



Table 2		Calculation for seasonal space heating energy efficiency (Medium temperature application):					P
Model:	HS15V-DPNNW		Heat pump only <input type="checkbox"/> , reversible heat pump <input checked="" type="checkbox"/>				
Tdesignh (°C):	-10						
Pdesignh (kW):	12,454						
Tbiv(°C):	-7						
TOL(°C):	-10						
	Part load (kW)	Measured capacity (kW)	COP at measured capacity	Cc	CRu	COP at part load	
E	12,454	9,892	2,37	0,00	1,00	2,37	
F	11,017	11,017	2,67	0,00	1,00	2,67	
A	11,017	11,017	2,67	0,00	1,00	2,67	
B	6,706	6,691	3,89	0,00	1,00	3,89	
C	4,311	5,705	5,36	0,90	0,76	5,19	
D	1,916	6,686	7,03	0,90	0,29	5,63	
Low power mode power consumption							
Thermostat-off mode [P <sub>TO</sub> ] W		Standby mode [P <sub>SB</sub> ]		Crankcase heater [P <sub>CK</sub> ]		Off mode [P <sub>OFF</sub> ]	
0,002		0,002		0		0,002	
SCOP <sub>on</sub> : 3,99							
SCOP: 3,99							
Correction F(1) = 3%							
Correction F(2) = 5% (for water/brine to water heat pump )							
$\eta_s$ : 156,6%							
Seasonal space heating energy efficiency classes: A+++ (According (EU) No 811/2013 Table 1)							
Supplementary information: CRu: part load divided by capacity.							



Table 2a		Calculation for seasonal space heating energy efficiency (Low temperature application)					P
Model:	HS15V-DPNNW		Heat pump only <input type="checkbox"/> , reversible heat pump <input checked="" type="checkbox"/>				
Tdesignh (°C):	-10						
Pdesignh (kW):	12,839						
Tbiv(°C):	-7						
TOL(°C):	-10						
	Part load (kW)	Measured capacity (kW)	COP at measured capacity	Cc	CRu	COP at part load	
E	12,839	10,369	3,12	0,00	1,00	3,12	
F	11,358	11,358	3,40	0,00	1,00	3,40	
A	11,358	11,358	3,40	0,00	1,00	3,40	
B	6,913	7,134	4,82	0,00	0,97	4,82	
C	4,444	5,766	6,79	0,90	0,77	6,59	
D	1,975	6,217	7,96	0,90	0,32	6,55	
Low power mode power consumption							
Thermostat-off mode [P <sub>TO</sub> ] W		Standby mode [P <sub>SB</sub> ]		Crankcase heater [P <sub>CK</sub> ]		Off mode [P <sub>OFF</sub> ]	
0.002		0.002		0		0.002	
SCOP <sub>on</sub> : 4,98							
SCOP: 4,98							
Correction F(1) = 3%							
Correction F(2) = 5% (for water/brine to water heat pump )							
$\eta_s$ : 196,2%							
Seasonal space heating energy efficiency classes: A+++ (According to EU No 811/2013 Table 2)							
Supplementary information: CRu: part load divided by capacity.							



Table 4: Sound power level measurement		P	
Model :	HS15V-DPNNW		
Heat source, Air temperature DB/WB ..... (°C):	7,0/6,0		
Water inlet/outlet temperature .....(°C):	47,0/54,9		
Voltage ..... (V):	400,1V 3N ~		
Frequency ..... (Hz):	50 Hz		
Working condition class.....:	Class A		
Acoustical environment.....:	Hemi-anechoic room		
Windshield type.....:	Sponge		
Measured position amount .....	14		
Measured quantity	LWA,indoors	LWA,outdoors	Remark
Sound pressure level $\bar{L}_{pf}$ ****	--	43	--
Spheres radius r *	--	1,0m	--
Sound power level $L_{WA}$ ****	--	58	--
Supplementary information: Setting of controls: according to user manual. Duct connection: No duct. Fan speed: 650 r/min, compressor speed: 65Hz.  Rounding to: *) 1 decimal places; **) 2 decimal places; ***) 3 decimal places; ****) nearest integer			