

Modell	SPH-W0360-T1R00-011H (R-515B		
Air-to-water heat pump:	No		
Water-to-water heat pump:	Yes		
Brine-to-water heat pump:	No		
Low-temperature heat pump:	No		
Equipped with a supplementary heater:	No		
Heat pump combination heater:	No		

Parameters are declared for applications with:	low-temperature (35°C)
	average climate

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Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	272,43	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outd	oor temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	241	kW
Tj = +2°C	P <sub>dh</sub>	146	kW
Tj = +7°C	P <sub>dh</sub>	94	kW
Tj = +12°C	P <sub>dh</sub>	78	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	272	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	272	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	4,23	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	94	dB(A)
Annual energy consumption	QHe	88.918	kWh
Rated brine or water flow rate, evaporator		64,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	245,15	%
Declared coefficient of performance or primary energy ratio for part load at	indoor temperature 20 °C and outdo	or temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	5,75	-
Tj = +2°C	COP <sub>d</sub>	6,73	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	6,37	-
Tj = +12°C	COP <sub>d</sub>	6,59	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,30	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,30	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

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Modell	SPH-W0720-T2R00-033H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameter and declared for any live time with	(0500)

Parameters are declared for applications with:	low-temperature (35°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	552,70	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outo	loor temperatu	ıre Tj
Tj = -7°C	$P_{dh}$	489	kW
$Tj = +2^{\circ}C$	$P_{dh}$	298	kW
Tj = +7°C	$P_{dh}$	193	kW
Tj = +12°C	$P_{dh}$	86	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	553	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	553	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	8,15	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	L <sub>WA</sub>	94	dB(A)
Annual energy consumption	QHe	181.253	kWh
Rated brine or water flow rate, evaporator		130,1	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindar	u		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ης	243,95	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	5,70	-
Tj = +2°C	COP <sub>d</sub>	6,79	-
Tj = +7°C	COP <sub>d</sub>	6,48	-
Tj = +12°C	COP <sub>d</sub>	5,32	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,28	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,28	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

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Modell	SPH-W1080-T3R00-044H (R-515	
Air-to-water heat pump:	No	
Water-to-water heat pump:	Yes	
Brine-to-water heat pump:	No	
Low-temperature heat pump:	No	
Equipped with a supplementary heater:	No	
Heat pump combination heater:	No	
Parameters are declared for applications with:	medium-temperature (55°C)	
	average climate	

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Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	771.79	kW
Declared capacity for heating for part load at indoor temperature 20		door temperatu	ıre Ti
Tj = -7°C	P <sub>dh</sub>	683	kW
Tj = +2°C	P <sub>dh</sub>	417	kW
Tj = +7°C	P <sub>dh</sub>	268	kW
Tj = +12°C	P <sub>dh</sub>	120	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	772	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	772	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	10,46	kW
Standby mode	$P_{SB}$	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	97	dB(A)
Annual energy consumption	QHe	244.471	kWh
Rated brine or water flow rate, evaporator		2,49	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	ı		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	252,84	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdo	oor temperatur	e Tj
Tj = -7°C	COP <sub>d</sub>	5,88	-
Tj = +2°C	COP <sub>d</sub>	6,87	-
Tj = +7°C	COP <sub>d</sub>	6,91	-
Tj = +12°C	COP <sub>d</sub>	5,67	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,53	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,53	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1440-T4R00-066H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

_	average climate		
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1105,57	kW
Declared capacity for heating for part load at indoor temperature 20		loor temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	978	kW
Tj = +2°C	P <sub>dh</sub>	596	kW
Tj = +7°C	P <sub>dh</sub>	383	kW
Tj = +12°C	P <sub>dh</sub>	171	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1106	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1106	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	9,07	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	97	dB(A)
Annual energy consumption	QHe	323.084	kWh
Rated brine or water flow rate, evaporator		2,11	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	ı		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ης	274,74	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	5,98	-
Tj = +2°C	COP <sub>d</sub>	7,35	-
Tj = +7°C	COP <sub>d</sub>	7,65	-
Tj = +12°C	COP <sub>d</sub>	6,76	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,46	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,46	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1800-T5R00-066H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

<u> </u>	average climate		
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1325,71	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outo	door temperatu	ıre Tj
Tj = -7°C	$P_{dh}$	1173	kW
$Tj = +2^{\circ}C$	$P_{dh}$	714	kW
$Tj = +7^{\circ}C$	$P_{dh}$	460	kW
Tj = +12°C	$P_{dh}$	205	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	1326	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1326	kW
Bivalent temperature	$T_biv$	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	13,05	kW
Standby mode	$P_{SB}$	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	97	dB(A)
Annual energy consumption	QHe	398.963	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	266,55	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outde	oor temperatui	re Tj
Tj = -7°C	COP <sub>d</sub>	5,98	-
Tj = +2°C	COP <sub>d</sub>	7,16	-
Tj = +7°C	COP <sub>d</sub>	7,31	-
Tj = +12°C	COP <sub>d</sub>	6,46	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,54	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,54	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2160-T6R00-076H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	low-temperature (35°C)
	average climate

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Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1549,84	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outo	loor temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	1371	kW
Tj = +2°C	P <sub>dh</sub>	835	kW
Tj = +7°C	P <sub>dh</sub>	537	kW
Tj = +12°C	P <sub>dh</sub>	239	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1550	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1550	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	16,98	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	452.680	kWh
Rated brine or water flow rate, evaporator		368,8	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	274,88	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatui	re Tj
Tj = -7°C	COP <sub>d</sub>	6,03	-
Tj = +2°C	COP <sub>d</sub>	7,65	-
Tj = +7°C	COP <sub>d</sub>	7,37	-
Tj = +12°C	COP <sub>d</sub>	6,21	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,61	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,61	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W0360-T1R00-011H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
	(0500)

Parameters are declared for applications with:	low-temperature (35°C)
	average climate

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Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	269,39	kW
Declared capacity for heating for part load at indoor temperature 20		loor temperati	ıre Tj
Tj = -7°C	$P_{dh}$	238	kW
Tj = +2°C	$P_{dh}$	144	kW
Tj = +7°C	P <sub>dh</sub>	93	kW
Tj = +12°C	P <sub>dh</sub>	78	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	269	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	269	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	4,08	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	94	dB(A)
Annual energy consumption	QHe	86.212	kWh
Rated brine or water flow rate, evaporator		64,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Linda	u		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	250,19	%
Declared coefficient of performance or primary energy ratio for part load at in	ndoor temperature 20 °C and outdo	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	6,01	-
$Tj = +2^{\circ}C$	COP <sub>d</sub>	6,89	-
Tj = +7°C	COP <sub>d</sub>	6,38	-
Tj = +12°C	COP <sub>d</sub>	6,68	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,60	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,60	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

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Modell	SPH-W0720-T2R00-033H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	low-temperature (35°C)
	average climate

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Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	559,67	kW
Declared capacity for heating for part load at indoor temperature 20		loor temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	495	kW
Tj = +2°C	P <sub>dh</sub>	302	kW
Tj = +7°C	P <sub>dh</sub>	194	kW
Tj = +12°C	P <sub>dh</sub>	86	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	560	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	560	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	7,83	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	94	dB(A)
Annual energy consumption	QHe	180.891	kWh
Rated brine or water flow rate, evaporator		132,9	m <sup>3</sup> /h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ης	247,64	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	5,90	-
Tj = +2°C	COP <sub>d</sub>	6,92	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	6,44	-
Tj = +12°C	COP <sub>d</sub>	5,42	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,49	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,49	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

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Modell	SPH-W1080-T3R00-044H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	768,78	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outo	door temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	680	kW
Tj = +2°C	P <sub>dh</sub>	415	kW
Tj = +7°C	P <sub>dh</sub>	267	kW
Tj = +12°C	P <sub>dh</sub>	119	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	769	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	769	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	10,14	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	239.199	kWh
Rated brine or water flow rate, evaporator		2,5	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Symbol	Value	Unit
ηs	257,56	%
e 20 °C and outde	oor temperatur	e Tj
COP <sub>d</sub>	6,11	-
COP <sub>d</sub>	6,94	-
COP <sub>d</sub>	7,01	-
COP <sub>d</sub>	5,82	-
COP <sub>d</sub>	5,75	-
COP <sub>d</sub>	5,75	-
WTOL	65	°C
Psup	0	W
	-	
	ηs e 20 °C and outde COP <sub>d</sub>	η <sub>S</sub> 257,56           e 20 °C and outdoor temperature           COP <sub>d</sub> 6,11           COP <sub>d</sub> 6,94           COP <sub>d</sub> 7,01           COP <sub>d</sub> 5,82           COP <sub>d</sub> 5,75           COP <sub>d</sub> 5,75           WTOL         65



Modell	SPH-W1440-T4R00-066H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	low-temperature (35°C)
	average climate

_			
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1125,59	kW
Declared capacity for heating for part load at indoor temperature 20	°C and out	door temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	996	kW
Tj = +2°C	P <sub>dh</sub>	607	kW
Tj = +7°C	P <sub>dh</sub>	390	kW
Tj = +12°C	P <sub>dh</sub>	174	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1126	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1126	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	=	kW
Thermostat-off mode	P <sub>TO</sub>	9,81	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	324.415	kWh
Rated brine or water flow rate, evaporator		2,17	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	ı		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	278,67	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 2	0 °C and outde	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	6,16	-
$Tj = +2^{\circ}C$	COP <sub>d</sub>	7,46	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	7,75	-
Tj = +12°C	COP <sub>d</sub>	6,66	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,65	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,65	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1800-T5R00-066H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Talameters are accided for applications with:		modium temperature (66 G)			
_	6	average climate	)		
tem	Symbol	Value	Unit		
Rated heat output	P <sub>rated</sub>	1312,71	kW		
Declared capacity for heating for part load at indoor temperature 20	°C and outo	loor temperatu	ıre Tj		
	P <sub>dh</sub>	1162	kW		
Γj = +2°C	P <sub>dh</sub>	707	kW		
Γj = +7°C	$P_{dh}$	455	kW		
	$P_{dh}$	203	kW		
j = -10°C (bivalent temperature)	P <sub>dh</sub>	1313	kW		
j = -10°C (operation limit temperature)	P <sub>dh</sub>	1313	kW		
Bivalent temperature	T <sub>biv</sub>	-10	°C		
Degradation coefficient*	C <sub>dh</sub>	0,90	-		
Power consumption in modes other than active mode					
Off mode	P <sub>off</sub>	-	kW		
hermostat-off mode	P <sub>TO</sub>	13,78	kW		
Standby mode	P <sub>SB</sub>	0,24	kW		
Crankcase heater mode	P <sub>CK</sub>	-	kW		
Sonstige Elemente					
Capacity control		varia	able		
Sound power level	$L_{WA}$	97	dB(A)		
Annual energy consumption	QHe	389.357	kWh		
Rated brine or water flow rate, evaporator		314,5	m³/h		
Contact details					
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau					

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>S</sub>	270,57	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatui	re Tj
Tj = -7°C	COP <sub>d</sub>	6,24	-
Tj = +2°C	COP <sub>d</sub>	7,28	-
Tj = +7°C	COP <sub>d</sub>	7,34	-
Tj = +12°C	COP <sub>d</sub>	6,35	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,81	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,81	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2160-T6R00-076H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

<del>-</del>	average climate		
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1535,83	kW
Declared capacity for heating for part load at indoor temperature 20		loor temperatu	ıre Tj
Tj = -7°C	P <sub>dh</sub>	1359	kW
Tj = +2°C	P <sub>dh</sub>	828	kW
Tj = +7°C	P <sub>dh</sub>	532	kW
Tj = +12°C	P <sub>dh</sub>	237	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1536	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1536	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	16,80	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	456.320	kWh
Rated brine or water flow rate, evaporator		368,8	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	270,09	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdo	oor temperatu	re Tj
Tj = -7°C	COP <sub>d</sub>	6,26	-
Tj = +2°C	COP <sub>d</sub>	7,22	-
Tj = +7°C	COP <sub>d</sub>	7,41	-
Tj = +12°C	COP <sub>d</sub>	6,30	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	5,87	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	5,87	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W0500-T1Q00-022H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	416,34	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outdo	oor temperatui	e Tj
Tj = -7°C	P <sub>dh</sub>	368	kW
Tj = +2°C	P <sub>dh</sub>	224	kW
Tj = +7°C	P <sub>dh</sub>	153	kW
Tj = +12°C	P <sub>dh</sub>	128	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	416	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	416	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	4,73	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		variable	
Sound power level	L <sub>WA</sub>	94	dB(A)
Annual energy consumption	QHe	170.262	kWh
Rated brine or water flow rate, evaporator		91,8	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			·

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	194,04	%
Declared coefficient of performance or primary energy ratio for part load	at indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,44	-
Tj = +2°C	COP <sub>d</sub>	5,13	-
Tj = +7°C	COP <sub>d</sub>	5,32	-
Tj = +12°C	COP <sub>d</sub>	6,09	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,18	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,18	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power on evaporator and condenser side is calculated according to EN14511-3, Annex G

st If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Modell	SPH-W1000-T3Q00-044H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)

rameters are declared for applications with.		(33 0)
average climate		
Symbol	Value	Unit
P <sub>rated</sub>	822,47	kW
°C and outdo	oor temperatur	e Tj
$P_{dh}$	727	kW
P <sub>dh</sub>	443	kW
P <sub>dh</sub>	285	kW
$P_{dh}$	128	kW
P <sub>dh</sub>	822	kW
$P_{dh}$	822	kW
T <sub>biv</sub>	-10	°C
$C_{dh}$	0,90	-
P <sub>off</sub>	-	kW
P <sub>TO</sub>	8,34	kW
P <sub>SB</sub>	0,24	kW
P <sub>CK</sub>	-	kW
	varia	ıble
$L_{WA}$	97	dB(A)
QHe	327.504	kWh
	181,5	m³/h
	Symbol Prated Pand outder Pdh	average climate    Symbol   Value

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	199,50	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,47	-
Tj = +2°C	COP <sub>d</sub>	5,16	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,88	-
Tj = +12°C	COP <sub>d</sub>	5,24	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,21	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,21	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1500-T3Q00-055H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1415,59	kW
Declared capacity for heating for part load at indoor temperature 20 °	°C and outd	oor temperatur	e Tj
$Tj = -7^{\circ}C$	$P_{dh}$	1251	kW
Tj = +2°C	$P_{dh}$	762	kW
Tj = +7°C	$P_{dh}$	490	kW
Tj = +12°C	$P_{dh}$	217	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	1416	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1416	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	$P_{off}$	-	kW
Thermostat-off mode	P <sub>TO</sub>	12,90	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	99	dB(A)
Annual energy consumption	QHe	542.223	kWh
Rated brine or water flow rate, evaporator		309,6	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	207,71	%
Declared coefficient of performance or primary energy ratio for part load at indoor	r temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,42	-
Tj = +2°C	COP <sub>d</sub>	5,42	-
Tj = +7°C	COP <sub>d</sub>	6,05	-
Tj = +12°C	COP <sub>d</sub>	5,81	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,11	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,11	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2000-T4Q00-076H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1674,54	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outd	oor temperatur	e Tj
$Tj = -7^{\circ}C$	$P_{dh}$	1481	kW
Tj = +2°C	$P_{dh}$	903	kW
Tj = +7°C	$P_{dh}$	581	kW
Tj = +12°C	$P_{dh}$	259	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1675	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1675	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	14,47	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	100	dB(A)
Annual energy consumption	QHe	637.911	kWh
Rated brine or water flow rate, evaporator		369,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	208,89	%
Declared coefficient of performance or primary energy ratio for part load at in-	door temperature 20 °C and outdo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,50	-
Tj = +2°C	COP <sub>d</sub>	5,48	-
Tj = +7°C	COP <sub>d</sub>	5,99	-
Tj = +12°C	COP <sub>d</sub>	5,77	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,22	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,22	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2500-T5Q00-087H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with: medium-temperature (55°C) average climate

		., .	
ltem	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	2002,58	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outd	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1772	kW
Tj = +2°C	$P_{dh}$	1081	kW
Tj = +7°C	$P_{dh}$	695	kW
Tj = +12°C	$P_{dh}$	309	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	2003	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	2003	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	16,87	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	101	dB(A)
Annual energy consumption	QHe	760.071	kWh
Rated brine or water flow rate, evaporator		441,7	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	209,69	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,50	-
Tj = +2°C	COP <sub>d</sub>	5,47	-
Tj = +7°C	COP <sub>d</sub>	6,12	-
Tj = +12°C	COP <sub>d</sub>	5,71	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,23	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,23	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W3000-T6Q00-098H (R-134a)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

arameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	2547,75	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	2254	kW
Tj = +2°C	$P_{dh}$	1372	kW
Tj = +7°C	$P_{dh}$	879	kW
Tj = +12°C	$P_{dh}$	389	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	2548	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	2548	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	21,78	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	L <sub>WA</sub>	102	dB(A)
Annual energy consumption	QHe	968.908	kWh
Rated brine or water flow rate, evaporator		560,9	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	I		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	209,26	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,47	-
Tj = +2°C	COP <sub>d</sub>	5,45	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	6,07	-
Tj = +12°C	COP <sub>d</sub>	5,94	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,20	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,20	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W0500-T1Q00-022H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

arameters are declared for applications with:	medium-temperature (55°C)
	average climate

N	0	Walana	11-24
ltem	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	419,34	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outd	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	371	kW
Tj = +2°C	$P_{dh}$	225	kW
Tj = +7°C	$P_{dh}$	154	kW
Tj = +12°C	$P_{dh}$	128	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	419	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	419	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	4,75	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	94	dB(A)
Annual energy consumption	QHe	175.082	kWh
Rated brine or water flow rate, evaporator		91,8	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	189,90	%
Declared coefficient of performance or primary energy ratio for part load at	indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,35	-
Tj = +2°C	COP <sub>d</sub>	5,01	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,23	-
Tj = +12°C	COP <sub>d</sub>	5,94	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,09	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,09	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1000-T3Q00-044H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	828,48	kW
Declared capacity for heating for part load at indoor temperature 20	0 °C and outde	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	732	kW
Tj = +2°C	$P_{dh}$	445	kW
Tj = +7°C	$P_{dh}$	287	kW
Tj = +12°C	$P_{dh}$	129	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	828	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	828	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	8,39	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	337.305	kWh
Rated brine or water flow rate, evaporator		181,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Linda	ıu		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	194,94	%
Declared coefficient of performance or primary energy ratio for part load at ir	door temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,37	-
Tj = +2°C	COP <sub>d</sub>	5,04	-
Tj = +7°C	COP <sub>d</sub>	5,73	-
Tj = +12°C	COP <sub>d</sub>	5,17	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,12	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,12	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1500-T3Q00-055H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	Prated	1425,59	kW
Declared capacity for heating for part load at indoor temperature 20 °C	C and outdo	or temperatur	e Tj
Tj = -7°C	$P_{dh}$	1262	kW
Tj = +2°C	$P_{dh}$	768	kW
Tj = +7°C	$P_{dh}$	492	kW
Tj = +12°C	$P_{dh}$	220	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1426	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1426	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	12,80	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	L <sub>WA</sub>	99	dB(A)
Annual energy consumption	QHe	556.647	kWh
Rated brine or water flow rate, evaporator		309,6	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	203,60	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,31	-
Tj = +2°C	COP <sub>d</sub>	5,31	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,95	-
Tj = +12°C	COP <sub>d</sub>	5,75	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,02	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,02	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2000-T4Q00-076H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1686,55	kW
Declared capacity for heating for part load at indoor temperature 20 °C	C and outdo	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1492	kW
Tj = +2°C	$P_{dh}$	908	kW
Tj = +7°C	$P_{dh}$	585	kW
Tj = +12°C	$P_{dh}$	261	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1687	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1687	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	14,54	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	100	dB(A)
Annual energy consumption	QHe	656.658	kWh
Rated brine or water flow rate, evaporator		369,3	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	204,21	%
Declared coefficient of performance or primary energy ratio for part load at in	door temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,41	-
Tj = +2°C	COP <sub>d</sub>	5,36	-
Tj = +7°C	COP <sub>d</sub>	5,84	-
Tj = +12°C	COP <sub>d</sub>	5,69	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,13	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,13	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2500-T5Q00-087H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

arameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	2016,58	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outd	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1785	kW
Tj = +2°C	$P_{dh}$	1084	kW
Tj = +7°C	$P_{dh}$	696	kW
Tj = +12°C	$P_{dh}$	312	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	2017	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	2017	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	17,12	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	L <sub>WA</sub>	101	dB(A)
Annual energy consumption	QHe	784.337	kWh
Rated brine or water flow rate, evaporator		441,7	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	204,43	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,39	-
Tj = +2°C	COP <sub>d</sub>	5,33	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,97	-
Tj = +12°C	COP <sub>d</sub>	5,61	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,14	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,14	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W3000-T6Q00-098H (R-513A)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	2565,75	kW
Declared capacity for heating for part load at indoor temperature 20 °	°C and outd	oor temperatur	e Tj
$Tj = -7^{\circ}C$	$P_{dh}$	2269	kW
Tj = +2°C	$P_{dh}$	1380	kW
Tj = +7°C	$P_{dh}$	883	kW
Tj = +12°C	$P_{dh}$	391	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	2566	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	2566	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	22,01	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	102	dB(A)
Annual energy consumption	QHe	997.143	kWh
Rated brine or water flow rate, evaporator		560,9	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	204,60	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,38	-
Tj = +2°C	COP <sub>d</sub>	5,33	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,94	-
Tj = +12°C	COP <sub>d</sub>	5,81	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,11	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,11	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



SPH-W0360-T1R00-011H (R-515B)
No
Yes
No
No
No
No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	293,37	kW
Declared capacity for heating for part load at indoor temperature 20 °		or temperature	Tj
Tj = -7°C	$P_{dh}$	259	kW
Tj = +2°C	$P_{dh}$	157	kW
Tj = +7°C	$P_{dh}$	112	kW
Tj = +12°C	$P_{dh}$	91	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	293	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	293	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	$P_{\text{off}}$	-	kW
Thermostat-off mode	P <sub>TO</sub>	3,48	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	94	dB(A)
Annual energy consumption	QHe	121.875	kWh
Rated brine or water flow rate, evaporator		64,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	190,89	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoor	temperature T	j
Tj = -7°C	COP <sub>d</sub>	4,37	-
Tj = +2°C	COP <sub>d</sub>	5,04	-
Tj = +7°C	COP <sub>d</sub>	5,29	-
Tj = +12°C	COP <sub>d</sub>	5,96	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,10	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,10	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



SPH-W0720-T2R00-033H (R-515B	lodell
ump: No	ir-to-water heat pump:
t pump: Yes	Vater-to-water heat pump:
pump: No	rine-to-water heat pump:
eat pump: No	ow-temperature heat pump:
pplementary heater: No	quipped with a supplementary heater:
ation heater: No	leat pump combination heater:
ation heater: No	eat pump combination heater:

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	Prated	607,40	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outde	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	537	kW
Tj = +2°C	$P_{dh}$	326	kW
Tj = +7°C	$P_{dh}$	210	kW
Tj = +12°C	$P_{dh}$	94	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	607	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	607	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	6,44	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	$L_{WA}$	97	dB(A)
Annual energy consumption	QHe	245.258	kWh
Rated brine or water flow rate, evaporator		132,9	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	196,63	%
Declared coefficient of performance or primary energy ratio for part load at in	ndoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,37	-
Tj = +2°C	COP <sub>d</sub>	5,17	-
Tj = +7°C	COP <sub>d</sub>	5,67	-
Tj = +12°C	COP <sub>d</sub>	5,16	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,10	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,10	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1080-T3R00-044H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)

		average climate	,
<del>-</del>	•	a.o.ago omnate	
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	825,47	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	729	kW
$Tj = +2^{\circ}C$	$P_{dh}$	444	kW
$Tj = +7^{\circ}C$	$P_{dh}$	284	kW
Tj = +12°C	$P_{dh}$	125	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	825	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	825	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	$P_{off}$	-	kW
Thermostat-off mode	P <sub>TO</sub>	8,35	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	99	dB(A)
Annual energy consumption	QHe	326.377	kWh
Rated brine or water flow rate, evaporator		181,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	200,97	%
Declared coefficient of performance or primary energy ratio for part load at ir	door temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,40	-
Tj = +2°C	COP <sub>d</sub>	5,27	-
Tj = +7°C	COP <sub>d</sub>	5,76	-
Tj = +12°C	COP <sub>d</sub>	5,52	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,15	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,15	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1440-T4R00-066H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

-,		Unit
P <sub>rated</sub>	1462,46	kW
	oor temperatur	e Tj
$P_{dh}$	1292	kW
$P_{dh}$	787	kW
P <sub>dh</sub>	506	kW
$P_{dh}$	221	kW
P <sub>dh</sub>	1462	kW
P <sub>dh</sub>	1462	kW
T <sub>biv</sub>	-10	°C
C <sub>dh</sub>	0,90	-
P <sub>off</sub>	-	kW
P <sub>TO</sub>	12,40	kW
P <sub>SB</sub>	0,24	kW
P <sub>CK</sub>	-	kW
	varia	ble
L <sub>WA</sub>	100	dB(A)
QHe	565.944	kWh
	314,5	m³/h
	$\begin{array}{c} P_{dh} \\ T_{biv} \\ C_{dh} \\ \end{array}$	Prated         1462,46           C and outdoor temperature         Pdh         1292           Pdh         787         787           Pdh         506         787           Pdh         221         787           Pdh         1462         787           Pdh         1462         788           Pdh         1462         788           Poff         -         788         0,24           PcK         -         24           PcK         -         24           LWA         100         24           QHe         565,944

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	205,51	%
Declared coefficient of performance or primary energy ratio for part load at in	door temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,24	-
Tj = +2°C	COP <sub>d</sub>	5,42	-
Tj = +7°C	COP <sub>d</sub>	6,06	-
Tj = +12°C	COP <sub>d</sub>	5,64	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	3,90	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	3,90	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1440-T4R00-066L (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1462,94	kW
Declared capacity for heating for part load at indoor temperature 20 °C	C and outdo	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1293	kW
Tj = +2°C	$P_{dh}$	788	kW
Tj = +7°C	P <sub>dh</sub>	507	kW
Tj = +12°C	$P_{dh}$	222	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1463	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1463	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	18,23	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	L <sub>WA</sub>	100	dB(A)
Annual energy consumption	QHe	596.669	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	194,58	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,16	-
Tj = +2°C	COP <sub>d</sub>	5,21	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,67	-
Tj = +12°C	COP <sub>d</sub>	4,92	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	3,84	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	3,84	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1800-T5R00-066H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1431,44	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outd	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1265	kW
Tj = +2°C	$P_{dh}$	771	kW
Tj = +7°C	P <sub>dh</sub>	498	kW
Tj = +12°C	P <sub>dh</sub>	221	kW
Tj = -10°C (bivalent temperature)	$P_{dh}$	1431	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1431	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	12,31	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	101	dB(A)
Annual energy consumption	QHe	550.428	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	206,87	%
Declared coefficient of performance or primary energy ratio for part load at ir	ndoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,44	-
Tj = +2°C	COP <sub>d</sub>	5,40	-
Tj = +7°C	COP <sub>d</sub>	6,04	-
Tj = +12°C	COP <sub>d</sub>	5,65	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,17	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,17	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1800-T5R00-066L (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	Prated	1431,93	kW
Declared capacity for heating for part load at indoor temperature 20 °C	C and outdo	or temperatur	e Tj
Tj = -7°C	$P_{dh}$	1266	kW
Tj = +2°C	$P_{dh}$	772	kW
Tj = +7°C	$P_{dh}$	499	kW
Tj = +12°C	$P_{dh}$	222	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1432	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1432	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	17,92	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	101	dB(A)
Annual energy consumption	QHe	579.731	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	196,08	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,36	-
Tj = +2°C	COP <sub>d</sub>	5,20	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,65	-
Tj = +12°C	COP <sub>d</sub>	4,96	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,10	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,10	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2160-T6R00-076H (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

-,		Unit
	, .	kW
C and outde	oor temperatur	e Tj
$P_{dh}$	1487	kW
$P_{dh}$	906	kW
$P_{dh}$	583	kW
$P_{dh}$	259	kW
$P_{dh}$	1681	kW
$P_{dh}$	1681	kW
T <sub>biv</sub>	-10	°C
$C_{dh}$	0,90	-
P <sub>off</sub>	-	kW
P <sub>TO</sub>	14,50	kW
P <sub>SB</sub>	0,24	kW
P <sub>CK</sub>	-	kW
	varia	ble
$L_{WA}$	102	dB(A)
QHe	648.883	kWh
	369,3	m³/h
	$\begin{array}{c} P_{dh} \\ T_{biv} \\ C_{dh} \\ \end{array}$	Prated         1680,54           C and outdoor temperatur           Pdh         1487           Pdh         906           Pdh         583           Pdh         259           Pdh         1681           Pdh         -10           Cdh         0,90           Poff         -           PTO         14,50           PSB         0,24           PCK         -           Variate         LWA           LWA         102           QHe         648.883

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	205,99	%
Declared coefficient of performance or primary energy ratio for part load at in	door temperature 20 °C and outdo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,43	-
Tj = +2°C	COP <sub>d</sub>	5,36	-
Tj = +7°C	COP <sub>d</sub>	5,95	-
Tj = +12°C	COP <sub>d</sub>	5,84	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,18	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,18	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2160-T6R00-076L (R-515B)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1486,94	kW
Declared capacity for heating for part load at indoor temperature 20 °	°C and outd	oor temperatur	e Tj
$Tj = -7^{\circ}C$	$P_{dh}$	1307	kW
Tj = +2°C	$P_{dh}$	803	kW
Tj = +7°C	$P_{dh}$	520	kW
Tj = +12°C	$P_{dh}$	222	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1487	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1487	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	17,21	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	102	dB(A)
Annual energy consumption	QHe	596.604	kWh
Rated brine or water flow rate, evaporator		327,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	197,93	%
Declared coefficient of performance or primary energy ratio for part load at ir	ndoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,37	-
Tj = +2°C	COP <sub>d</sub>	5,25	-
Tj = +7°C	COP <sub>d</sub>	5,70	-
Tj = +12°C	COP <sub>d</sub>	5,04	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,16	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,16	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



SPH-W0360-T1R00-011H (R-1234ze)
No
Yes
No
No
No
No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

_	average climate		
_			
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	297,34	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outde	oor temperatui	e Tj
Tj = -7°C	$P_{dh}$	262	kW
$Tj = +2^{\circ}C$	$P_{dh}$	160	kW
Tj = +7°C	P <sub>dh</sub>	113	kW
Tj = +12°C	P <sub>dh</sub>	91	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	297	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	297	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	3,54	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	94	dB(A)
Annual energy consumption	QHe	122.964	kWh
Rated brine or water flow rate, evaporator		65,5	m³/h
Contact details			
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Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	191,80	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	r temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,44	-
Tj = +2°C	COP <sub>d</sub>	5,06	-
Tj = +7°C	COP <sub>d</sub>	5,30	-
Tj = +12°C	COP <sub>d</sub>	5,93	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,19	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,19	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power on evaporator and condenser side is calculated according to EN14511-3, Annex G

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Modell	SPH-W0720-T2R00-033H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

		average ciimate	
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	602,39	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatui	e Tj
Tj = -7°C	P <sub>dh</sub>	532	kW
Tj = +2°C	P <sub>dh</sub>	324	kW
Tj = +7°C	$P_{dh}$	208	kW
Tj = +12°C	P <sub>dh</sub>	94	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	602	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	602	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	6,44	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	97	dB(A)
Annual energy consumption	QHe	241.566	kWh
Rated brine or water flow rate, evaporator		132,9	m³/h
Contact details			
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<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	198,04	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,46	-
Tj = +2°C	COP <sub>d</sub>	5,14	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,81	-
Tj = +12°C	COP <sub>d</sub>	5,16	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,19	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,19	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1080-T3R00-044H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No
near pump combination nearer.	INO

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	821,47	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outdo	oor temperatur	е Тј
Tj = -7°C	$P_{dh}$	726	kW
Tj = +2°C	P <sub>dh</sub>	441	kW
Tj = +7°C	P <sub>dh</sub>	284	kW
Tj = +12°C	P <sub>dh</sub>	125	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	821	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	821	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	8,35	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	99	dB(A)
Annual energy consumption	QHe	320.178	kWh
Rated brine or water flow rate, evaporator		181,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	ı		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	203,99	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,47	-
Tj = +2°C	COP <sub>d</sub>	5,42	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,73	-
Tj = +12°C	COP <sub>d</sub>	5,52	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,23	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,23	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1440-T4R00-066H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)

_	average climate		
ltem	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1445,46	kW
Declared capacity for heating for part load at indoor temperature 20		or temperatur	e Tj
Tj = -7°C	$P_{dh}$	1278	kW
Tj = +2°C	$P_{dh}$	778	kW
Tj = +7°C	$P_{dh}$	500	kW
Tj = +12°C	$P_{dh}$	221	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1445	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1445	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	12,40	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	100	dB(A)
Annual energy consumption	QHe	552.552	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	208,14	%
Declared coefficient of performance or primary energy ratio for part load at i	ndoor temperature 20 °C and outdo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,38	-
Tj = +2°C	COP <sub>d</sub>	5,46	-
Tj = +7°C	COP <sub>d</sub>	6,12	-
Tj = +12°C	COP <sub>d</sub>	5,66	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,05	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,05	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1440-T4R00-066L (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1445,93	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatur	e Tj
$Tj = -7^{\circ}C$	$P_{dh}$	1279	kW
Tj = +2°C	P <sub>dh</sub>	779	kW
Tj = +7°C	P <sub>dh</sub>	501	kW
Tj = +12°C	P <sub>dh</sub>	222	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1446	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1446	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	18,23	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ıble
Sound power level	$L_{WA}$	100	dB(A)
Annual energy consumption	QHe	582.659	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	197,04	%
Declared coefficient of performance or primary energy ratio for part load at indoor	or temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,29	-
Tj = +2°C	COP <sub>d</sub>	5,25	-
Tj = +7°C	COP <sub>d</sub>	5,73	-
Tj = +12°C	COP <sub>d</sub>	4,93	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	3,98	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	3,98	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W1800-T5R00-066H (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

-			
Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1423,44	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1258	kW
$Tj = +2^{\circ}C$	P <sub>dh</sub>	765	kW
Tj = +7°C	P <sub>dh</sub>	491	kW
Tj = +12°C	P <sub>dh</sub>	216	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1423	kW
Tj = -10°C (operation limit temperature)	P <sub>dh</sub>	1423	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	12,15	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	101	dB(A)
Annual energy consumption	QHe	541.420	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau	ı		

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	209,23	%
Declared coefficient of performance or primary energy ratio for part load a	at indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,50	-
Tj = +2°C	COP <sub>d</sub>	5,46	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	6,12	-
Tj = +12°C	COP <sub>d</sub>	5,63	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,24	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,24	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	

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Modell	SPH-W1800-T5R00-066L (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

arameters are declared for applications with:	medium-temperature (55°C)
	average climate

Item	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1423,93	kW
Declared capacity for heating for part load at indoor temperature 20	°C and outd	oor temperatur	е Тј
Tj = -7°C	$P_{dh}$	1259	kW
Tj = +2°C	$P_{dh}$	766	kW
Tj = +7°C	$P_{dh}$	492	kW
Tj = +12°C	$P_{dh}$	217	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1424	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1424	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	$C_{dh}$	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	17,82	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	ble
Sound power level	$L_{WA}$	101	dB(A)
Annual energy consumption	QHe	570.564	kWh
Rated brine or water flow rate, evaporator		314,5	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	198,20	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,42	-
Tj = +2°C	COP <sub>d</sub>	5,26	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,73	-
Tj = +12°C	COP <sub>d</sub>	4,92	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,17	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,17	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



SPH-W2160-T6R00-076H (R-1234ze)
No
Yes
No
No
No
No

Parameters are declared for applications with:	medium-temperature (55°C)
	average climate

<u> </u>	average climate		
ltem	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1671,54	kW
Declared capacity for heating for part load at indoor temperature 20		oor temperatui	e Tj
Tj = -7°C	P <sub>dh</sub>	1477	kW
Tj = +2°C	P <sub>dh</sub>	901	kW
Tj = +7°C	P <sub>dh</sub>	579	kW
Tj = +12°C	P <sub>dh</sub>	259	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1672	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1672	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	-	kW
Thermostat-off mode	P <sub>TO</sub>	14,50	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		varia	able
Sound power level	L <sub>WA</sub>	102	dB(A)
Annual energy consumption	QHe	634.898	kWh
Rated brine or water flow rate, evaporator		369,3	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	209,53	%
Declared coefficient of performance or primary energy ratio for part load at in	door temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,51	-
Tj = +2°C	COP <sub>d</sub>	5,46	-
Tj = +7°C	COP <sub>d</sub>	6,06	-
Tj = +12°C	COP <sub>d</sub>	5,85	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,25	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,25	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	



Modell	SPH-W2160-T6R00-076L (R-1234ze)
Air-to-water heat pump:	No
Water-to-water heat pump:	Yes
Brine-to-water heat pump:	No
Low-temperature heat pump:	No
Equipped with a supplementary heater:	No
Heat pump combination heater:	No

arameters are declared for applications with:	medium-temperature (55°C)
	average climate

N	0	Walana	11-11
ltem	Symbol	Value	Unit
Rated heat output	P <sub>rated</sub>	1483,94	kW
Declared capacity for heating for part load at indoor temperature 20 °	C and outd	oor temperatur	e Tj
Tj = -7°C	$P_{dh}$	1306	kW
Tj = +2°C	$P_{dh}$	806	kW
Tj = +7°C	P <sub>dh</sub>	520	kW
Tj = +12°C	$P_{dh}$	223	kW
Tj = -10°C (bivalent temperature)	P <sub>dh</sub>	1484	kW
Tj = -10°C (operation limit temperature)	$P_{dh}$	1484	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Degradation coefficient*	C <sub>dh</sub>	0,90	-
Power consumption in modes other than active mode			
Off mode	Poff	-	kW
Thermostat-off mode	P <sub>TO</sub>	17,06	kW
Standby mode	P <sub>SB</sub>	0,24	kW
Crankcase heater mode	P <sub>CK</sub>	-	kW
Sonstige Elemente			
Capacity control		variable	
Sound power level	$L_{WA}$	102	dB(A)
Annual energy consumption	QHe	585.783	kWh
Rated brine or water flow rate, evaporator		327,9	m³/h
Contact details			
ENGIE Refrigeration GmbH Josephine-Hirner-Strasse 1&3 88131 Lindau			

<sup>\*</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

The harmonized standards EN14511 and EN14825 have been used for testing and calculation

Water/Brine pumps are fictive and not included in the delivery. Pump power is according to EN14511-3, Annex G

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	201,31	%
Declared coefficient of performance or primary energy ratio for part load a	t indoor temperature 20 °C and outdoo	or temperature	Tj
Tj = -7°C	COP <sub>d</sub>	4,45	-
Tj = +2°C	COP <sub>d</sub>	5,33	-
$Tj = +7^{\circ}C$	COP <sub>d</sub>	5,82	-
Tj = +12°C	COP <sub>d</sub>	5,09	-
Tj = -10°C (bivalent temperature)	COP <sub>d</sub>	4,20	-
Tj = -10°C (operation limit temperature)	COP <sub>d</sub>	4,20	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	0	W
Type of energy input		-	