$EER_d$	4.27	-
$T_j = +25\text{ °C}$	$P_{dc}$	5.73	kW	$T_j = +25\text{ °C}$	$EER_d$	6.42	-
$T_j = +20\text{ °C}$	$P_{dc}$	3.97	kW	$T_j = +20\text{ °C}$	$EER_d$	10.59	-
Degradation co-efficient for air conditioners(*)	$C_{dc}$	0.25	—				-
Power consumption in modes other than 'active mode'							
Off mode	$P_{OFF}$	0.003	kW	Crankcase heater mode	$P_{CK}$	0.000	kW
Thermostat-off mode	$P_{TO}$	0.009	kW	Standby mode	$P_{SB}$	0.003	kW
Other items							
Capacity control	variable			For air-to-air air conditioner: air flow rate, outdoor measured	—	4000	$m^3/h$
Sound power level, indoor/outdoor	$L_{WA}$	64/73	dB				
If engine driven: Emissions of nitrogen oxides	NOX(**)	/	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			
<p>(*) If <math>C_{dc}</math> 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.</p>							

**Information requirements  
(heat pump)**

Model(s):AST-48BI2/I、AST-48BI2/O							
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	$P_{rated,h}$	12.6	kW	Seasonal space heating energy efficiency	$\eta_{s,h}$	147.0	%
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 $T_j$			
$T_j = -7\text{ °C}$	$P_{dh}$	8.10	kW	$T_j = -7\text{ °C}$	$COP_d$	2.53	-
$T_j = +2\text{ °C}$	$P_{dh}$	4.70	kW	$T_j = +2\text{ °C}$	$COP_d$	3.57	-
$T_j = +7\text{ °C}$	$P_{dh}$	3.17	kW	$T_j = +7\text{ °C}$	$COP_d$	4.93	-
$T_j = +12\text{ °C}$	$P_{dh}$	2.90	kW	$T_j = +12\text{ °C}$	$COP_d$	6.22	-
$T_{biv}$ = bivalent temperature	$P_{dh}$	8.10	kW	$T_{biv}$ = bivalent temperature	$COP_d$	2.53	-
$T_{OL}$ = operation limit	$P_{dh}$	7.74	kW	$T_{OL}$ = operation limit	$COP_d$	2.12	-
$T_j = -15\text{ °C}$ (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	$P_{OFF}$	0.002	kW	Back-up heating capacity (*)	elbu	1.26	kW
Thermostat-off mode	$P_{TO}$	0.017	kW	Type of energy input	Electric		
Crankcase heater mode	$P_{CK}$	0.000	kW	Standby mode	$P_{SB}$	0.002	kW
Other items							
Capacity control	variable			For air-to-air air conditioner: air flow rate, outdoor measured	—	4000	$m^3/h$
Sound power level, indoor/outdoor measured	$L_{WA}$	64/73	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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