Clause	Requirement – Test	Measuring result – Remark	Verdict
	- Heat pump space heaters, with the exception of low-temperature heat pumps: 110%;	See table 2: Tested η_s(%):144,9%	P
	- Low-temperature heat pumps: 125%.	See table 2a: Tested η_s(%):188,2%	for reference
2	Requirements for water heating energy effiency (η_{wh})		N/A
(a)	(a) From **26 September 2015** the water heating energy efficiency of **combination heaters** shall not fall below the following values: η_{wh}(%):	Load profile: Tested η_{wh}(%): Limited η_{wh}(%):	N/A

Declared load profile	3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
η_{wh}	22%	23%	26%	26%	30%	30%	30%	32%	32%	32%

N/A

(b)	(a) From **26 September 2017** the water heating energy efficiency of **combination heaters** shall not fall below the following values: η_{wh}(%):	Load profile: Tested η_{wh}(%): Limited η_{wh}(%):	N/A

Declared load profile	3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
η_{wh}	32%	32%	32%	32%	36%	37%	38%	60%	64%	64%

N/A

3	Requirements for sound power level (L_{WA})		P
	From **26 September 2015** the sound power level of heat pump space heater and heat pump combination heaters shall not exceed the following values:		P

Rated heat output	$L_{WA,indoors}$	$L_{WA,outdoors}$
≤ 6 kW	≤ 60 dB	≤ 65 dB
>6 kW and ≤ 12 kW	≤ 65 dB	≤ 70 dB
> 12 kW and ≤ 30 kW	≤ 70 dB	≤ 78 dB
> 30 kW and ≤ 70 kW	≤ 80 dB	≤ 88 dB

Rated heat output:
7,0 kW
Tested:
$L_{WA,intdoors}$ (dB): N/A
$L_{WA,outdoors}$ (dB): 64 dB

P

4	Requirements for product information		P
	From **26 September 2015** the following product information on heater shall be provided:		P
(a)	The **instruction manuals** for installers and end-users, **free access websites** of manufacturers, their authorised representatives and importers shall contain the following elements:		P
	- For heat pump space heaters and heat pump combination heaters, the technical parameters set out in Table 2 of clause 5 in Annex II , measured and calculated in accordance with Annex III;		P

Product Service

Table 2	**Calculation for seasonal space heating energy efficiency (Medium temperature application):**					P
Model:	HS10V-QPNNW		Heat pump only ☐, reversible heat pump ☒			
Tdesignh (°C):			-10			
Pdesignh (kW):			7,009			
Tbiv(°C):			-7			
TOL(°C):			-10			
	Part load (kW)	Measured capacity (kW)	COP at measured capacity	Cc	CRu	COP at part load
E	7,009	5,654	2,24	0,00	1,00	2,24
F	6,200	6,200	2,48	0,00	1,00	2,48
A	6,200	6,200	2,48	0,00	1,00	2,48
B	3,774	3,752	3,53	0,00	1,00	3,53
C	2,426	3,072	4,75	0,99	0,79	4,74
D	1,078	3,555	6,62	0,99	0,30	6,47
Low power mode power consumption						
Thermostat-off mode [P_{TO}] W		Standby mode [P_{SB}]	Crankcase heater [P_{CK}]			Off mode [P_{OFF}]
10		10	0			10
$SCOP_{on}$: 3,70			SCOP: 3,70			
Correction F(1) = 3%			Correction F(2) = 5% (for water/brine to water heat pump)			
η_s:			144,9%			
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 1) :			A++			
Supplementary information: CRu: part load divided by capacity.						

Product Service

Table 2a	**Calculation for seasonal space heating energy efficiency (Low temperature application)**					P
Model:	HS10V-QPNNW		Heat pump only ☐, reversible heat pump ☒			
Tdesignh (°C):			-10			
Pdesignh (kW):			6,878			
Tbiv(°C):			-7			
TOL(°C):			-10			
	Part load (kW)	Measured capacity (kW)	COP at measured capacity	Cc	CRu	COP at part load
E	6,878	5,963	2,98	0,00	1,00	2,98
F	6,085	6,085	3,21	0,00	1,00	3,21
A	6,085	6,085	3,21	0,00	1,00	3,21
B	3,704	3,716	4,46	0,00	1,00	4,46
C	2,381	3,199	6,39	0,99	0,74	6,37
D	1,058	3,543	8,40	0,99	0,30	8,21
Low power mode power consumption						
Thermostat-off mode [P_{TO}] W		Standby mode [P_{SB}]		Crankcase heater [P_{CK}]		Off mode [P_{OFF}]
10		10		0		10
$SCOP_{on}$: 4,78				SCOP: 4,78		
Correction F(1) = 3%				Correction F(2) = 5% (for water/brine to water heat pump)		
η_s:				188,2%		
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 1) :				A+++		
Supplementary information: CRu: part load divided by capacity.						

Product Service

Table 4:	**Sound power level measurement**		P
Model :	HS10V-QPNNW		
	Heat source, Air temperature DB/WB ..... (°C):	7,0/6,0	
	Water inlet/outlet temperature .....(°C):	47,0/55,0	
	Voltage ..... (V):	230,1V ~	
	Frequency ..... (Hz):	50 Hz	
	Working condition class.....:	Class A	
	Acoustical environment.....:	Hemi-anechoic room	
	Windshield type.....:	Sponge	
	Measured position amount .....:	14	

Measured quantity	$L_{WA,indoors}$	$L_{WA,outdoors}$	Remark
Sound pressure level $\overline{L_{pf}}$****	--	49	--
Spheres radius r *	--	1,0m	--
Sound power level L_{wA}****	--	64	--

Supplementary information:
Setting of controls: according to user manual.
Duct connection: No duct.
Fan speed: 810 r/min, compressor speed: 90Hz.

Rounding to: *) 1 decimal places; **) 2 decimal places; ***) 3 decimal places; ****) nearest integer