Test Report No.:	NTRF20180212		
Applicant Name:	**AS Wilfa** Industriveien 25, 1481 Hagan, Norway		
Test item:	Split Air Conditioner		
Identification:	Svalbard Extreme	*Serial No.:*	Engineering sample
Receipt No.:	/	*Date of receipt:*	2018.07.10
Testing location:	**Gree Electric Appliances Inc. of Zhuhai** West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070		
Test specification:	Commission Regulation (EU) No 206/2012 Commission Delegated Regulation (EU) No 626/2011 EN 14825:2016 EN 14511-2,3:2013 EN 12102-1:2017		
Test Result:	*The test items passed the test specification(s).*		
Testing Laboratory:	Testing Center of Gree Electric Appliances Inc. of Zhuhai		

tested by:				*reviewed by:*			
	2018-7-20	Huang Jisheng			2018-7-20	Lu Zhibin	
	Date	*Name/Position*	*Signature*		*Date*	*Name/Position*	*Signature*

Other Aspects:

Abbreviations: ***P(ass) = passed***
F(ail) = failed
N/A = not applicable
N/T =not tested

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

Summary of testing

1. The appliance was tested according to EN 14511.
2. The SEER and SCOP were calculated according to EN14825.
3. All the tests were performedon the model Svalbard Extreme as representive
4. The samples are engineering samples without serial numbers.

Test item particulars..... :	
Class of temperature	T1
Type ..... :	Split Air Conditioner
Degree of protection	Indoor unit:IPX0 Outdoor unit:IPX4
Supply Connection..... :	Type Y attachment
Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement ..... :	P(Pass)
- test object does not meet the requirement ..... :	F(Fail)
Testing..... :	
Date of receipt of test item..... :	2018.07.10
Date (s) of performance of tests..... :	2018.07.15-2018.07.20

General remarks

- This appliance is split type air conditioner, which consist of one outdoor unit and one indoor unit.
- The indoor unit is a wall mounted type air conditioner, which is usually not accessible (only for maintenance purpose). It will be mounted 2,5 meters above the floor.
- Cooling and heating modes are applied by reverse cycle method. In the heating mode, defrost operation may be applied.
- The indoor unit is equipped with an infrared wireless battery powered remote control unit.

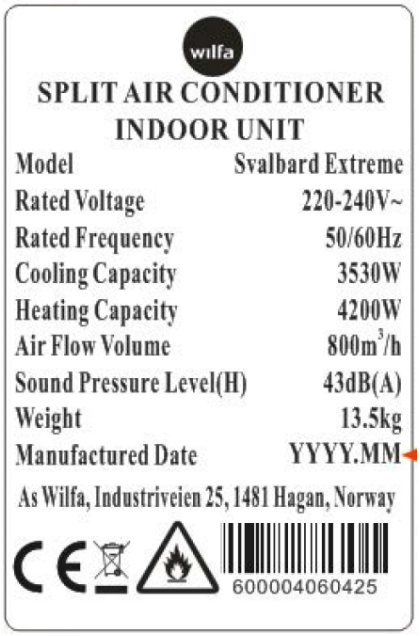
Model list:

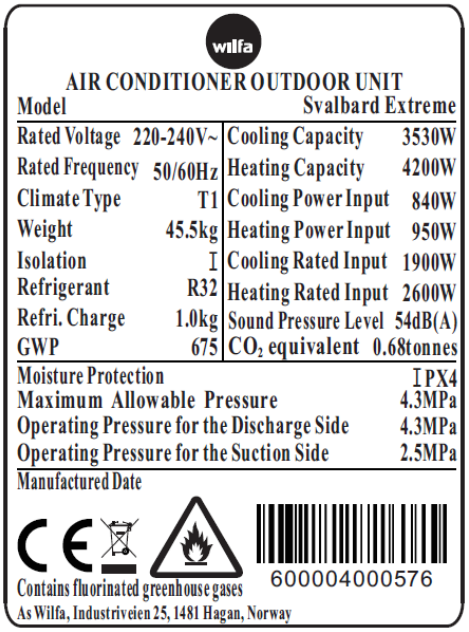
Model	Compressor model	Indoor fan motor	Outdoor fan motor
Svalbard Extreme	QXFT-B123zE170B	FN60B-ZL	FW30J-ZL

Rating labels and marking:
Match table:

Whole model	Indoor unit	Outdoor unit
Svalbard Extreme	Svalbard Extreme/I	Svalbard Extreme/O

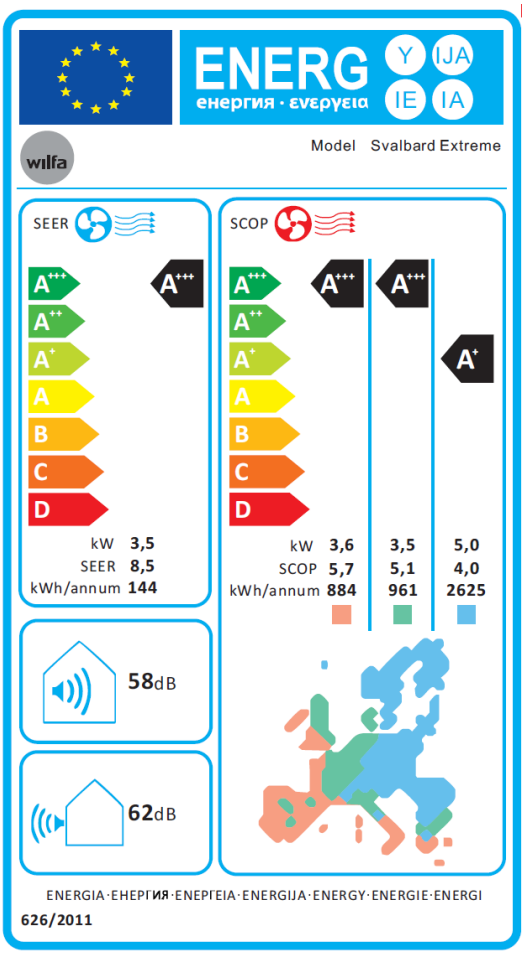
The artwork below may be only a draft.
The labels of other **Svalbard Extreme** are indetical to the representive model **Svalbard Extreme** as below except for the model name.





Rating labels and marking:

Energy lablling



NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825			
Clause	Requirement - Test	Result - Remark	Verdict

Test result of part load according to EN 14825:

Calculation of SEER in cooling mode:

Full load (Pdesignc): 3500 W	**Tdesignc: 35℃**	**Tested Voltage: 230V**	**Frequency: 50Hz**		
Test item	Indoor DB/WB(℃)	Outdoor DB/WB(℃)	Ptest（W）	Tested EER	Cd
A	27/19	35/-	3536	5.06	0,25
B		30/-	2562	7.15	0,25
C		25/-	1624	9.89	0,25
D		20/-	886	15.26	0,25
Psb= Poff =4.573 W; Pck= 0 W; Pto=3.493 W, Q_{HE}= 142 kWh/a					
Test SEER			8,603		
Declared SEER			8,5		
Test SEER≥Declared SEER			Pass		
The calculation method of SEER acoording to the clause 6 of EN14825:2016					
According table 1 of NO 626/2011, the result efficency classes: A+++					

Calculation of SCOP in heating mode:

Full load (Pdesignh): 3500W	Tdesignh: -10℃	Climate: Average ;			
Tbivalent: -7℃; TOL: -10℃	Tested Voltage: 230V	Frequency: 50Hz			
Test item	Indoor DB(℃)	Outdoor DB/WB(℃)	Ptest(w)	Tested COP	Cd
A	20/-	-7/-8	3106	3.33	0,25
B		2/1	1940	5.28	0,25
C		7/6	1259	6.12	0,25
D		12/11	870	6.49	0,25
E		TOL	4019	2.59	0,25
F		Tbivalent	3106	3.33	0.25
Psb= Poff =4.573 W; Pck= 0 W; Pto=7.650 W, Q_{HE}= 961 kWh/a					
SCOP			5.101		
Declared SCOP			5.1		
SCOP≥Declared SCOP			Pass		
The calculation method of SEER acoording to the clause 7 of EN14825:2016					
According table 1 of NO 626/2011, the result efficency classes: A+++					

NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825			
Clause	Requirement - Test	Result - Remark	Verdict

Calculation of SCOP in heating mode:

Full load (Pdesignh): 5000W; Tdesignh: -22℃; Climate: Colder ;

Tbivalent: -15℃; TOL: -30℃ Tested Voltage: 230V Frequency: 50Hz

Test item	Indoor DB(℃)	Outdoor DB/WB(℃)	Ptest(w)	Tested COP	Cd
A	20/-	-7/-8	3106	3.33	0,25
B		2/1	1940	5.28	0,25
C		7/6	1259	6.12	0,25
D		12/11	870	6.49	0,25
E		-22/-	3660	2.13	0,25
F		Tbivalent	4203	2.27	0,25
G		-15/-	4203	2.27	0,25

Psb= Poff =4.573 W; Pck= 0 W; Pto=7.650 W, Q_{HE}= 2554 kWh/a

SCOP	4.111
Declared SCOP	4.0
SCOP≥Declared SCOP	Pass

The calculation method of SEER acoording to the clause 7 of EN14825:2016

According table 1 of NO 626/2011, the result efficency classes: A+

Calculation of SCOP in heating mode:

Full load (Pdesignh): 3600W Tdesignh: 2℃ Climate:Warmer ;

Tbivalent: 2℃; TOL: 2℃ Tested Voltage: 230V Frequency: 50Hz

Test item	Indoor DB(℃)	Outdoor DB/WB(℃)	Ptest(w)	Tested COP	Cd
A	20/-	/	/	/	0,25
B		2/1	3760	3.16	0,25
C		7/6	2387	5.56	0,25
D		12/11	870	6.49	0,25
E		TOL	3760	3.16	0,25
F		Tbivalent	3760	3.16	0,25

Psb= Poff =4.573 W; Pck= 0 W; Pto=7.650 W, Q_{HE}= 880 kWh/a

SCOP	5.730
Declared SCOP	5.7
SCOP≥Declared SCOP	Pass

The calculation method of SEER acoording to the clause 7 of EN14825:2016

According table 1 of NO 626/2011, the result efficency classes: A+++

NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825			
Clause	Requirement - Test	Result - Remark	Verdict

Appendix I: information according to clause 3 of NO 206/2012 ANNEX Ⅰ, for air conditioners，except single duct and double duct air conditioners

Function (indicate if present)				Only for heating mode, if applicable			
Cooling	Y			Average(mandatory)		Y	
Heating	Y			Warmer(if designed)		Y	
				Colder(if designed)		Y	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Design load				Seasonal efficiency			
Cooling	Pdesignc	3.5	kW	Cooling	SEER	8.5	—
Heating/average	Pdesignh	3.5	kW	Heating/average	SCOP/A	5.1	—
Heating/warmer	Pdesignh	3.6	kW	Heating/warmer	SCOP/W	5.7	—
Heating/colder	Pdesignh	5.0	kW	Heating/colder	SCOP/C	4.0	—
Declared capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj				Declared energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature Tj			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Tj=35℃	Pdc	3.53	kW	Tj=35℃	EERd	5.06	—
Tj=30℃	Pdc	2.56	kW	Tj=30℃	EERd	7.15	—
Tj=25℃	Pdc	1.62	kW	Tj=25℃	EERd	9.89	—
Tj=20℃	Pdc	0.88	kW	Tj=20℃	EERd	15.26	—
Declared capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Average season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=-7℃	Pdh	3.10	kW	Tj=-7℃	COPd	3.33	—
Tj=2℃	Pdh	1.94	kW	Tj=2℃	COPd	5.28	—
Tj=7℃	Pdh	1.25	kW	Tj=7℃	COPd	6.12	—
Tj=12℃	Pdh	0.87	kW	Tj=12℃	COPd	6.49	—
Tj=operating limit	Pdh	4.01	kW	Tj=operating limit	COPd	2.59	—
Tj=bivalent temperature	Pdh	3.10	kW	Tj=bivalent temperature	COPd	3.33	—

NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825			
Clause	Requirement - Test	Result - Remark	Verdict

Function (indicate if present)				Only for heating mode, if applicable			
Cooling	Y			Average(mandatory)		Y	
Heating	Y			Warmer(if designed)		Y	
				Colder(if designed)		Y	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Declared capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=2℃	Pdh	3.76	kW	Tj=2℃	COPd	3.16	—
Tj=7℃	Pdh	2.38	kW	Tj=7℃	COPd	5.56	—
Tj=12℃	Pdh	0.87	kW	Tj=12℃	COPd	6.49	—
Tj=operating limit	Pdh	3.76	kW	Tj=operating limit	COPd	3.16	—
Tj=bivalent temperature	Pdh	3.76	kW	Tj=bivalent temperature	COPd	3.16	—
Declared capacity (*) for heating/Colder season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=-7℃	Pdh	3.10	kW	Tj=-7℃	COPd	3.33	—
Tj=2℃	Pdh	1.94	kW	Tj=2℃	COPd	5.28	—
Tj=7℃	Pdh	1.25	kW	Tj=7℃	C-OPd	6.12	—
Tj=12℃	Pdh	0.87	kW	Tj=12℃	COPd	6.49	—
Tj=operating limit	Pdh	3.66	kW	Tj=operating limit	COPd	2.13	—
Tj=bivalent temperature	Pdh	4.20	kW	Tj=bivalent temperature	COPd	2.27	
Tj=-15℃	Pdh	4.20	kW	Tj=-15℃	COPd	2.27	—
Bivalent temperature				Operating limit temperature			
Heating/Average	Tbiv	-7	℃	Heating/Average	Tol	-10	℃
Heating/Warmer	Tbiv	2	℃	Heating/Warmer	Tol	2	℃
Heating/Colder	Tbiv	-15	℃	Heating/Colder	Tol	-30	℃
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc	x,x	kW	for cooling	EERcyc	x,x	—
for heating	Pcych	x,x	kW	for heating	COPcyc	x,x	—
Degradation co-efficient cooling (**)	Cdc	0.25	—	Degradation co-efficient heating (**)	Cdh	0.25	—

NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825			
Clause	Requirement - Test	Result - Remark	Verdict

Function (indicate if present)				Only for heating mode, if applicable			
Cooling	Y			Average(mandatory)		Y	
Heating	Y			Warmer(if designed)		Y	
				Colder(if designed)		Y	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Electric power input in power modes other than 'active mode'				Annual electricity consumption			
Off mode	P_{OFF}	0.004573	kW	Cooling	Q_{CE}	144	kWh/a
Standby mode	P_{SB}	0.004573	kW	Heating/Average	Q_{HE}	961	kWh/a
Thermostat-off mode	P_{TO}	0.00349/0.00765	kW	Heating/Warmer	Q_{HE}	884	kWh/a
Crankcase heater mode	P_{CK}	0	kW	Heating/Colder	Q_{HE}	2625	kWh/a
Capacity control (indicate one of three options)				Other items			
fixed	N			Sound power level (indoor/outdoor)	L_{WA}	58/62	dB(A)
staged	N			Global warming potential	GWP	675	$kgCO_2$ eq.
variable	Y			Rated air flow (indoor/outdoor)	—	(800/2400)	m^3/h
Contact details for obtaining more information	**AS Wilfa** **Industriveien 25, 1481 Hagan, Norway** **Email：support@wilfa.com**						

(*) For staged capacity units, two values divided by a slash ('/') will be declared in each box in the section 'Declared capacity of the unit' and 'declared EER/COP' of the unit.

(**) If default Cd = 0,25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.

For units with capacity control marked 'staged', two values for the highest and lowest, noted 'hi/lo' divided by a slash ('/') will be declared in each box under 'Declared capacity'.

--End of report--