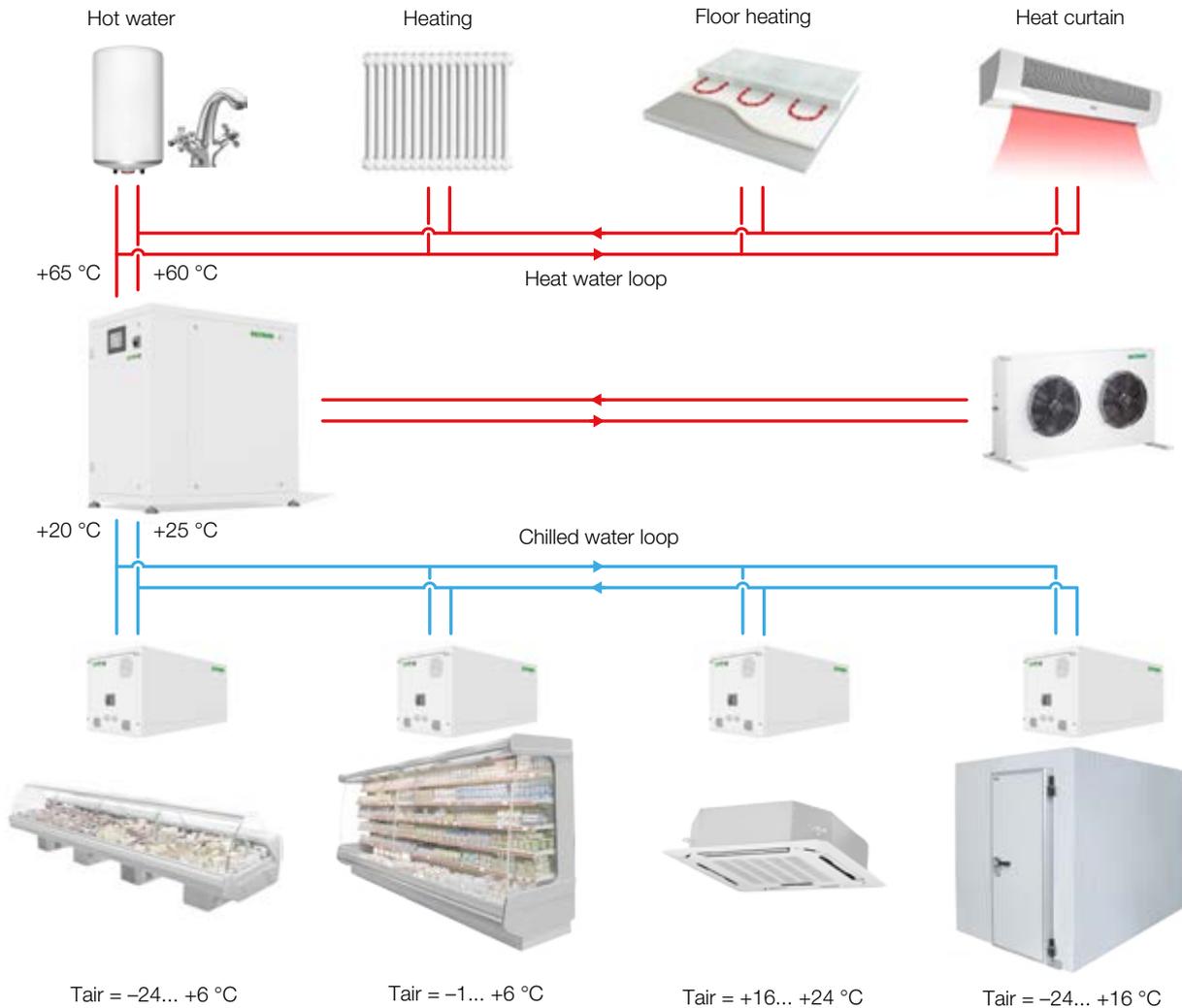




technical catalogue



## OGT is...



✓ *High energy efficiency*

✓ *F-GAS regulation capability*

✓ *Flexible design & Easy installation*

**LCS**  
Low Charge System

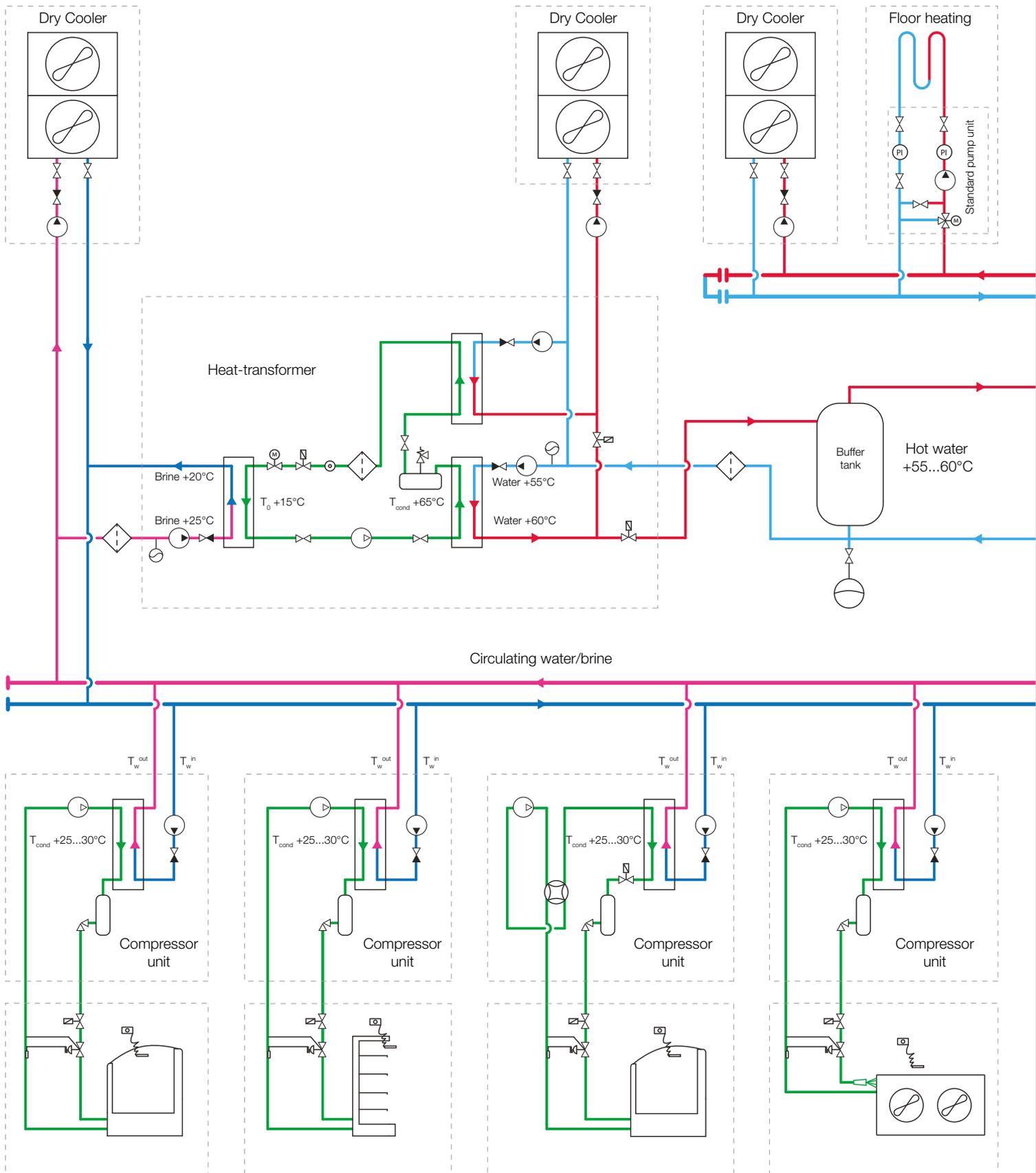
**WLS**  
Water Loop System

**FHRS**  
Full Heat Recovery System

**TEC ≥ 7.5**  
Total Efficiency Coefficient

Comparison criteria	CO <sub>2</sub>	OGT
<b>1. Ecology (refrigerant)</b>		
Compliance with F-gas regulation	++	++
TEWI effect – Total Equivalent Warming Impact	++	++
Natural refrigerants	++	+
Refrigerant charge	-	+
<b>2. Energy efficiency</b>		
COP (Coefficient Of Performance) of refrigeration systems	+	++
TEC (Total Efficiency Coefficient)	+	++
Evaporating temperature	-	+
Heat recovery	+	+
<b>3. Safety</b>		
Working pressure	--	++
Flammability and explosion risk	+	+
Suffocating gas	-	++
Accident risk during commissioning	--	+
Refrigerant leakages	--	+
<b>4. Reliability</b>		
Optimal operation conditions for each cooling cabinet	-	+
Additional safety systems	-	+
<b>5. Investment costs</b>		
Equipment	-	+
Factory assembly (plug in)	-	++
Phased commissioning	-	++
Remodeling	-	++
Installation and service	-	+
<b>6. Design</b>		
Knowledge of project engineers	--	+
Design cost	-	+
Flexible design of building and building area	-	+
Same technical solution for different ambient conditions	-	+
<b>7. Installation</b>		
Special certificates or licenses for installers	-	+
Costs and complexity of installation	-	+
Special requirements for pipes installation	-	+
Commissioning costs	-	+
<b>8. Operation</b>		
Design of sales area	+	+
Safety for customers and staff	-	+
Power consumption	+	+
Service and maintenance	-	+

# P&IDiagramm



⊙ - Compressor

⋈ - Valve

◇ - Filter

⊂ - Receiver

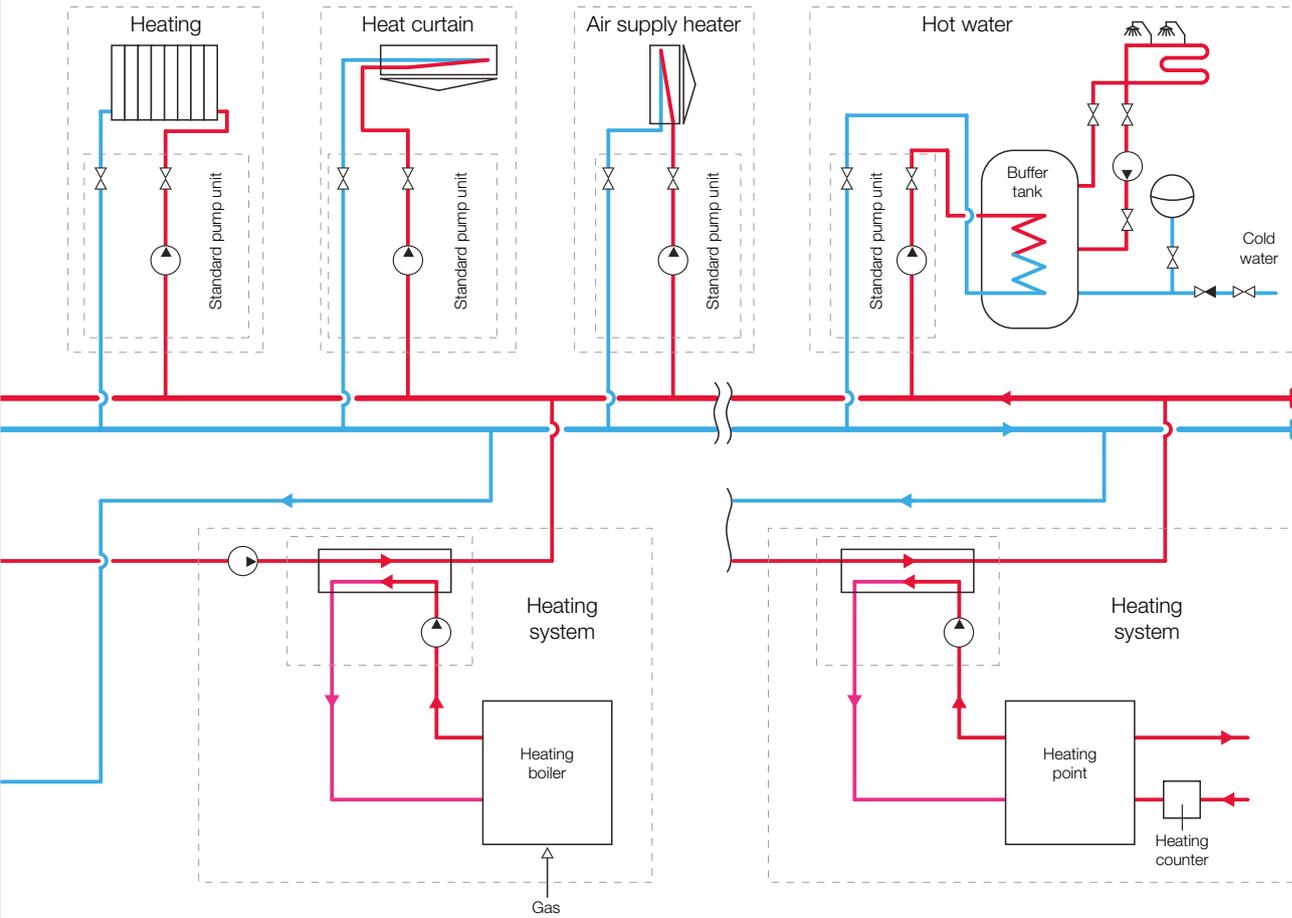
⊙ - Pump

⋈ - 3-way valve

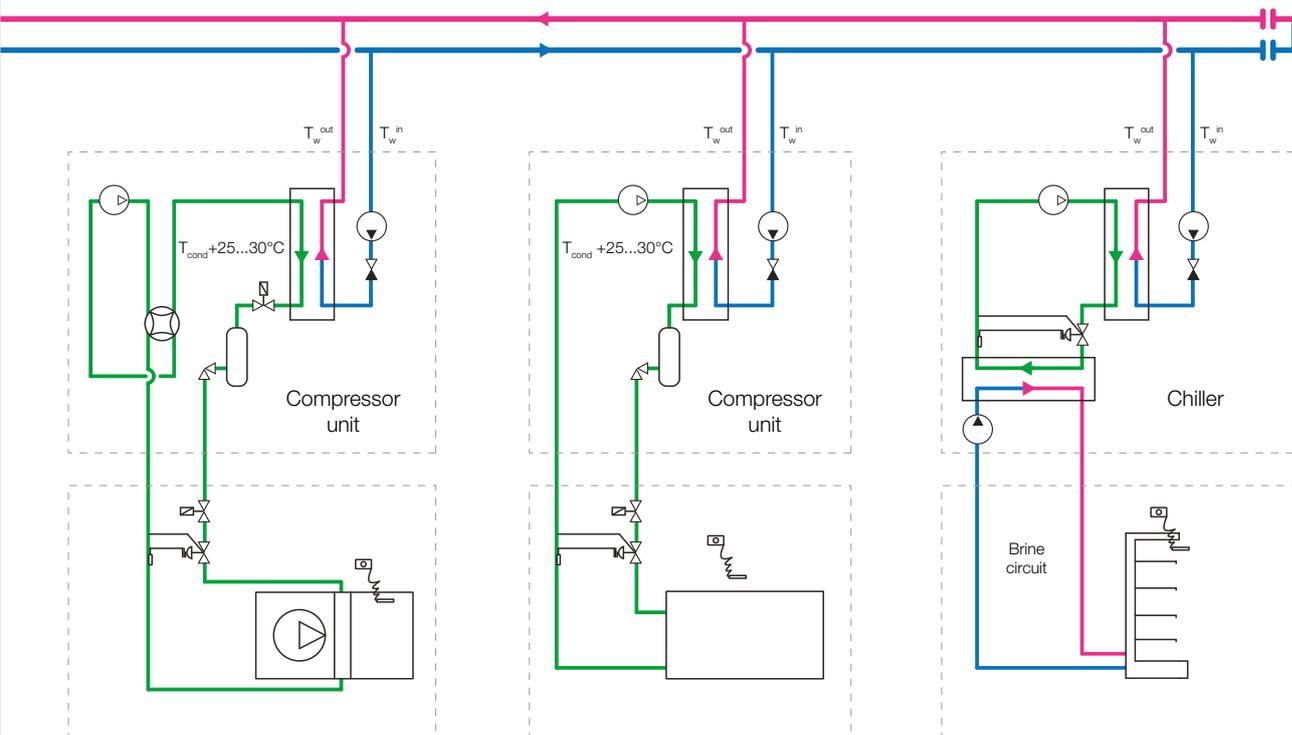
⊙ - Expansion vessel

⊙ - Thermostat / Temperature sensor

⊙ - 4-way valve



Heating part +50...60°C



Cooling part

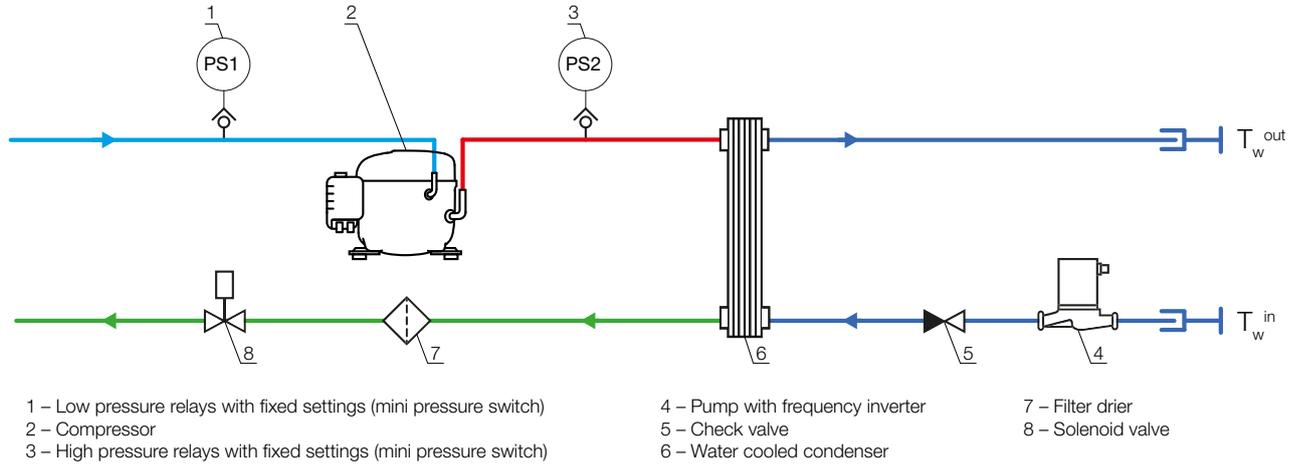


# R290 Condensing Unit

OA – Condensing unit  
**531**  
 L – low, **M** – medium  
 S – Standard  
 H – Hermetic reciprocating  
**6** – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

OA 531 - M S - H 6



## Medium temperature

Models	Max. operation current	Starting current	Sound pressure level	Liquid pipes	Suction pipes	Length	Width	Height	Net weight
	A	A	dB (A)	inch	inch	mm	mm	mm	kg
OA531-MS-H6	3.3	13.5	25	1/4	3/8	825	340	300	35.6
OA531-MS-H9	5.1	17.1	25	1/4	3/8	825	340	300	36.2
OA531-MS-H13	5.3	16.2	25	1/4	3/8	825	340	300	37.0
OA531-MS-H15	5.8	19.2	25	1/4	3/8	825	340	300	37.8
OA531-MS-H21	7.0	30.0	25	1/4	1/2	840	340	340	48.0
OA531-MS-H28	8.9	35.0	25	1/4	1/2	840	340	340	50.0
OA531-MS-H42	2 x 7.0	2 x 30.0	29	2 x 1/4	1/2	1320	340	340	85.0
OA531-MS-H55	2 x 8.9	2 x 35.0	29	2 x 1/4	1/2	1320	340	340	87.0

## Low temperature

Models	Max. operation current	Starting current	Sound pressure level	Liquid pipes	Suction pipes	Length	Width	Height	Net weight
	A	A	dB (A)	inch	inch	mm	mm	mm	kg
OA531-LS-H3	2.9	13.5	25	1/4	3/8	825	340	300	35.6
OA531-LS-H4	3.7	14.2	25	1/4	3/8	825	340	300	36.2
OA531-LS-H6	5.3	16.2	25	1/4	3/8	825	340	300	37.0
OA531-LS-H7	5.8	19.2	25	1/4	3/8	825	340	300	37.8
OA531-LS-H9	7.0	30.0	25	1/4	1/2	840	340	340	48.0
OA531-LS-H13	8.9	35.0	25	1/4	1/2	840	340	340	50.0
OA531-LS-H18	2 x 7.0	2 x 30.0	29	2 x 1/4	1/2	1320	340	340	85.0
OA531-LS-H26	2 x 8.9	2 x 35.0	29	2 x 1/4	1/2	1320	340	340	87.0

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz

Water pipes G3/4"



### Medium temperature

Evaporation temperature, °C		+2		0		-2		-4		-6		-8		-10		-12		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW															
OA531-MS-H6	20	1.10	0.28	1.02	0.28	0.95	0.27	0.88	0.27	0.81	0.27	0.75	0.27	0.69	0.26	0.63	0.26	OGT
	30	0.95	0.33	0.88	0.32	0.82	0.32	0.76	0.31	0.70	0.31	0.65	0.30	0.60	0.29	0.55	0.29	
	40	0.80	0.37	0.75	0.36	0.69	0.36	0.64	0.35	0.60	0.34	0.55	0.33	0.51	0.32	0.47	0.31	
OA531-MS-H9	20	1.61	0.42	1.49	0.42	1.38	0.41	1.27	0.41	1.17	0.40	1.08	0.40	0.99	0.39	0.90	0.39	OGT
	30	1.42	0.49	1.31	0.49	1.21	0.48	1.12	0.47	1.03	0.46	0.95	0.45	0.87	0.44	0.79	0.43	
	40	1.21	0.57	1.12	0.56	1.04	0.55	0.96	0.53	0.88	0.52	0.81	0.51	0.74	0.49	0.67	0.48	
OA531-MS-H13	20	2.03	0.51	1.90	0.50	1.78	0.48	1.66	0.47	1.54	0.46	1.44	0.45	1.33	0.44	1.24	0.43	OGT
	30	1.82	0.63	1.70	0.61	1.58	0.60	1.47	0.58	1.37	0.56	1.27	0.54	1.17	0.53	1.09	0.51	
	40	1.60	0.72	1.49	0.70	1.38	0.68	1.28	0.65	1.19	0.63	1.10	0.61	1.01	0.59	0.93	0.56	
OA531-MS-H15	20	2.34	0.79	2.19	0.77	2.04	0.74	1.91	0.71	1.78	0.69	1.65	0.66	1.53	0.64	1.42	0.62	OGT
	30	2.10	0.86	1.96	0.83	1.83	0.80	1.70	0.77	1.58	0.74	1.47	0.71	1.36	0.69	1.26	0.66	
	40	1.87	0.94	1.74	0.90	1.62	0.86	1.50	0.83	1.39	0.80	1.29	0.76	1.19	0.73	1.09	0.70	
OA531-MS-H21	20	3.55	0.79	3.27	0.78	3.00	0.78	2.76	0.77	2.52	0.76	2.30	0.74	2.10	0.73	1.90	0.71	OGT
	30	3.02	0.93	2.78	0.91	2.55	0.90	2.34	0.88	2.14	0.86	1.95	0.83	1.77	0.81	1.61	0.78	
	40	2.51	1.06	2.31	1.03	2.12	1.00	1.94	0.98	1.78	0.95	1.62	0.91	1.48	0.88	1.34	0.85	
OA531-MS-H28	20	4.71	1.15	4.36	1.14	4.02	1.13	3.71	1.12	3.41	1.11	3.12	1.09	2.85	1.07	2.60	1.05	OGT
	30	4.09	1.33	3.78	1.31	3.48	1.29	3.20	1.27	2.94	1.24	2.68	1.21	2.44	1.18	2.21	1.15	
	40	3.45	1.50	3.19	1.46	2.93	1.43	2.69	1.40	2.46	1.36	2.24	1.32	2.03	1.28	1.83	1.23	
OA531-MS-H42	20	7.09	1.58	6.54	1.57	6.01	1.55	5.51	1.54	5.04	1.51	4.60	1.49	4.19	1.46	3.81	1.42	OGT
	30	6.04	1.86	5.55	1.83	5.10	1.79	4.67	1.76	4.27	1.71	3.90	1.67	3.55	1.62	3.22	1.57	
	40	5.03	2.12	4.62	2.06	4.24	2.01	3.89	1.95	3.56	1.89	3.25	1.83	2.96	1.76	2.68	1.69	
OA531-MS-H55	20	9.41	3.73	8.71	3.64	8.05	3.55	7.42	3.47	6.82	3.38	6.25	3.28	5.71	3.19	5.20	3.09	OGT
	30	8.17	4.27	7.55	4.14	6.97	4.02	6.40	3.89	5.87	3.76	5.37	3.62	4.88	3.48	4.43	3.34	
	40	6.91	4.71	6.37	4.54	5.87	4.37	5.38	4.20	4.92	4.02	4.48	3.84	4.07	3.66	3.67	3.46	

### Low temperature

Evaporation temperature, °C		-23		-25		-27		-29		-31		-33		-35		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW													
OA531-LS-H3	20	0.38	0.25	0.34	0.24	0.31	0.23	0.28	0.22	0.25	0.21	0.22	0.20	0.19	0.19	OGT
	30	0.32	0.26	0.29	0.25	0.27	0.24	0.24	0.23	0.21	0.22	0.18	0.21	0.16	0.20	
	40	0.27	0.28	0.24	0.26	0.22	0.25	0.20	0.24	0.17	0.23	0.15	0.21	0.13	0.20	
OA531-LS-H4	20	0.49	0.31	0.46	0.30	0.42	0.29	0.39	0.28	0.35	0.27	0.31	0.26	0.28	0.25	OGT
	30	0.43	0.34	0.39	0.33	0.36	0.31	0.33	0.30	0.30	0.29	0.27	0.28	0.24	0.26	
	40	0.36	0.37	0.33	0.35	0.30	0.34	0.28	0.32	0.25	0.31	0.22	0.29	0.19	0.27	
OA531-LS-H6	20	0.73	0.34	0.68	0.34	0.63	0.34	0.58	0.35	0.52	0.33	0.47	0.36	0.43	0.31	OGT
	30	0.61	0.39	0.56	0.38	0.51	0.37	0.47	0.36	0.41	0.34	0.37	0.34	0.33	0.31	
	40	0.48	0.45	0.44	0.42	0.40	0.40	0.35	0.37	0.31	0.35	0.26	0.32	0.23	0.30	
OA531-LS-H7	20	0.83	0.50	0.77	0.49	0.71	0.47	0.65	0.45	0.59	0.43	0.53	0.41	0.47	0.39	OGT
	30	0.70	0.51	0.65	0.49	0.59	0.47	0.54	0.45	0.48	0.42	0.42	0.40	0.37	0.38	
	40	0.57	0.53	0.52	0.50	0.47	0.48	0.42	0.45	0.36	0.42	0.31	0.39	0.27	0.36	
OA531-LS-H9	20	1.08	0.66	1.00	0.63	0.92	0.61	0.84	0.58	0.76	0.56	0.68	0.53	0.60	0.51	OGT
	30	0.92	0.69	0.85	0.67	0.78	0.64	0.71	0.61	0.64	0.58	0.57	0.55	0.50	0.52	
	40	0.76	0.73	0.70	0.70	0.64	0.67	0.58	0.64	0.52	0.60	0.46	0.57	0.40	0.54	
OA531-LS-H13	20	1.59	0.91	1.47	0.88	1.36	0.84	1.24	0.81	1.12	0.77	1.01	0.74	0.90	0.70	OGT
	30	1.36	0.96	1.25	0.93	1.14	0.88	1.04	0.84	0.92	0.80	0.82	0.76	0.71	0.72	
	40	1.13	1.01	1.03	0.97	0.93	0.92	0.83	0.88	0.73	0.83	0.63	0.78	0.53	0.73	
OA531-LS-H18	20	2.17	1.31	2.01	1.27	1.85	1.22	1.69	1.17	1.51	1.12	1.36	1.07	1.21	1.02	OGT
	30	1.85	1.38	1.70	1.33	1.56	1.28	1.42	1.22	1.27	1.16	1.13	1.10	1.01	1.05	
	40	1.52	1.45	1.40	1.40	1.28	1.33	1.16	1.27	1.03	1.20	0.91	1.14	0.80	1.08	
OA531-LS-H26	20	3.18	1.82	2.94	1.76	2.71	1.69	2.48	1.62	2.25	1.55	2.02	1.47	1.80	1.40	OGT
	30	2.72	1.92	2.50	1.85	2.28	1.77	2.07	1.68	1.85	1.60	1.64	1.51	1.43	1.43	
	40	2.26	2.03	2.06	1.95	1.86	1.85	1.66	1.75	1.45	1.65	1.25	1.55	1.06	1.46	

T<sub>w</sub><sup>in</sup> – Water inlet temperature, °C

T<sub>w</sub><sup>out</sup> – Water outlet temperature, °C

Q<sub>o</sub> – Cooling capacity, kW

P – Power consumption, kW

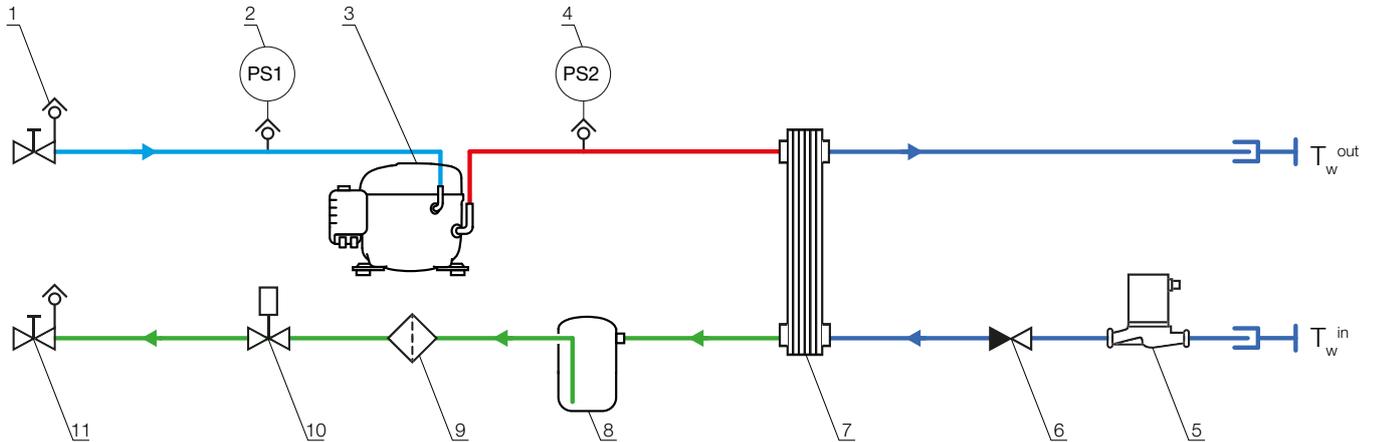
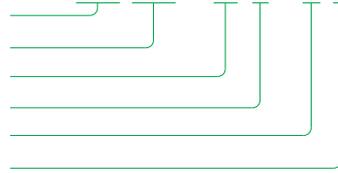
OGT – Operation with heat transformer

# R455A Condensing Unit

OA – Condensing unit  
**331**  
 L – low, M – medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

OA 331 - M S - H 6



- 1 - Shut-off valve Rotalock with service valves on the unit's housing
- 2 - Low pressure relays with fixed settings (mini pressure switch)
- 3 - Compressor
- 4 - High pressure relays with fixed settings (mini pressure switch)
- 5 - Pump with frequency inverter
- 6 - Check valve

- 7 - Water cooled condenser
- 8 - Refrigerant receiver
- 9 - Filter drier
- 10 - Solenoid valve
- 11 - Shut-off valve Rotalock with service valves on the unit's housing

## Medium temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-MS-H6	2.9	11.4	1.6	18	3/8	3/8	825	340	300	35.6
OA331-MS-H13	5.9	19.4	1.6	25	3/8	3/8	825	340	300	37.0
OA331-MS-H15	5.3	19.3	1.6	25	3/8	3/8	825	340	300	37.8
OA331-MS-H18	6.7	22.6	2.3	22	3/8	1/2	840	340	340	52.5
OA331-MS-H29	11.3	33.0	2.3	25	3/8	1/2	840	340	340	53.9
OA331-MS-H32	12.7	39.0	2.3	25	3/8	1/2	840	340	340	54.0
OA331-MS-H41	15.2	45.0	2.3	29	3/8	1/2	840	340	340	54.0
OA331-MS-H56	2 x 12.7	2 x 39.0	2.3	28	3/8	7/8	1320	340	340	80.2
OA331-MS-H82	2 x 15.2	2 x 45.0	2.3	32	3/8	7/8	1320	340	340	80.2

## Low temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-LS-H6	5.9	21.0	2.3	18	3/8	1/2	840	340	340	52.5
OA331-LS-H7	5.7	27.0	2.3	18	3/8	1/2	840	340	340	53.8
OA331-LS-H9	8.2	30.0	2.3	19	3/8	1/2	840	340	340	53.8
OA331-LS-H12	10.0	40.0	2.3	22	3/8	1/2	840	340	340	54.6
OA331-LS-H18	2 x 8.2	2 x 30.0	2.3	21	3/8	7/8	1320	340	340	79.8
OA331-LS-H23	2 x 10.0	2 x 40.0	2.3	25	3/8	7/8	1320	340	340	81.4

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz

Water pipes G3/4"



### Medium temperature

Evaporation temperature, °C		+2		0		-2		-4		-6		-8		-10		-12		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW															
OA331-MS-H6	20	0.81	0.25	0.75	0.25	0.70	0.25	0.64	0.24	0.58	0.24	0.52	0.23	0.47	0.23	0.43	0.22	OGT
	30	0.68	0.29	0.64	0.28	0.59	0.28	0.54	0.27	0.49	0.26	0.44	0.26	0.40	0.25	0.36	0.24	
	40	0.56	0.33	0.52	0.32	0.49	0.31	0.44	0.29	0.40	0.29	0.36	0.28	0.33	0.27	0.30	0.26	
OA331-MS-H13	20	1.69	0.51	1.58	0.50	1.48	0.49	1.35	0.47	1.24	0.46	1.13	0.45	1.03	0.44	0.94	0.43	OGT
	30	1.43	0.58	1.34	0.57	1.25	0.55	1.15	0.53	1.05	0.52	0.96	0.50	0.87	0.49	0.80	0.48	
	40	1.17	0.65	1.10	0.63	1.02	0.61	0.94	0.59	0.86	0.57	0.78	0.55	0.71	0.54	0.65	0.52	
OA331-MS-H15	20	1.96	0.61	1.84	0.60	1.72	0.59	1.57	0.57	1.44	0.56	1.32	0.55	1.21	0.54	1.10	0.53	OGT
	30	1.67	0.68	1.57	0.66	1.46	0.65	1.34	0.62	1.23	0.61	1.13	0.60	1.03	0.58	0.94	0.57	
	40	1.38	0.75	1.30	0.73	1.21	0.71	1.11	0.68	1.02	0.66	0.93	0.65	0.85	0.63	0.78	0.61	
OA331-MS-H18	20	2.40	0.69	2.24	0.68	2.08	0.67	1.90	0.64	1.73	0.63	1.57	0.62	1.42	0.60	1.29	0.59	OGT
	30	1.99	0.78	1.86	0.76	1.73	0.74	1.58	0.71	1.44	0.69	1.30	0.67	1.18	0.65	1.06	0.63	
	40	1.59	0.87	1.49	0.84	1.38	0.82	1.26	0.77	1.14	0.75	1.03	0.72	0.93	0.70	0.84	0.67	
OA331-MS-H29	20	3.90	1.02	3.64	1.00	3.38	0.97	3.08	0.93	2.79	0.91	2.53	0.88	2.28	0.86	2.06	0.83	OGT
	30	3.23	1.15	3.01	1.12	2.79	1.08	2.54	1.03	2.30	0.99	2.08	0.96	1.87	0.93	1.68	0.89	
	40	2.56	1.28	2.38	1.24	2.20	1.19	2.00	1.13	1.81	1.08	1.63	1.04	1.46	1.00	1.30	0.95	
OA331-MS-H32	20	4.22	1.14	3.95	1.11	3.68	1.08	3.36	1.04	3.06	1.01	2.79	0.99	2.53	0.96	2.30	0.93	OGT
	30	3.52	1.28	3.30	1.25	3.07	1.21	2.80	1.15	2.55	1.12	2.32	1.08	2.10	1.05	1.90	1.01	
	40	2.83	1.43	2.64	1.38	2.45	1.34	2.24	1.26	2.03	1.22	1.84	1.18	1.67	1.13	1.50	1.09	
OA331-MS-H41	20	5.47	1.66	5.12	1.62	4.77	1.58	4.36	1.51	3.97	1.47	3.61	1.43	3.28	1.39	2.97	1.35	OGT
	30	4.60	1.83	4.30	1.78	4.00	1.73	3.64	1.65	3.32	1.60	3.01	1.55	2.73	1.50	2.46	1.45	
	40	3.72	2.00	3.47	1.94	3.22	1.88	2.93	1.79	2.66	1.73	2.41	1.67	2.17	1.61	1.95	1.55	
OA331-MS-H56	20	7.53	2.04	7.04	2.00	6.55	1.95	5.97	1.86	5.44	1.82	4.94	1.78	4.48	1.73	4.05	1.68	OGT
	30	6.23	2.30	5.81	2.23	5.40	2.16	4.91	2.04	4.46	1.98	4.04	1.91	3.64	1.84	3.28	1.77	
	40	4.93	2.55	4.59	2.45	4.25	2.36	3.85	2.22	3.48	2.14	3.14	2.05	2.81	1.96	2.51	1.86	
OA331-MS-H82	20	10.95	3.32	10.24	3.24	9.54	3.16	8.71	3.02	7.94	2.94	7.22	2.86	6.56	2.78	5.94	2.70	OGT
	30	9.20	3.66	8.59	3.56	7.99	3.46	7.29	3.29	6.63	3.20	6.02	3.10	5.45	3.00	4.92	2.90	
	40	7.44	4.01	6.95	3.89	6.45	3.76	5.86	3.57	5.32	3.45	4.82	3.33	4.35	3.22	3.91	3.09	

### Low temperature

Evaporation temperature, °C		-23		-25		-27		-29		-31		-33		-35		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW													
OA331-LS-H6	20	0.81	0.55	0.74	0.52	0.67	0.50	0.59	0.48	0.52	0.45	0.45	0.43	0.39	0.41	OGT
	30	0.65	0.56	0.59	0.54	0.54	0.51	0.47	0.48	0.40	0.45	0.35	0.43	0.30	0.40	
	40	0.49	0.58	0.44	0.55	0.40	0.52	0.35	0.48	0.29	0.45	0.25	0.42	0.21	0.39	
OA331-LS-H7	20	0.95	0.65	0.87	0.63	0.79	0.60	0.70	0.57	0.61	0.55	0.54	0.52	0.47	0.49	OGT
	30	0.77	0.67	0.70	0.64	0.64	0.61	0.56	0.58	0.49	0.55	0.42	0.51	0.36	0.48	
	40	0.59	0.70	0.54	0.66	0.49	0.62	0.42	0.58	0.36	0.55	0.31	0.51	0.26	0.47	
OA331-LS-H9	20	1.22	0.79	1.12	0.76	1.02	0.72	0.91	0.69	0.81	0.66	0.71	0.62	0.62	0.59	OGT
	30	1.00	0.82	0.91	0.78	0.83	0.74	0.74	0.70	0.65	0.66	0.56	0.62	0.49	0.58	
	40	0.78	0.86	0.71	0.81	0.64	0.77	0.56	0.72	0.49	0.67	0.42	0.62	0.36	0.58	
OA331-LS-H12	20	1.55	1.08	1.43	1.04	1.31	0.99	1.17	0.95	1.04	0.91	0.92	0.86	0.81	0.82	OGT
	30	1.28	1.13	1.17	1.08	1.08	1.03	0.95	0.97	0.84	0.92	0.74	0.87	0.65	0.82	
	40	1.01	1.18	0.92	1.12	0.84	1.06	0.74	1.00	0.65	0.94	0.56	0.87	0.48	0.81	
OA331-LS-H18	20	2.43	1.60	2.23	1.53	2.05	1.47	1.82	1.40	1.61	1.33	1.42	1.27	1.24	1.20	OGT
	30	1.99	1.68	1.82	1.60	1.66	1.51	1.47	1.43	1.29	1.35	1.13	1.27	0.98	1.18	
	40	1.55	1.76	1.41	1.66	1.28	1.56	1.12	1.46	0.97	1.36	0.84	1.27	0.71	1.17	
OA331-LS-H23	20	3.11	2.10	2.85	2.02	2.62	1.93	2.34	1.85	2.07	1.76	1.83	1.68	1.61	1.59	OGT
	30	2.56	2.19	2.35	2.09	2.15	1.99	1.91	1.88	1.68	1.78	1.48	1.68	1.29	1.57	
	40	2.02	2.29	1.84	2.16	1.68	2.04	1.48	1.92	1.29	1.80	1.12	1.67	0.97	1.55	

T<sub>w</sub><sup>in</sup> – Water inlet temperature, °C

T<sub>w</sub><sup>out</sup> – Water outlet temperature, °C

Q<sub>o</sub> – Cooling capacity, kW

P – Power consumption, kW

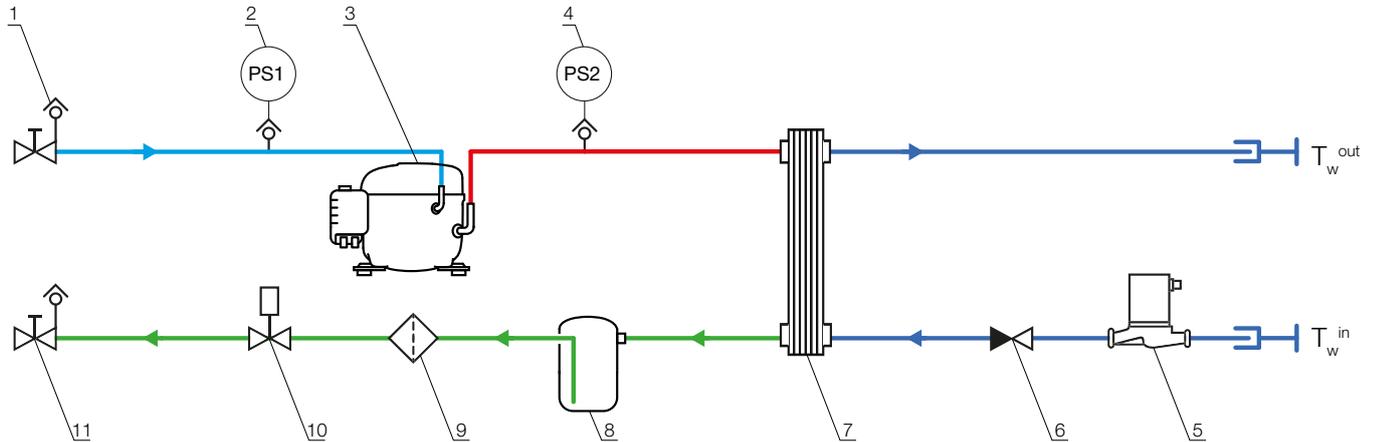
OGT – Operation with heat transformer

# R449A Condensing Unit

OA – Condensing unit  
**331**  
 L – low, M – medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

OA 331 - M S - H 6



- 1 - Shut-off valve Rotalock with service valves on the unit's housing
- 2 - Low pressure relays with fixed settings (mini pressure switch)
- 3 - Compressor
- 4 - High pressure relays with fixed settings (mini pressure switch)
- 5 - Pump with frequency inverter
- 6 - Check valve

- 7 - Water cooled condenser
- 8 - Refrigerant receiver
- 9 - Filter drier
- 10 - Solenoid valve
- 11 - Shut-off valve Rotalock with service valves on the unit's housing

## Medium temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-MS-H6	2.9	11.4	1.6	18	3/8	3/8	825	340	300	35.6
OA331-MS-H13	5.9	19.4	1.6	25	3/8	3/8	825	340	300	37.0
OA331-MS-H15	5.3	19.3	1.6	25	3/8	3/8	825	340	300	37.8
OA331-MS-H18	6.7	22.6	2.3	22	3/8	1/2	840	340	340	52.5
OA331-MS-H29	11.3	33.0	2.3	25	3/8	1/2	840	340	340	53.9
OA331-MS-H32	12.7	39.0	2.3	25	3/8	1/2	840	340	340	54.0
OA331-MS-H41	15.2	45.0	2.3	29	3/8	1/2	840	340	340	54.0
OA331-MS-H56	2 x 12.7	2 x 39.0	2.3	28	3/8	7/8	1320	340	340	80.2
OA331-MS-H82	2 x 15.2	2 x 45.0	2.3	32	3/8	7/8	1320	340	340	80.2

## Low temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-LS-H6	5.9	21.0	2.3	18	3/8	1/2	840	340	340	52.5
OA331-LS-H7	5.7	27.0	2.3	18	3/8	1/2	840	340	340	53.8
OA331-LS-H9	8.2	30.0	2.3	19	3/8	1/2	840	340	340	53.8
OA331-LS-H12	10.0	40.0	2.3	22	3/8	1/2	840	340	340	54.6
OA331-LS-H18	2 x 8.2	2 x 30.0	2.3	21	3/8	7/8	1320	340	340	79.8
OA331-LS-H23	2 x 10.0	2 x 40.0	2.3	25	3/8	7/8	1320	340	340	81.4

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz

Water pipes G3/4"



### Medium temperature

Evaporation temperature, °C		+2		0		-2		-4		-6		-8		-10		-12		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW															
OA331-MS-H6	20	0.78	0.23	0.71	0.22	0.65	0.22	0.59	0.22	0.53	0.21	0.48	0.21	0.43	0.20	0.39	0.20	OGT
	30	0.68	0.26	0.61	0.25	0.56	0.25	0.50	0.24	0.46	0.24	0.41	0.23	0.37	0.22	0.33	0.22	
	40	0.57	0.29	0.51	0.28	0.46	0.28	0.42	0.27	0.38	0.26	0.34	0.25	0.30	0.25	0.27	0.24	
OA331-MS-H13	20	1.62	0.46	1.49	0.45	1.36	0.44	1.24	0.43	1.13	0.42	1.03	0.41	0.94	0.40	0.85	0.38	OGT
	30	1.40	0.53	1.28	0.51	1.17	0.50	1.07	0.48	0.97	0.47	0.88	0.45	0.80	0.44	0.72	0.43	
	40	1.18	0.59	1.08	0.57	0.98	0.55	0.89	0.54	0.81	0.52	0.73	0.51	0.66	0.49	0.60	0.48	
OA331-MS-H15	20	1.88	0.54	1.73	0.53	1.58	0.52	1.45	0.51	1.32	0.50	1.21	0.49	1.10	0.48	0.99	0.47	OGT
	30	1.64	0.61	1.50	0.59	1.37	0.58	1.25	0.57	1.14	0.55	1.04	0.54	0.94	0.52	0.85	0.51	
	40	1.39	0.67	1.27	0.65	1.16	0.64	1.06	0.62	0.96	0.60	0.88	0.59	0.79	0.57	0.71	0.56	
OA331-MS-H18	20	2.30	0.62	2.10	0.61	1.91	0.59	1.73	0.58	1.57	0.57	1.42	0.55	1.28	0.54	1.15	0.52	OGT
	30	1.94	0.70	1.77	0.68	1.60	0.66	1.45	0.65	1.31	0.63	1.18	0.61	1.06	0.59	0.95	0.57	
	40	1.60	0.78	1.45	0.75	1.31	0.73	1.18	0.70	1.07	0.68	0.96	0.66	0.85	0.63	0.76	0.61	
OA331-MS-H29	20	3.74	0.91	3.41	0.89	3.09	0.86	2.80	0.84	2.53	0.81	2.28	0.79	2.05	0.76	1.83	0.74	OGT
	30	3.14	1.03	2.85	1.00	2.58	0.97	2.33	0.93	2.10	0.90	1.88	0.87	1.68	0.84	1.50	0.80	
	40	2.57	1.15	2.32	1.11	2.09	1.06	1.88	1.02	1.68	0.98	1.50	0.94	1.33	0.90	1.17	0.86	
OA331-MS-H32	20	4.06	1.03	3.70	1.00	3.38	0.97	3.07	0.94	2.79	0.91	2.52	0.89	2.28	0.86	2.05	0.83	OGT
	30	3.44	1.16	3.13	1.12	2.85	1.09	2.58	1.05	2.34	1.02	2.11	0.98	1.90	0.95	1.71	0.91	
	40	2.84	1.28	2.58	1.24	2.33	1.19	2.11	1.15	1.90	1.11	1.71	1.07	1.53	1.03	1.36	0.99	
OA331-MS-H41	20	5.27	1.49	4.81	1.44	4.39	1.40	3.99	1.36	3.62	1.32	3.28	1.28	2.96	1.24	2.66	1.20	OGT
	30	4.50	1.64	4.10	1.59	3.73	1.54	3.38	1.49	3.06	1.44	2.76	1.39	2.48	1.35	2.22	1.30	
	40	3.73	1.80	3.38	1.74	3.06	1.68	2.77	1.62	2.49	1.57	2.23	1.51	1.99	1.46	1.77	1.41	
OA331-MS-H56	20	7.21	1.85	6.58	1.80	5.99	1.75	5.44	1.70	4.93	1.64	4.46	1.59	4.01	1.54	3.60	1.49	OGT
	30	6.05	2.08	5.50	2.01	4.99	1.94	4.52	1.87	4.07	1.80	3.66	1.73	3.28	1.67	2.92	1.60	
	40	4.90	2.27	4.44	2.19	4.00	2.10	3.60	2.01	3.22	1.93	2.87	1.84	2.55	1.76	2.24	1.68	
OA331-MS-H82	20	10.53	2.97	9.62	2.89	8.77	2.80	7.98	2.72	7.24	2.63	6.56	2.55	5.92	2.47	5.32	2.39	OGT
	30	9.00	3.29	8.20	3.18	7.46	3.08	6.76	2.98	6.12	2.88	5.52	2.79	4.96	2.69	4.44	2.60	
	40	7.46	3.61	6.77	3.48	6.13	3.36	5.53	3.25	4.98	3.13	4.46	3.02	3.98	2.91	3.54	2.81	

### Low temperature

Evaporation temperature, °C		-23		-25		-27		-29		-31		-33		-35		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW													
OA331-LS-H6	20	0.78	0.50	0.69	0.48	0.60	0.46	0.52	0.43	0.45	0.41	0.39	0.39	0.33	0.36	OGT
	30	0.62	0.53	0.54	0.50	0.47	0.47	0.40	0.44	0.34	0.41	0.29	0.39	0.24	0.36	
	40	0.47	0.53	0.40	0.50	0.34	0.46	0.29	0.43	0.24	0.40	0.20	0.36	0.16	0.33	
OA331-LS-H7	20	0.91	0.60	0.81	0.57	0.71	0.54	0.62	0.52	0.54	0.49	0.46	0.46	0.39	0.44	OGT
	30	0.73	0.63	0.64	0.59	0.56	0.56	0.48	0.53	0.41	0.49	0.35	0.46	0.29	0.43	
	40	0.57	0.64	0.49	0.60	0.42	0.56	0.36	0.52	0.30	0.48	0.25	0.45	0.21	0.41	
OA331-LS-H9	20	1.17	0.73	1.04	0.69	0.92	0.66	0.81	0.62	0.71	0.59	0.61	0.56	0.53	0.52	OGT
	30	0.95	0.76	0.84	0.72	0.73	0.68	0.64	0.64	0.55	0.60	0.47	0.56	0.40	0.52	
	40	0.74	0.79	0.64	0.74	0.56	0.69	0.48	0.64	0.41	0.60	0.34	0.55	0.28	0.50	
OA331-LS-H12	20	1.50	1.00	1.33	0.95	1.18	0.91	1.04	0.86	0.91	0.82	0.80	0.77	0.69	0.73	OGT
	30	1.22	1.05	1.08	1.00	0.95	0.94	0.83	0.89	0.72	0.84	0.62	0.78	0.53	0.73	
	40	0.96	1.09	0.84	1.02	0.74	0.96	0.64	0.90	0.54	0.84	0.46	0.77	0.39	0.71	
OA331-LS-H18	20	2.34	1.47	2.08	1.40	1.84	1.33	1.62	1.27	1.42	1.20	1.23	1.13	1.06	1.06	OGT
	30	1.90	1.55	1.67	1.47	1.47	1.39	1.28	1.31	1.10	1.23	0.94	1.14	0.80	1.06	
	40	1.47	1.61	1.29	1.51	1.11	1.41	0.96	1.31	0.81	1.21	0.68	1.11	0.56	1.01	
OA331-LS-H23	20	3.00	1.94	2.67	1.85	2.36	1.77	2.08	1.68	1.83	1.59	1.59	1.51	1.38	1.42	OGT
	30	2.45	2.05	2.16	1.94	1.90	1.83	1.66	1.73	1.44	1.62	1.24	1.52	1.06	1.41	
	40	1.93	2.10	1.69	1.97	1.47	1.84	1.27	1.72	1.09	1.60	0.92	1.47	0.78	1.35	

T<sub>w</sub><sup>in</sup> – Water inlet temperature, °C

T<sub>w</sub><sup>out</sup> – Water outlet temperature, °C

Q<sub>o</sub> – Cooling capacity, kW

P – Power consumption, kW

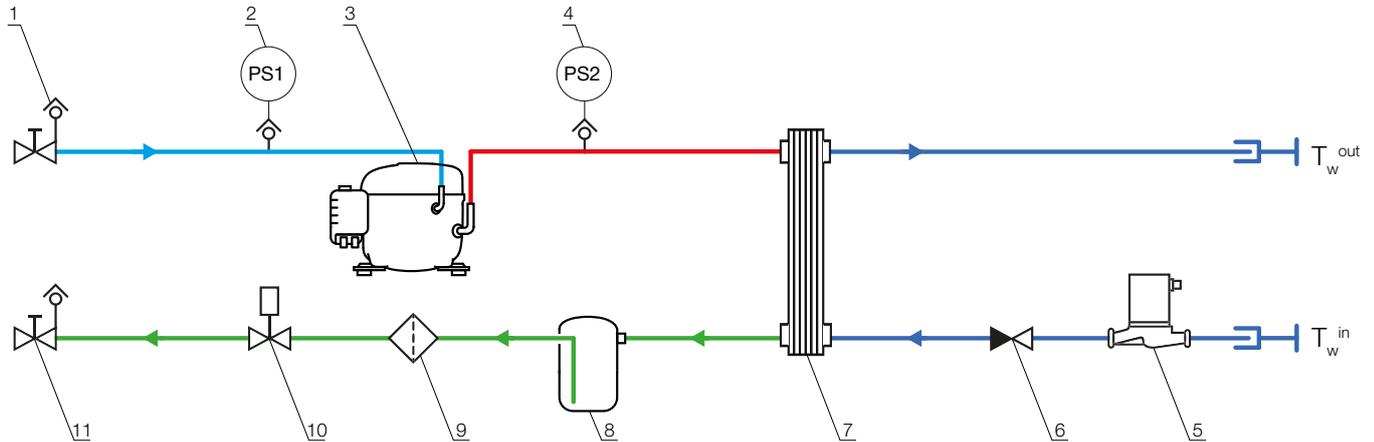
OGT – Operation with heat transformer

# R452A Condensing Unit

OA – Condensing unit  
**331**  
 L – low, M – medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

OA 331 - M S - H 6



- 1 - Shut-off valve Rotalock with service valves on the unit's housing
- 2 - Low pressure relays with fixed settings (mini pressure switch)
- 3 - Compressor
- 4 - High pressure relays with fixed settings (mini pressure switch)
- 5 - Pump with frequency inverter
- 6 - Check valve

- 7 - Water cooled condenser
- 8 - Refrigerant receiver
- 9 - Filter drier
- 10 - Solenoid valve
- 11 - Shut-off valve Rotalock with service valves on the unit's housing

## Medium temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-MS-H6	2.9	11.4	1.6	18	3/8	3/8	825	340	300	35.6
OA331-MS-H13	5.9	19.4	1.6	25	3/8	3/8	825	340	300	37.0
OA331-MS-H15	5.3	19.3	1.6	25	3/8	3/8	825	340	300	37.8
OA331-MS-H18	6.7	22.6	2.3	22	3/8	1/2	840	340	340	52.5
OA331-MS-H29	11.3	33.0	2.3	25	3/8	1/2	840	340	340	53.9
OA331-MS-H32	12.7	39.0	2.3	25	3/8	1/2	840	340	340	54.0
OA331-MS-H41	15.2	45.0	2.3	29	3/8	1/2	840	340	340	54.0
OA331-MS-H56	2 x 12.7	2 x 39.0	2.3	28	3/8	7/8	1320	340	340	80.2
OA331-MS-H82	2 x 15.2	2 x 45.0	2.3	32	3/8	7/8	1320	340	340	80.2

## Low temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-LS-H6	5.9	21.0	2.3	18	3/8	1/2	840	340	340	52.5
OA331-LS-H7	5.7	27.0	2.3	18	3/8	1/2	840	340	340	53.8
OA331-LS-H9	8.2	30.0	2.3	19	3/8	1/2	840	340	340	53.8
OA331-LS-H12	10.0	40.0	2.3	22	3/8	1/2	840	340	340	54.6
OA331-LS-H18	2 x 8.2	2 x 30.0	2.3	21	3/8	7/8	1320	340	340	79.8
OA331-LS-H23	2 x 10.0	2 x 40.0	2.3	25	3/8	7/8	1320	340	340	81.4

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz

Water pipes G3/4"



### Medium temperature

Evaporation temperature, °C		+2		0		-2		-4		-6		-8		-10		-12		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW															
OA331-MS-H6	20	0.78	0.26	0.73	0.26	0.67	0.25	0.61	0.24	0.55	0.24	0.49	0.24	0.44	0.23	0.39	0.23	OGT
	30	0.67	0.29	0.62	0.29	0.57	0.28	0.52	0.27	0.47	0.26	0.42	0.25	0.37	0.25	0.33	0.24	
	40	0.56	0.32	0.52	0.32	0.48	0.31	0.43	0.29	0.38	0.28	0.34	0.27	0.30	0.26	0.27	0.25	
OA331-MS-H13	20	1.63	0.50	1.52	0.49	1.41	0.48	1.29	0.46	1.17	0.45	1.06	0.44	0.95	0.43	0.86	0.42	OGT
	30	1.39	0.57	1.30	0.55	1.20	0.54	1.10	0.51	0.99	0.50	0.89	0.49	0.81	0.47	0.72	0.46	
	40	1.15	0.63	1.07	0.62	0.99	0.60	0.90	0.57	0.81	0.55	0.73	0.53	0.66	0.51	0.59	0.50	
OA331-MS-H15	20	1.89	0.59	1.77	0.58	1.64	0.57	1.50	0.55	1.36	0.54	1.23	0.53	1.11	0.52	1.00	0.51	OGT
	30	1.63	0.66	1.52	0.65	1.41	0.63	1.28	0.60	1.16	0.59	1.05	0.58	0.95	0.56	0.85	0.55	
	40	1.37	0.73	1.27	0.71	1.18	0.69	1.07	0.66	0.97	0.64	0.87	0.62	0.78	0.60	0.70	0.58	
OA331-MS-H18	20	2.32	0.68	2.16	0.66	1.99	0.65	1.81	0.62	1.63	0.61	1.46	0.60	1.31	0.58	1.17	0.57	OGT
	30	1.94	0.76	1.80	0.74	1.67	0.72	1.51	0.69	1.36	0.67	1.21	0.65	1.08	0.63	0.97	0.60	
	40	1.57	0.85	1.45	0.82	1.34	0.79	1.21	0.75	1.08	0.72	0.97	0.70	0.86	0.67	0.76	0.64	
OA331-MS-H29	20	3.77	0.99	3.51	0.97	3.24	0.95	2.93	0.90	2.63	0.88	2.36	0.86	2.10	0.83	1.87	0.81	OGT
	30	3.15	1.12	2.92	1.09	2.69	1.05	2.43	1.00	2.17	0.96	1.94	0.93	1.72	0.89	1.53	0.86	
	40	2.52	1.25	2.33	1.21	2.14	1.16	1.93	1.09	1.71	1.05	1.52	1.00	1.34	0.96	1.18	0.91	
OA331-MS-H32	20	4.09	1.11	3.80	1.08	3.52	1.06	3.20	1.01	2.88	0.98	2.60	0.96	2.33	0.93	2.09	0.90	OGT
	30	3.43	1.25	3.19	1.21	2.95	1.18	2.68	1.12	2.41	1.08	2.16	1.05	1.93	1.01	1.73	0.97	
	40	2.78	1.40	2.58	1.35	2.38	1.30	2.15	1.23	1.93	1.18	1.72	1.13	1.53	1.09	1.36	1.04	
OA331-MS-H41	20	5.30	1.62	4.93	1.58	4.56	1.54	4.14	1.47	3.74	1.43	3.36	1.39	3.02	1.35	2.70	1.31	OGT
	30	4.48	1.79	4.16	1.74	3.84	1.68	3.48	1.60	3.13	1.55	2.81	1.50	2.51	1.45	2.24	1.39	
	40	3.66	1.96	3.40	1.90	3.13	1.83	2.82	1.73	2.52	1.67	2.25	1.60	2.00	1.54	1.77	1.47	
OA331-MS-H56	20	7.28	1.99	6.77	1.94	6.26	1.90	5.68	1.81	5.12	1.77	4.60	1.72	4.12	1.68	3.68	1.63	OGT
	30	6.07	2.24	5.63	2.17	5.19	2.10	4.70	1.98	4.21	1.92	3.77	1.85	3.35	1.78	2.98	1.70	
	40	4.85	2.49	4.48	2.40	4.12	2.30	3.71	2.16	3.30	2.06	2.93	1.97	2.59	1.88	2.27	1.78	
OA331-MS-H82	20	10.59	3.23	9.86	3.15	9.12	3.07	8.29	2.93	7.47	2.86	6.73	2.78	6.04	2.70	5.41	2.62	OGT
	30	8.96	3.58	8.32	3.47	7.69	3.37	6.97	3.20	6.26	3.10	5.62	2.99	5.02	2.89	4.47	2.79	
	40	7.33	3.92	6.79	3.79	6.25	3.66	5.65	3.46	5.05	3.34	4.50	3.21	4.00	3.08	3.54	2.95	

### Low temperature

Evaporation temperature, °C		-23		-25		-27		-29		-31		-33		-35		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW													
OA331-LS-H6	20	0.82	0.54	0.72	0.51	0.64	0.49	0.56	0.46	0.48	0.44	0.42	0.42	0.36	0.39	OGT
	30	0.65	0.56	0.57	0.52	0.49	0.50	0.43	0.47	0.37	0.44	0.31	0.41	0.26	0.38	
	40	0.48	0.55	0.41	0.52	0.35	0.48	0.30	0.45	0.25	0.42	0.21	0.39	0.17	0.36	
OA331-LS-H7	20	0.96	0.64	0.85	0.61	0.75	0.58	0.66	0.55	0.58	0.52	0.50	0.50	0.43	0.47	OGT
	30	0.76	0.66	0.67	0.62	0.59	0.59	0.51	0.56	0.44	0.52	0.38	0.49	0.32	0.46	
	40	0.58	0.66	0.50	0.62	0.43	0.58	0.37	0.55	0.32	0.51	0.26	0.47	0.22	0.44	
OA331-LS-H9	20	1.23	0.78	1.10	0.74	0.98	0.70	0.86	0.67	0.76	0.63	0.66	0.60	0.58	0.56	OGT
	30	0.99	0.80	0.88	0.76	0.77	0.72	0.68	0.68	0.59	0.64	0.51	0.60	0.43	0.56	
	40	0.75	0.82	0.66	0.77	0.57	0.72	0.49	0.67	0.42	0.63	0.35	0.58	0.29	0.54	
OA331-LS-H12	20	1.57	1.06	1.41	1.02	1.25	0.97	1.11	0.92	0.98	0.87	0.86	0.83	0.75	0.78	OGT
	30	1.27	1.11	1.13	1.05	1.00	1.00	0.88	0.94	0.77	0.89	0.67	0.83	0.58	0.78	
	40	0.98	1.13	0.86	1.06	0.75	1.00	0.65	0.94	0.56	0.88	0.48	0.82	0.41	0.77	
OA331-LS-H18	20	2.46	1.57	2.20	1.50	1.95	1.43	1.73	1.36	1.52	1.29	1.33	1.22	1.15	1.15	OGT
	30	1.98	1.63	1.75	1.55	1.54	1.47	1.35	1.38	1.18	1.30	1.01	1.22	0.87	1.14	
	40	1.50	1.67	1.31	1.57	1.14	1.47	0.98	1.37	0.84	1.28	0.71	1.18	0.59	1.09	
OA331-LS-H23	20	3.15	2.07	2.81	1.98	2.50	1.89	2.22	1.80	1.96	1.71	1.72	1.62	1.51	1.53	OGT
	30	2.55	2.15	2.26	2.04	2.00	1.93	1.76	1.83	1.54	1.72	1.34	1.62	1.15	1.51	
	40	1.96	2.17	1.72	2.05	1.51	1.92	1.31	1.80	1.13	1.68	0.96	1.57	0.81	1.45	

T<sub>w</sub><sup>in</sup> – Water inlet temperature, °C

T<sub>w</sub><sup>out</sup> – Water outlet temperature, °C

Q<sub>o</sub> – Cooling capacity, kW

P – Power consumption, kW

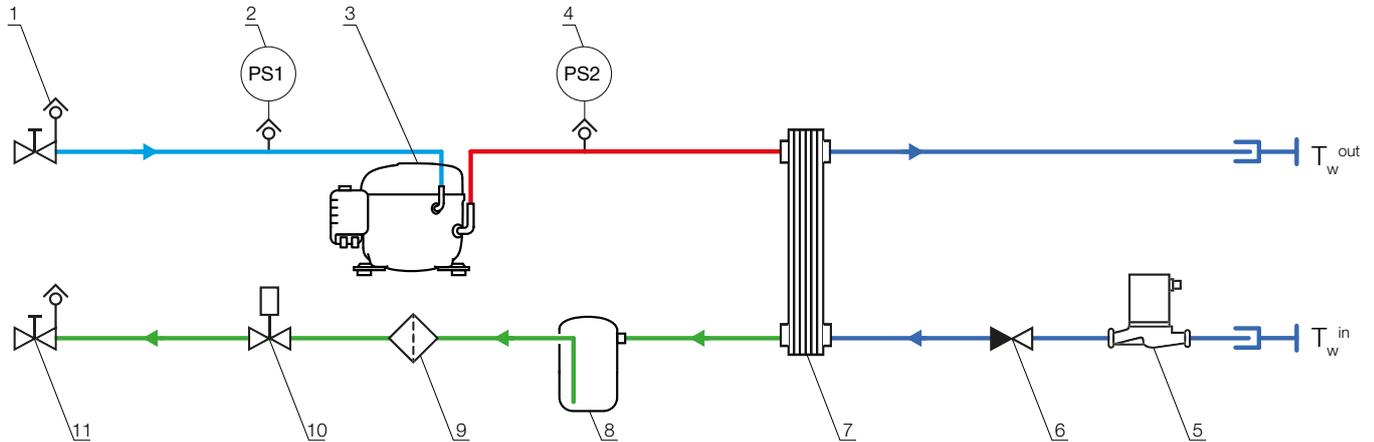
OGT – Operation with heat transformer

# R404A Condensing Unit

OA – Condensing unit  
**331**  
 L – low, M – medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

OA 331 - M S - H 6



- 1 - Shut-off valve Rotalock with service valves on the unit's housing
- 2 - Low pressure relays with fixed settings (mini pressure switch)
- 3 - Compressor
- 4 - High pressure relays with fixed settings (mini pressure switch)
- 5 - Pump with frequency inverter
- 6 - Check valve

- 7 - Water cooled condenser
- 8 - Refrigerant receiver
- 9 - Filter drier
- 10 - Solenoid valve
- 11 - Shut-off valve Rotalock with service valves on the unit's housing

## Medium temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-MS-H6	2.9	11.4	1.6	18	3/8	3/8	825	340	300	35.6
OA331-MS-H13	5.9	19.4	1.6	25	3/8	3/8	825	340	300	37.0
OA331-MS-H15	5.3	19.3	1.6	25	3/8	3/8	825	340	300	37.8
OA331-MS-H18	6.7	22.6	2.3	22	3/8	1/2	840	340	340	52.5
OA331-MS-H29	11.3	33.0	2.3	25	3/8	1/2	840	340	340	53.9
OA331-MS-H32	12.7	39.0	2.3	25	3/8	1/2	840	340	340	54.0
OA331-MS-H41	15.2	45.0	2.3	29	3/8	1/2	840	340	340	54.0
OA331-MS-H56	2 x 12.7	2 x 39.0	2.3	28	3/8	7/8	1320	340	340	80.2
OA331-MS-H82	2 x 15.2	2 x 45.0	2.3	32	3/8	7/8	1320	340	340	80.2

## Low temperature

Models	Max. operation current A	Starting current A	Receiver volume l	Sound pressure level dB (A)	Liquid pipes inch	Suction pipes inch	Length mm	Width mm	Height mm	Net weight kg
OA331-LS-H6	5.9	21.0	2.3	18	3/8	1/2	840	340	340	52.5
OA331-LS-H7	5.7	27.0	2.3	18	3/8	1/2	840	340	340	53.8
OA331-LS-H9	8.2	30.0	2.3	19	3/8	1/2	840	340	340	53.8
OA331-LS-H12	10.0	40.0	2.3	22	3/8	1/2	840	340	340	54.6
OA331-LS-H18	2 x 8.2	2 x 30.0	2.3	21	3/8	7/8	1320	340	340	79.8
OA331-LS-H23	2 x 10.0	2 x 40.0	2.3	25	3/8	7/8	1320	340	340	81.4

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz

Water pipes G3/4"



### Medium temperature

Evaporation temperature, °C		+2		0		-2		-4		-6		-8		-10		-12		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW															
OA331-MS-H6	20	0.82	0.26	0.76	0.26	0.71	0.25	0.65	0.24	0.59	0.24	0.53	0.24	0.48	0.23	0.43	0.23	OGT
	30	0.69	0.30	0.65	0.29	0.60	0.28	0.55	0.27	0.50	0.27	0.45	0.26	0.41	0.25	0.37	0.25	
	40	0.57	0.33	0.53	0.32	0.49	0.32	0.45	0.30	0.41	0.29	0.37	0.28	0.33	0.28	0.30	0.27	
OA331-MS-H13	20	1.71	0.53	1.61	0.51	1.50	0.50	1.37	0.48	1.26	0.47	1.15	0.46	1.05	0.45	0.96	0.44	OGT
	30	1.45	0.59	1.36	0.58	1.27	0.57	1.16	0.54	1.06	0.53	0.97	0.51	0.89	0.50	0.81	0.49	
	40	1.19	0.66	1.11	0.64	1.04	0.63	0.95	0.60	0.87	0.58	0.80	0.56	0.73	0.55	0.66	0.53	
OA331-MS-H15	20	1.99	0.62	1.86	0.61	1.74	0.60	1.60	0.58	1.46	0.57	1.34	0.56	1.23	0.55	1.12	0.54	OGT
	30	1.70	0.69	1.59	0.68	1.49	0.66	1.36	0.64	1.25	0.62	1.14	0.61	1.05	0.59	0.95	0.58	
	40	1.41	0.76	1.32	0.75	1.23	0.73	1.13	0.69	1.03	0.68	0.95	0.66	0.86	0.64	0.79	0.62	
OA331-MS-H18	20	2.43	0.71	2.27	0.70	2.11	0.68	1.93	0.65	1.76	0.64	1.59	0.63	1.45	0.62	1.31	0.60	OGT
	30	2.02	0.80	1.89	0.78	1.76	0.76	1.60	0.72	1.46	0.70	1.32	0.68	1.20	0.66	1.08	0.64	
	40	1.62	0.89	1.51	0.86	1.40	0.83	1.28	0.79	1.16	0.77	1.05	0.74	0.95	0.71	0.85	0.68	
OA331-MS-H29	20	3.96	1.04	3.70	1.02	3.43	0.99	3.13	0.95	2.84	0.93	2.57	0.90	2.32	0.88	2.09	0.85	OGT
	30	3.28	1.18	3.06	1.14	2.83	1.11	2.58	1.05	2.33	1.02	2.11	0.98	1.90	0.95	1.71	0.91	
	40	2.60	1.31	2.42	1.26	2.24	1.22	2.03	1.15	1.83	1.11	1.65	1.06	1.48	1.02	1.32	0.97	
OA331-MS-H32	20	4.29	1.16	4.01	1.14	3.73	1.11	3.41	1.06	3.11	1.03	2.83	1.01	2.57	0.98	2.33	0.95	OGT
	30	3.58	1.31	3.35	1.27	3.11	1.24	2.84	1.18	2.59	1.14	2.35	1.11	2.13	1.07	1.93	1.03	
	40	2.87	1.46	2.68	1.41	2.49	1.36	2.27	1.29	2.06	1.25	1.87	1.20	1.69	1.16	1.53	1.11	
OA331-MS-H41	20	5.56	1.70	5.20	1.66	4.84	1.61	4.42	1.54	4.03	1.50	3.67	1.46	3.33	1.42	3.01	1.38	OGT
	30	4.67	1.87	4.36	1.82	4.06	1.77	3.70	1.68	3.37	1.63	3.06	1.58	2.77	1.53	2.50	1.48	
	40	3.78	2.05	3.52	1.99	3.27	1.92	2.98	1.82	2.70	1.76	2.45	1.70	2.21	1.64	1.98	1.58	
OA331-MS-H56	20	7.65	2.09	7.15	2.04	6.65	1.99	6.06	1.91	5.52	1.86	5.01	1.81	4.54	1.77	4.11	1.72	OGT
	30	6.32	2.35	5.90	2.27	5.48	2.20	4.99	2.09	4.53	2.02	4.10	1.95	3.70	1.88	3.33	1.81	
	40	5.00	2.60	4.66	2.51	4.31	2.41	3.91	2.27	3.53	2.18	3.18	2.09	2.85	2.00	2.55	1.90	
OA331-MS-H82	20	11.11	3.39	10.40	3.31	9.68	3.23	8.84	3.08	8.06	3.00	7.33	2.92	6.65	2.84	6.03	2.76	OGT
	30	9.33	3.74	8.72	3.64	8.11	3.54	7.40	3.37	6.73	3.27	6.11	3.17	5.53	3.06	5.00	2.96	
	40	7.56	4.10	7.05	3.97	6.54	3.85	5.95	3.65	5.40	3.53	4.90	3.41	4.41	3.29	3.96	3.16	

### Low temperature

Evaporation temperature, °C		-23		-25		-27		-29		-31		-33		-35		
Models	T <sub>w</sub> <sup>in</sup> , °C	Q <sub>o</sub> , kW	P, kW													
OA331-LS-H6	20	0.82	0.56	0.75	0.53	0.68	0.51	0.60	0.49	0.52	0.46	0.45	0.44	0.39	0.42	OGT
	30	0.66	0.58	0.60	0.55	0.54	0.52	0.47	0.49	0.41	0.46	0.35	0.43	0.30	0.41	
	40	0.50	0.59	0.45	0.56	0.41	0.53	0.35	0.49	0.30	0.46	0.25	0.43	0.21	0.40	
OA331-LS-H7	20	0.96	0.67	0.88	0.64	0.81	0.61	0.71	0.59	0.62	0.56	0.55	0.53	0.47	0.50	OGT
	30	0.78	0.69	0.71	0.66	0.65	0.62	0.57	0.59	0.50	0.56	0.43	0.52	0.37	0.49	
	40	0.60	0.71	0.55	0.67	0.49	0.63	0.43	0.60	0.37	0.56	0.32	0.52	0.27	0.48	
OA331-LS-H9	20	1.24	0.81	1.13	0.77	1.04	0.74	0.92	0.71	0.82	0.67	0.72	0.64	0.63	0.60	OGT
	30	1.01	0.84	0.92	0.80	0.84	0.76	0.75	0.72	0.66	0.68	0.57	0.64	0.50	0.60	
	40	0.79	0.88	0.72	0.83	0.65	0.78	0.57	0.73	0.49	0.68	0.42	0.64	0.36	0.59	
OA331-LS-H12	20	1.58	1.11	1.45	1.06	1.33	1.02	1.19	0.97	1.05	0.92	0.93	0.88	0.82	0.83	OGT
	30	1.30	1.16	1.19	1.10	1.09	1.05	0.97	0.99	0.85	0.94	0.75	0.89	0.66	0.83	
	40	1.02	1.21	0.93	1.15	0.85	1.08	0.75	1.02	0.66	0.96	0.57	0.89	0.49	0.83	
OA331-LS-H18	20	2.47	1.63	2.27	1.57	2.08	1.50	1.85	1.43	1.64	1.36	1.44	1.29	1.26	1.23	OGT
	30	2.02	1.71	1.85	1.63	1.69	1.55	1.49	1.46	1.31	1.38	1.14	1.29	0.99	1.21	
	40	1.58	1.79	1.43	1.69	1.30	1.59	1.14	1.49	0.99	1.39	0.85	1.29	0.72	1.19	
OA331-LS-H23	20	3.15	2.15	2.90	2.06	2.66	1.97	2.37	1.89	2.10	1.80	1.86	1.72	1.64	1.63	OGT
	30	2.60	2.24	2.38	2.14	2.18	2.03	1.94	1.93	1.71	1.82	1.50	1.71	1.31	1.61	
	40	2.05	2.34	1.87	2.21	1.70	2.09	1.50	1.96	1.31	1.84	1.14	1.71	0.98	1.59	

T<sub>w</sub><sup>in</sup> – Water inlet temperature, °C

T<sub>w</sub><sup>out</sup> – Water outlet temperature, °C

Q<sub>o</sub> – Cooling capacity, kW

P – Power consumption, kW

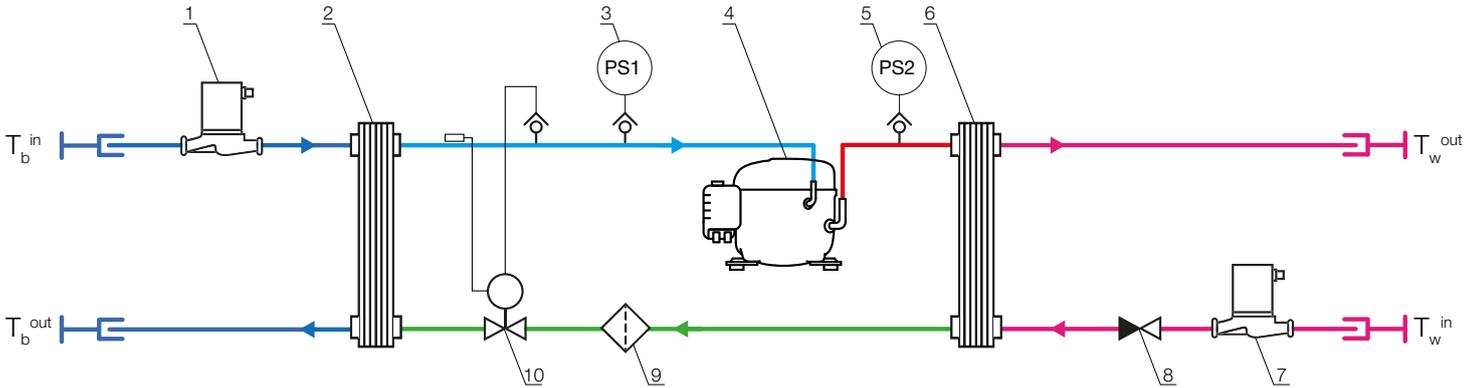
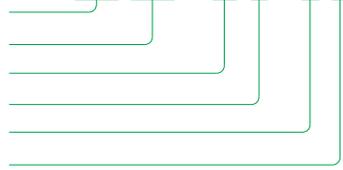
OGT – Operation with heat transformer

# R290 Chiller

## OC 531 - M S - H 6

OC – Chiller  
531  
M – Medium  
S – Standard  
H – Hermetic reciprocating  
6 – Cooling capacity [kW]\*10

Type of unit  
Model range  
Temperature range  
Climatic execution  
Compressor type  
Capacity



- 1 - Pump with frequency inverter
- 2 - Plate evaporator
- 3 - Low pressure switch with fixed settings (mini pressure switch)
- 4 - Compressor
- 5 - High pressure switch with fixed settings (mini pressure switch)
- 6 - Water cooled condenser
- 7 - Pump with frequency inverter
- 8 - Check valve
- 9 - Filter drier
- 10 - Capillary pipe / Thermostatic expansion valve

Models	Brine flow	Max. operation current	Starting current	Sound pressure level	Brine pipes	Water pipes	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	A	A	dB (A)	inch	inch	mm	mm	mm	kg	g
OC531-MS-H6	0.14	3.3	13.5	25	3/4	G3/4	796	340	364	40.5	110
OC531-MS-H9	0.21	5.1	17.1	25	3/4	G3/4	796	340	364	41.0	110
OC531-MS-H13	0.29	5.3	16.2	25	3/4	G3/4	796	340	364	41.5	120
OC531-MS-H15	0.34	5.8	19.2	25	3/4	G3/4	796	340	364	42.5	120
OC531-MS-H21	0.47	7.0	30.0	25	3/4	G3/4	796	340	364	52.0	150
OC531-MS-H28	0.62	8.9	35.0	25	3/4	G3/4	796	340	364	54.0	150
OC531-MS-H42	0.94	2 x 7.0	2 x 30.0	29	3/4	G3/4	1190	340	364	93.0	2 x 150
OC531-MS-H55	1.23	2 x 8.9	2 x 35.0	29	3/4	G3/4	1190	340	364	95.0	2 x 150

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz



$T_b^{in} / T_b^{out}, ^\circ C$		MPG35%		+12/+8		+8/+4		+6/+2		+4/0		+2/-2		0/-4		-2/-6		-4/-8		
Evaporation temperature, $^\circ C$		+2		0		-2		-4		-6		-8		-10		-12				
Models	$T_w^{in}, ^\circ C$	$Q_o$ , kW	P, kW																	
OC531-MS-H6	20	1.10	0.28	1.02	0.28	0.95	0.27	0.88	0.27	0.81	0.27	0.75	0.27	0.69	0.26	0.63	0.26			OGT
	30	0.95	0.33	0.88	0.32	0.82	0.32	0.76	0.31	0.70	0.31	0.65	0.30	0.60	0.29	0.55	0.29			
	40	0.80	0.37	0.75	0.36	0.69	0.36	0.64	0.35	0.60	0.34	0.55	0.33	0.51	0.32	0.47	0.31			
OC531-MS-H9	20	1.61	0.42	1.49	0.42	1.38	0.41	1.27	0.41	1.17	0.40	1.08	0.40	0.99	0.39	0.90	0.39			OGT
	30	1.42	0.49	1.31	0.49	1.21	0.48	1.12	0.47	1.03	0.46	0.95	0.45	0.87	0.44	0.79	0.43			
	40	1.21	0.57	1.12	0.56	1.04	0.55	0.96	0.53	0.88	0.52	0.81	0.51	0.74	0.49	0.67	0.48			
OC531-MS-H13	20	2.03	0.51	1.90	0.50	1.78	0.48	1.66	0.47	1.54	0.46	1.44	0.45	1.33	0.44	1.24	0.43			OGT
	30	1.82	0.63	1.70	0.61	1.58	0.60	1.47	0.58	1.37	0.56	1.27	0.54	1.17	0.53	1.09	0.51			
	40	1.60	0.72	1.49	0.70	1.38	0.68	1.28	0.65	1.19	0.63	1.10	0.61	1.01	0.59	0.93	0.56			
OC531-MS-H15	20	2.34	0.79	2.19	0.77	2.04	0.74	1.91	0.71	1.78	0.69	1.65	0.66	1.53	0.64	1.42	0.62			OGT
	30	2.10	0.86	1.96	0.83	1.83	0.80	1.70	0.77	1.58	0.74	1.47	0.71	1.36	0.69	1.26	0.66			
	40	1.87	0.94	1.74	0.90	1.62	0.86	1.50	0.83	1.39	0.80	1.29	0.76	1.19	0.73	1.09	0.70			
OC531-MS-H21	20	3.55	0.79	3.27	0.78	3.00	0.78	2.76	0.77	2.52	0.76	2.30	0.74	2.10	0.73	1.90	0.71			OGT
	30	3.02	0.93	2.78	0.91	2.55	0.90	2.34	0.88	2.14	0.86	1.95	0.83	1.77	0.81	1.61	0.78			
	40	2.51	1.06	2.31	1.03	2.12	1.00	1.94	0.98	1.78	0.95	1.62	0.91	1.48	0.88	1.34	0.85			
OC531-MS-H28	20	4.71	1.15	4.36	1.14	4.02	1.13	3.71	1.12	3.41	1.11	3.12	1.09	2.85	1.07	2.60	1.05			OGT
	30	4.09	1.33	3.78	1.31	3.48	1.29	3.20	1.27	2.94	1.24	2.68	1.21	2.44	1.18	2.21	1.15			
	40	3.45	1.50	3.19	1.46	2.93	1.43	2.69	1.40	2.46	1.36	2.24	1.32	2.03	1.28	1.83	1.23			
OC531-MS-H42	20	7.09	1.58	6.54	1.57	6.01	1.55	5.51	1.54	5.04	1.51	4.60	1.49	4.19	1.46	3.81	1.42			OGT
	30	6.04	1.86	5.55	1.83	5.10	1.79	4.67	1.76	4.27	1.71	3.90	1.67	3.55	1.62	3.22	1.57			
	40	5.03	2.12	4.62	2.06	4.24	2.01	3.89	1.95	3.56	1.89	3.25	1.83	2.96	1.76	2.68	1.69			
OC531-MS-H55	20	9.41	3.73	8.71	3.64	8.05	3.55	7.42	3.47	6.82	3.38	6.25	3.28	5.71	3.19	5.20	3.09			OGT
	30	8.17	4.27	7.55	4.14	6.97	4.02	6.40	3.89	5.87	3.76	5.37	3.62	4.88	3.48	4.43	3.34			
	40	6.91	4.71	6.37	4.54	5.87	4.37	5.38	4.20	4.92	4.02	4.48	3.84	4.07	3.66	3.67	3.46			

MPG35% – Monopropylenglycol 35%

$Q_o$  – Cooling capacity, kW

P – Power consumption, kW

OGT – Operation with heat transformer

$T_b^{in}$  – Brine inlet temperature,  $^\circ C$

$T_b^{out}$  – Brine outlet temperature,  $^\circ C$

$T_w^{in}$  – Water inlet temperature,  $^\circ C$

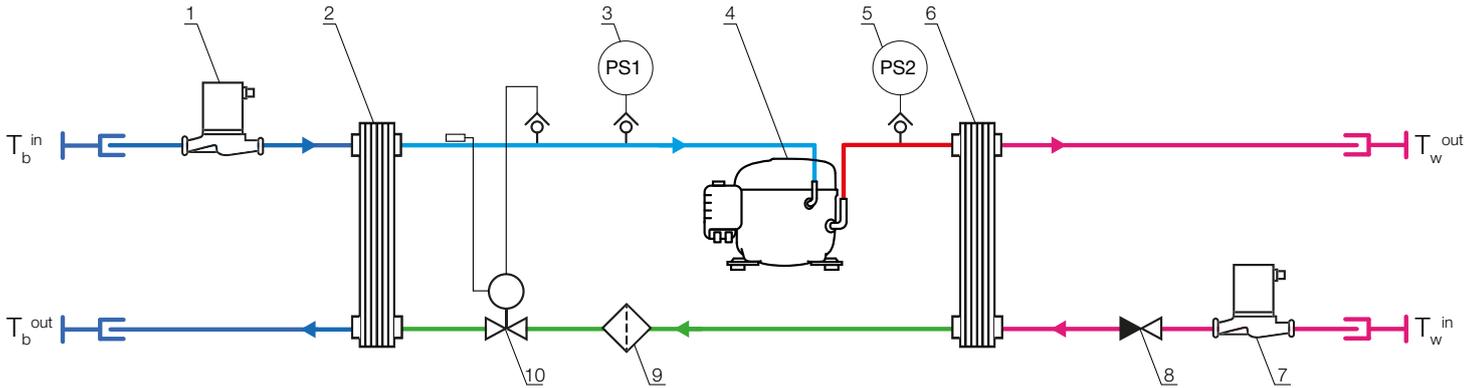
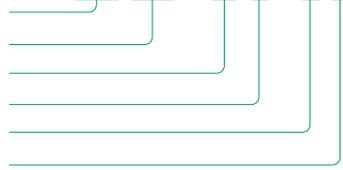
$T_w^{out}$  – Water outlet temperature,  $^\circ C$

# R449A Chiller

## OC 331 - M S - H 6

OC – Chiller  
 331  
 M – Medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity



- 1 - Pump with frequency inverter
- 2 - Plate evaporator
- 3 - Low pressure switch with fixed settings (mini pressure switch)
- 4 - Compressor
- 5 - High pressure switch with fixed settings (mini pressure switch)
- 6 - Water cooled condenser
- 7 - Pump with frequency inverter
- 8 - Check valve
- 9 - Filter drier
- 10 - Capillary pipe / Thermostatic expansion valve

Models	Brine flow	Maximum operating current	Starting current	Sound pressure level	Brine pipes	Water pipes	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	A	A	dB(A)	inch	inch	mm	mm	mm	kg	g
OC331-MS-H6	0.15	2.9	11.4	18	3/4	G3/4	796	340	364	35.6	300
OC331-MS-H13	0.32	5.9	19.4	25	3/4	G3/4	796	340	364	37.0	300
OC331-MS-H15	0.38	5.3	19.3	25	3/4	G3/4	796	340	364	37.8	300
OC331-MS-H18	0.45	6.7	22.6	22	3/4	G3/4	796	340	364	52.5	400
OC331-MS-H29	0.73	11.3	33.0	25	3/4	G3/4	796	340	364	53.9	400
OC331-MS-H32	0.80	12.7	39.0	25	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H41	1.04	15.2	45.0	29	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H56	1.60	2 x 12.7	2 x 39.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400
OC331-MS-H82	2.07	2 x 15.2	2 x 45.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz



$T_b^{in} / T_b^{out}, ^\circ C$		MPG35%		+12/+8		+8/+4		+6/+2		+4/0		+2/-2		0/-4		-2/-6		-4/-8		
Evaporation temperature, $^\circ C$		+2		0		-2		-4		-6		-8		-10		-12				
Models	$T_w^{in}, ^\circ C$	$Q_o, kW$	$P, kW$																	
OC331-MS-H6	20	0.78	0.23	0.71	0.22	0.65	0.22	0.59	0.22	0.53	0.21	0.48	0.21	0.43	0.20	0.39	0.20			OGT
	30	0.68	0.26	0.61	0.25	0.56	0.25	0.50	0.24	0.46	0.24	0.41	0.23	0.37	0.22	0.33	0.22			
	40	0.57	0.29	0.51	0.28	0.46	0.28	0.42	0.27	0.38	0.26	0.34	0.25	0.30	0.25	0.27	0.24			
OC331-MS-H13	20	1.62	0.46	1.49	0.45	1.36	0.44	1.24	0.43	1.13	0.42	1.03	0.41	0.94	0.40	0.85	0.38			OGT
	30	1.40	0.53	1.28	0.51	1.17	0.50	1.07	0.48	0.97	0.47	0.88	0.45	0.80	0.44	0.72	0.43			
	40	1.18	0.59	1.08	0.57	0.98	0.55	0.89	0.54	0.81	0.52	0.73	0.51	0.66	0.49	0.60	0.48			
OC331-MS-H15	20	1.88	0.54	1.73	0.53	1.58	0.52	1.45	0.51	1.32	0.50	1.21	0.49	1.10	0.48	0.99	0.47			OGT
	30	1.64	0.61	1.50	0.59	1.37	0.58	1.25	0.57	1.14	0.55	1.04	0.54	0.94	0.52	0.85	0.51			
	40	1.39	0.67	1.27	0.65	1.16	0.64	1.06	0.62	0.96	0.60	0.88	0.59	0.79	0.57	0.71	0.56			
OC331-MS-H18	20	2.30	0.62	2.10	0.61	1.91	0.59	1.73	0.58	1.57	0.57	1.42	0.55	1.28	0.54	1.15	0.52			OGT
	30	1.94	0.70	1.77	0.68	1.60	0.66	1.45	0.65	1.31	0.63	1.18	0.61	1.06	0.59	0.95	0.57			
	40	1.60	0.78	1.45	0.75	1.31	0.73	1.18	0.70	1.07	0.68	0.96	0.66	0.85	0.63	0.76	0.61			
OC331-MS-H29	20	3.74	0.91	3.41	0.89	3.09	0.86	2.80	0.84	2.53	0.81	2.28	0.79	2.05	0.76	1.83	0.74			OGT
	30	3.14	1.03	2.85	1.00	2.58	0.97	2.33	0.93	2.10	0.90	1.88	0.87	1.68	0.84	1.50	0.80			
	40	2.57	1.15	2.32	1.11	2.09	1.06	1.88	1.02	1.68	0.98	1.50	0.94	1.33	0.90	1.17	0.86			
OC331-MS-H32	20	4.06	1.03	3.70	1.00	3.38	0.97	3.07	0.94	2.79	0.91	2.52	0.89	2.28	0.86	2.05	0.83			OGT
	30	3.44	1.16	3.13	1.12	2.85	1.09	2.58	1.05	2.34	1.02	2.11	0.98	1.90	0.95	1.71	0.91			
	40	2.84	1.28	2.58	1.24	2.33	1.19	2.11	1.15	1.90	1.11	1.71	1.07	1.53	1.03	1.36	0.99			
OC331-MS-H41	20	5.27	1.49	4.81	1.44	4.39	1.40	3.99	1.36	3.62	1.32	3.28	1.28	2.96	1.24	2.66	1.20			OGT
	30	4.50	1.64	4.10	1.59	3.73	1.54	3.38	1.49	3.06	1.44	2.76	1.39	2.48	1.35	2.22	1.30			
	40	3.73	1.80	3.38	1.74	3.06	1.68	2.77	1.62	2.49	1.57	2.23	1.51	1.99	1.46	1.77	1.41			
OC331-MS-H56	20	7.21	1.85	6.58	1.80	5.99	1.75	5.44	1.70	4.93	1.64	4.46	1.59	4.01	1.54	3.60	1.49			OGT
	30	6.05	2.08	5.50	2.01	4.99	1.94	4.52	1.87	4.07	1.80	3.66	1.73	3.28	1.67	2.92	1.60			
	40	4.90	2.27	4.44	2.19	4.00	2.10	3.60	2.01	3.22	1.93	2.87	1.84	2.55	1.76	2.24	1.68			
OC331-MS-H82	20	10.53	2.97	9.62	2.89	8.77	2.80	7.98	2.72	7.24	2.63	6.56	2.55	5.92	2.47	5.32	2.39			OGT
	30	9.00	3.29	8.20	3.18	7.46	3.08	6.76	2.98	6.12	2.88	5.52	2.79	4.96	2.69	4.44	2.60			
	40	7.46	3.61	6.77	3.48	6.13	3.36	5.53	3.25	4.98	3.13	4.46	3.02	3.98	2.91	3.54	2.81			

MPG35% – Monopropylenglycol 35%

$Q_o$  – Cooling capacity, kW

$P$  – Power consumption, kW

OGT – Operation with heat transformer

$T_b^{in}$  – Brine inlet temperature,  $^\circ C$

$T_b^{out}$  – Brine outlet temperature,  $^\circ C$

$T_w^{in}$  – Water inlet temperature,  $^\circ C$

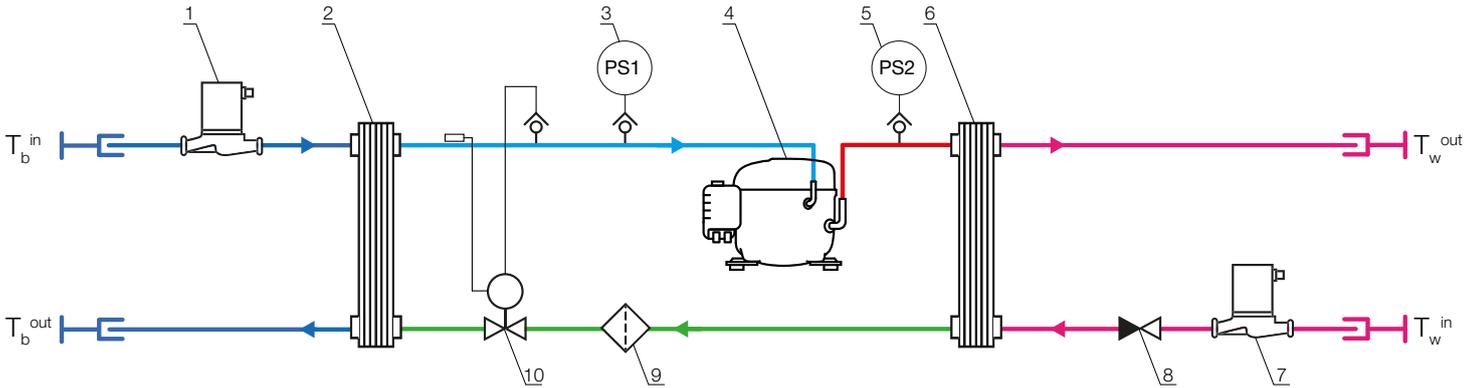
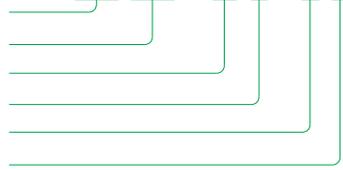
$T_w^{out}$  – Water outlet temperature,  $^\circ C$

# R452A Chiller

## OC 331 - M S - H 6

OC – Chiller  
 331  
 M – Medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity



- 1 - Pump with frequency inverter
- 2 - Plate evaporator
- 3 - Low pressure switch with fixed settings (mini pressure switch)
- 4 - Compressor
- 5 - High pressure switch with fixed settings (mini pressure switch)
- 6 - Water cooled condenser
- 7 - Pump with frequency inverter
- 8 - Check valve
- 9 - Filter drier
- 10 - Capillary pipe / Thermostatic expansion valve

Models	Brine flow	Maximum operating current	Starting current	Sound pressure level	Brine pipes	Water pipes	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	A	A	dB(A)	inch	inch	mm	mm	mm	kg	g
OC331-MS-H6	0.15	2.9	11.4	18	3/4	G3/4	796	340	364	35.6	300
OC331-MS-H13	0.32	5.9	19.4	25	3/4	G3/4	796	340	364	37.0	300
OC331-MS-H15	0.38	5.3	19.3	25	3/4	G3/4	796	340	364	37.8	300
OC331-MS-H18	0.45	6.7	22.6	22	3/4	G3/4	796	340	364	52.5	400
OC331-MS-H29	0.73	11.3	33.0	25	3/4	G3/4	796	340	364	53.9	400
OC331-MS-H32	0.80	12.7	39.0	25	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H41	1.04	15.2	45.0	29	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H56	1.60	2 x 12.7	2 x 39.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400
OC331-MS-H82	2.07	2 x 15.2	2 x 45.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz



$T_b^{in} / T_b^{out}, ^\circ C$		MPG35%		+12/+8		+8/+4		+6/+2		+4/0		+2/-2		0/-4		-2/-6		-4/-8	
Evaporation temperature, $^\circ C$		+2		0		-2		-4		-6		-8		-10		-12			
Models	$T_w^{in}, ^\circ C$	$Q_o$ , kW	P, kW																
OC331-MS-H6	20	0.78	0.26	0.73	0.26	0.67	0.25	0.61	0.24	0.55	0.24	0.49	0.24	0.44	0.23	0.39	0.23		
	30	0.67	0.29	0.62	0.29	0.57	0.28	0.52	0.27	0.47	0.26	0.42	0.25	0.37	0.25	0.33	0.24		
	40	0.56	0.32	0.52	0.32	0.48	0.31	0.43	0.29	0.38	0.28	0.34	0.27	0.30	0.26	0.27	0.25		
OC331-MS-H13	20	1.63	0.50	1.52	0.49	1.41	0.48	1.29	0.46	1.17	0.45	1.06	0.44	0.95	0.43	0.86	0.42		OGT
	30	1.39	0.57	1.30	0.55	1.20	0.54	1.10	0.51	0.99	0.50	0.89	0.49	0.81	0.47	0.72	0.46		
	40	1.15	0.63	1.07	0.62	0.99	0.60	0.90	0.57	0.81	0.55	0.73	0.53	0.66	0.51	0.59	0.50		
OC331-MS-H15	20	1.89	0.59	1.77	0.58	1.64	0.57	1.50	0.55	1.36	0.54	1.23	0.53	1.11	0.52	1.00	0.51		OGT
	30	1.63	0.66	1.52	0.65	1.41	0.63	1.28	0.60	1.16	0.59	1.05	0.58	0.95	0.56	0.85	0.55		
	40	1.37	0.73	1.27	0.71	1.18	0.69	1.07	0.66	0.97	0.64	0.87	0.62	0.78	0.60	0.70	0.58		
OC331-MS-H18	20	2.32	0.68	2.16	0.66	1.99	0.65	1.81	0.62	1.63	0.61	1.46	0.60	1.31	0.58	1.17	0.57		OGT
	30	1.94	0.76	1.80	0.74	1.67	0.72	1.51	0.69	1.36	0.67	1.21	0.65	1.08	0.63	0.97	0.60		
	40	1.57	0.85	1.45	0.82	1.34	0.79	1.21	0.75	1.08	0.72	0.97	0.70	0.86	0.67	0.76	0.64		
OC331-MS-H29	20	3.77	0.99	3.51	0.97	3.24	0.95	2.93	0.90	2.63	0.88	2.36	0.86	2.10	0.83	1.87	0.81		OGT
	30	3.15	1.12	2.92	1.09	2.69	1.05	2.43	1.00	2.17	0.96	1.94	0.93	1.72	0.89	1.53	0.86		
	40	2.52	1.25	2.33	1.21	2.14	1.16	1.93	1.09	1.71	1.05	1.52	1.00	1.34	0.96	1.18	0.91		
OC331-MS-H32	20	4.09	1.11	3.80	1.08	3.52	1.06	3.20	1.01	2.88	0.98	2.60	0.96	2.33	0.93	2.09	0.90		OGT
	30	3.43	1.25	3.19	1.21	2.95	1.18	2.68	1.12	2.41	1.08	2.16	1.05	1.93	1.01	1.73	0.97		
	40	2.78	1.40	2.58	1.35	2.38	1.30	2.15	1.23	1.93	1.18	1.72	1.13	1.53	1.09	1.36	1.04		
OC331-MS-H41	20	5.30	1.62	4.93	1.58	4.56	1.54	4.14	1.47	3.74	1.43	3.36	1.39	3.02	1.35	2.70	1.31		OGT
	30	4.48	1.79	4.16	1.74	3.84	1.68	3.48	1.60	3.13	1.55	2.81	1.50	2.51	1.45	2.24	1.39		
	40	3.66	1.96	3.40	1.90	3.13	1.83	2.82	1.73	2.52	1.67	2.25	1.60	2.00	1.54	1.77	1.47		
OC331-MS-H56	20	7.28	1.99	6.77	1.94	6.26	1.90	5.68	1.81	5.12	1.77	4.60	1.72	4.12	1.68	3.68	1.63		OGT
	30	6.07	2.24	5.63	2.17	5.19	2.10	4.70	1.98	4.21	1.92	3.77	1.85	3.35	1.78	2.98	1.70		
	40	4.85	2.49	4.48	2.40	4.12	2.30	3.71	2.16	3.30	2.06	2.93	1.97	2.59	1.88	2.27	1.78		
OC331-MS-H82	20	10.59	3.23	9.86	3.15	9.12	3.07	8.29	2.93	7.47	2.86	6.73	2.78	6.04	2.70	5.41	2.62		OGT
	30	8.96	3.58	8.32	3.47	7.69	3.37	6.97	3.20	6.26	3.10	5.62	2.99	5.02	2.89	4.47	2.79		
	40	7.33	3.92	6.79	3.79	6.25	3.66	5.65	3.46	5.05	3.34	4.50	3.21	4.00	3.08	3.54	2.95		

MPG35% – Monopropylenglycol 35%

$Q_o$  – Cooling capacity, kW

P – Power consumption, kW

OGT – Operation with heat transformer

$T_b^{in}$  – Brine inlet temperature,  $^\circ C$

$T_b^{out}$  – Brine outlet temperature,  $^\circ C$

$T_w^{in}$  – Water inlet temperature,  $^\circ C$

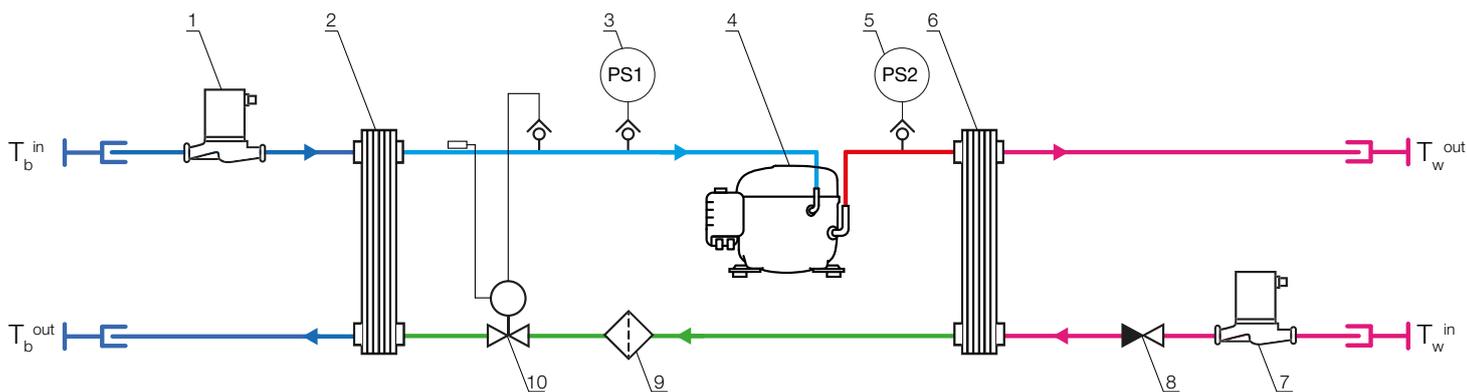
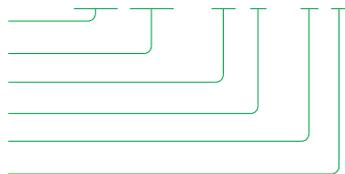
$T_w^{out}$  – Water outlet temperature,  $^\circ C$

# R404A Chiller

OC – Chiller  
 331  
 M – Medium  
 S – Standard  
 H – Hermetic reciprocating  
 6 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity

## OC 331 - M S - H 6



- 1 - Pump with frequency inverter
- 2 - Plate evaporator
- 3 - Low pressure switch with fixed settings (mini pressure switch)
- 4 - Compressor
- 5 - High pressure switch with fixed settings (mini pressure switch)

- 6 - Water cooled condenser
- 7 - Pump with frequency inverter
- 8 - Check valve
- 9 - Filter drier
- 10 - Capillary pipe / Thermostatic expansion valve

Models	Brine flow	Maximum operating current	Starting current	Sound pressure level	Brine pipes	Water pipes	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	A	A	dB(A)	inch	inch	mm	mm	mm	kg	g
OC331-MS-H6	0.15	2.9	11.4	18	3/4	G3/4	796	340	364	35.6	300
OC331-MS-H13	0.32	5.9	19.4	25	3/4	G3/4	796	340	364	37.0	300
OC331-MS-H15	0.38	5.3	19.3	25	3/4	G3/4	796	340	364	37.8	300
OC331-MS-H18	0.45	6.7	22.6	22	3/4	G3/4	796	340	364	52.5	400
OC331-MS-H29	0.73	11.3	33.0	25	3/4	G3/4	796	340	364	53.9	400
OC331-MS-H32	0.80	12.7	39.0	25	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H41	1.04	15.2	45.0	29	3/4	G3/4	796	340	364	54.0	400
OC331-MS-H56	1.60	2 x 12.7	2 x 39.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400
OC331-MS-H82	2.07	2 x 15.2	2 x 45.0	29	3/4	G3/4	1190	340	364	80.2	2 x 400

Compressor Hermetic reciprocating

Power supply ~1-230V-50Hz



$T_b^{in} / T_b^{out}, ^\circ C$		MPG35%		+12/+8		+8/+4		+6/+2		+4/0		+2/-2		0/-4		-2/-6		-4/-8		
Evaporation temperature, $^\circ C$		+2		0		-2		-4		-6		-8		-10		-12				
Models	$T_w^{in}, ^\circ C$	$Q_o, kW$	$P, kW$																	
OC331-MS-H6	20	0.82	0.26	0.76	0.26	0.71	0.25	0.65	0.24	0.59	0.24	0.53	0.24	0.48	0.23	0.43	0.23			OGT
	30	0.69	0.30	0.65	0.29	0.60	0.28	0.55	0.27	0.50	0.27	0.45	0.26	0.41	0.25	0.37	0.25			
	40	0.57	0.33	0.53	0.32	0.49	0.32	0.45	0.30	0.41	0.29	0.37	0.28	0.33	0.28	0.30	0.27			
OC331-MS-H13	20	1.71	0.53	1.61	0.51	1.50	0.50	1.37	0.48	1.26	0.47	1.15	0.46	1.05	0.45	0.96	0.44			OGT
	30	1.45	0.59	1.36	0.58	1.27	0.57	1.16	0.54	1.06	0.53	0.97	0.51	0.89	0.50	0.81	0.49			
	40	1.19	0.66	1.11	0.64	1.04	0.63	0.95	0.60	0.87	0.58	0.80	0.56	0.73	0.55	0.66	0.53			
OC331-MS-H15	20	1.99	0.62	1.86	0.61	1.74	0.60	1.60	0.58	1.46	0.57	1.34	0.56	1.23	0.55	1.12	0.54			OGT
	30	1.70	0.69	1.59	0.68	1.49	0.66	1.36	0.64	1.25	0.62	1.14	0.61	1.05	0.59	0.95	0.58			
	40	1.41	0.76	1.32	0.75	1.23	0.73	1.13	0.69	1.03	0.68	0.95	0.66	0.86	0.64	0.79	0.62			
OC331-MS-H18	20	2.43	0.71	2.27	0.70	2.11	0.68	1.93	0.65	1.76	0.64	1.59	0.63	1.45	0.62	1.31	0.60			OGT
	30	2.02	0.80	1.89	0.78	1.76	0.76	1.60	0.72	1.46	0.70	1.32	0.68	1.20	0.66	1.08	0.64			
	40	1.62	0.89	1.51	0.86	1.40	0.83	1.28	0.79	1.16	0.77	1.05	0.74	0.95	0.71	0.85	0.68			
OC331-MS-H29	20	3.96	1.04	3.70	1.02	3.43	0.99	3.13	0.95	2.84	0.93	2.57	0.90	2.32	0.88	2.09	0.85			OGT
	30	3.28	1.18	3.06	1.14	2.83	1.11	2.58	1.05	2.33	1.02	2.11	0.98	1.90	0.95	1.71	0.91			
	40	2.60	1.31	2.42	1.26	2.24	1.22	2.03	1.15	1.83	1.11	1.65	1.06	1.48	1.02	1.32	0.97			
OC331-MS-H32	20	4.29	1.16	4.01	1.14	3.73	1.11	3.41	1.06	3.11	1.03	2.83	1.01	2.57	0.98	2.33	0.95			OGT
	30	3.58	1.31	3.35	1.27	3.11	1.24	2.84	1.18	2.59	1.14	2.35	1.11	2.13	1.07	1.93	1.03			
	40	2.87	1.46	2.68	1.41	2.49	1.36	2.27	1.29	2.06	1.25	1.87	1.20	1.69	1.16	1.53	1.1			
OC331-MS-H41	20	5.56	1.70	5.20	1.66	4.84	1.61	4.42	1.54	4.03	1.50	3.67	1.46	3.33	1.42	3.01	1.38			OGT
	30	4.67	1.87	4.36	1.82	4.06	1.77	3.70	1.68	3.37	1.63	3.06	1.58	2.77	1.53	2.50	1.48			
	40	3.78	2.05	3.52	1.99	3.27	1.92	2.98	1.82	2.70	1.76	2.45	1.70	2.21	1.64	1.98	1.58			
OC331-MS-H56	20	7.65	2.09	7.15	2.04	6.65	1.99	6.06	1.91	5.52	1.86	5.01	1.81	4.54	1.77	4.11	1.72			OGT
	30	6.32	2.35	5.90	2.27	5.48	2.20	4.99	2.09	4.53	2.02	4.10	1.95	3.70	1.88	3.33	1.81			
	40	5.00	2.60	4.66	2.51	4.31	2.41	3.91	2.27	3.53	2.18	3.18	2.09	2.85	2.00	2.55	1.90			
OC331-MS-H82	20	11.11	3.39	10.40	3.31	9.68	3.23	8.84	3.08	8.06	3.00	7.33	2.92	6.65	2.84	6.03	2.76			OGT
	30	9.33	3.74	8.72	3.64	8.11	3.54	7.40	3.37	6.73	3.27	6.11	3.17	5.53	3.06	5.00	2.96			
	40	7.56	4.10	7.05	3.97	6.54	3.85	5.95	3.65	5.40	3.53	4.90	3.41	4.41	3.29	3.96	3.16			

MPG35% – Monopropylenglycol 35%

$Q_o$  – Cooling capacity, kW

$P$  – Power consumption, kW

OGT – Operation with heat transformer

$T_b^{in}$  – Brine inlet temperature,  $^\circ C$

$T_b^{out}$  – Brine outlet temperature,  $^\circ C$

$T_w^{in}$  – Water inlet temperature,  $^\circ C$

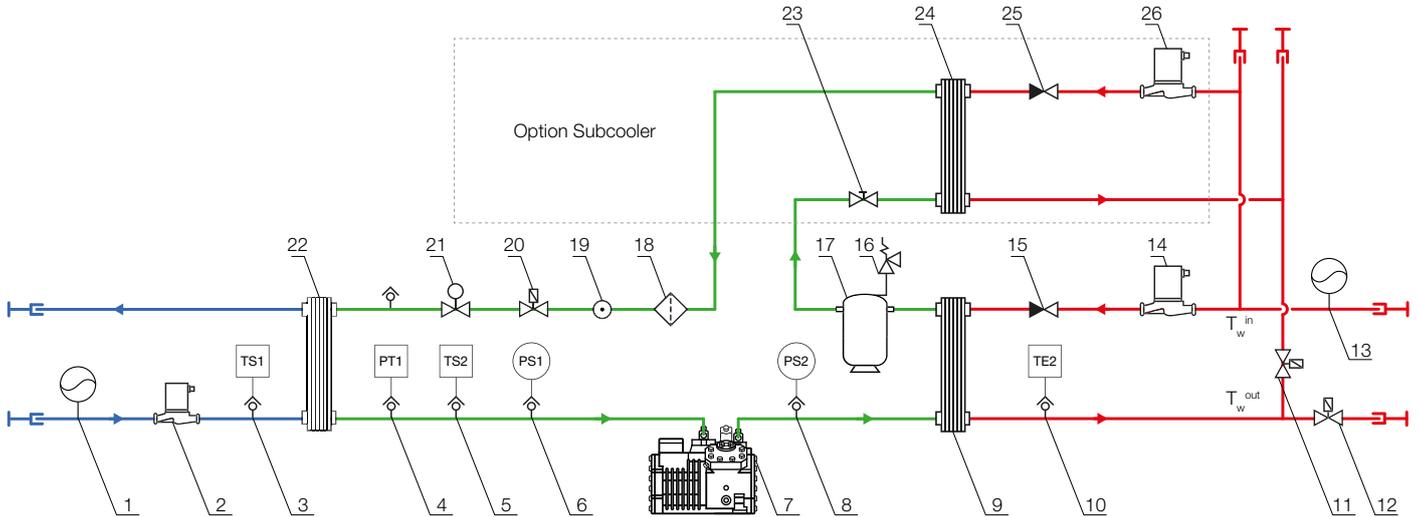
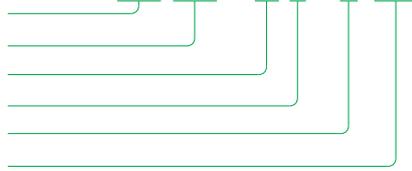
$T_w^{out}$  – Water outlet temperature,  $^\circ C$

# R513A Heat-transformer

## OC 341 - H S - E 129

- OC – Chiller
- 341
- H – High temperature
- S – Standard
- E – Semi-hermetic reciprocating
- 129 – Cooling capacity [kW]\*10

- Type of unit
- Model range
- Temperature range
- Climatic execution
- Compressor type
- Capacity



- 1 - Expansion vessel
- 2 - Circulating pump
- 3 - Temperature sensor
- 4 - Pressure sensor for EEV
- 5 - Temperature sensor for EEV
- 6 - Low pressure switch
- 7 - Compressor
- 8 - High pressure switch
- 9 - Water cooled condenser
- 10 - Temperature sensor
- 11 - Solenoid valve for dry cooler
- 12 - Solenoid valve for heating loop

- 16 - Safety valve
- 17 - Liquid receiver
- 18 - Filter drier
- 19 - Sight glass with moisture indicator
- 20 - Solenoid valve
- 21 - Electronic expansion valve
- 22 - Plate evaporator

- Option Subcooler
  - 23 - Outlet shut-off valve
  - 24 - Subcooler
  - 25 - Check valve
  - 26 - Circulating pump

Models	Hot water flow	Coolant flow	Oil charge	Max. operating current	Starting current	Receiver volume	Expansion vessel 1	Expansion vessel 13	Sound pressure level	Chilled loop	Heating loop	Dry Cooler loop	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	m <sup>3</sup> /h	l.	A	A	l.	l.	l.	dB (A)	inch	inch	inch	mm	mm	mm	kg	kg
OC341-HS-E129	2.82	2.30	1.0	6.1	25.5	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	700	13
OC341-HS-E258	5.57	4.64	2.0	10.8	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	750	13
OC341-HS-E323	7.00	5.80	2.0	13.6	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	800	13
OC341-HS-E390	8.40	6.98	2.0	16.5	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	850	13
OC341-HS-E477	10.29	8.57	2.0	20.2	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	900	13
OC341-HS-E559	11.94	10.06	2.6	28.2	81.0 / 132.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1000	20
OC341-HS-E661	14.14	11.89	2.6	33.2	97.0 / 158.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1100	20
OC341-HS-E780	16.80	13.97	4.0	2 x 16.5	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1200	25
OC341-HS-E954	20.58	17.14	4.0	2 x 20.2	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1300	25
OC341-HS-E1118	23.88	20.11	5.2	2 x 28.2	2 x 81.0 / 2 x 132.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1500	25
OC341-HS-E1322	28.28	23.78	5.2	2 x 33.2	2 x 92.0 / 2 x 158.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1600	25

Compressor Semi-hermetic reciprocating

Power supply ~3-380V-50Hz



$T_w^{in} / T_w^{out}, ^\circ C$	30 / 35 °C				35 / 40 °C				40 / 45 °C				45 / 50 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	15.14	15.45	2.87	18.01	14.04	15.10	3.13	17.17	12.98	14.79	3.38	16.36	11.62	14.49	3.62	15.24
OC341-HS-E258	30.54	31.16	5.20	35.74	28.34	30.50	5.71	34.05	26.15	29.81	6.18	32.33	23.94	29.06	10.07	34.02
OC341-HS-E323	37.93	38.63	6.54	44.47	35.32	37.93	7.26	42.58	32.71	37.24	7.92	40.63	30.14	36.54	8.53	38.66
OC341-HS-E390	45.94	46.81	7.74	53.68	42.63	45.94	8.53	51.16	39.50	45.07	9.26	48.75	36.19	44.02	9.92	46.11
OC341-HS-E477	56.03	57.25	9.45	65.48	52.20	56.20	10.44	62.64	48.37	55.16	11.38	59.75	44.54	53.94	12.27	56.81
OC341-HS-E559	66.08	67.34	10.40	76.48	61.46	66.08	11.56	73.02	56.70	64.68	12.63	69.33	52.08	63.14	12.74	64.82
OC341-HS-E661	77.70	79.38	12.33	90.03	72.38	77.98	13.73	86.11	67.06	76.44	15.04	82.10	61.74	74.90	16.21	77.95
OC341-HS-E780	91.87	93.61	15.49	107.36	85.26	91.87	17.05	102.31	79.00	90.13	18.51	97.51	72.38	88.04	19.84	92.22
OC341-HS-E954	112.06	114.49	18.90	130.95	104.40	112.40	20.88	125.28	96.74	110.32	22.76	119.50	89.09	107.88	24.53	113.62
OC341-HS-E1118	132.16	134.68	20.80	152.96	122.92	132.16	23.13	146.05	113.40	129.36	25.26	138.66	104.16	126.28	25.48	129.64
OC341-HS-E1322	155.40	158.76	24.67	180.07	144.76	155.96	27.47	172.23	134.12	152.88	30.07	164.19	123.48	149.80	32.42	155.90

$T_w^{in} / T_w^{out}, ^\circ C$	50 / 55 °C				55 / 60 °C				60 / 65 °C				65 / 70 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	10.93	14.22	3.85	14.77	9.94	13.94	4.07	14.01	8.84	13.75	4.28	13.12	7.83	13.50	4.48	12.31
OC341-HS-E258	21.75	28.28	6.96	28.71	19.54	27.44	7.27	26.81	17.09	26.54	7.52	24.61	14.84	25.61	7.75	22.59
OC341-HS-E323	27.72	35.84	9.10	36.82	24.97	35.15	9.64	34.61	22.11	34.39	10.10	32.21	19.45	33.57	10.54	30.00
OC341-HS-E390	32.99	42.98	10.51	43.50	29.75	41.76	11.05	40.80	26.14	40.57	11.48	37.62	22.83	39.35	11.88	34.72
OC341-HS-E477	40.54	52.72	13.07	53.61	36.71	51.50	13.78	50.49	32.39	50.31	14.41	46.80	28.38	48.91	15.01	43.39
OC341-HS-E559	47.32	61.60	14.43	61.75	42.70	59.92	15.16	57.86	37.24	57.89	15.74	52.98	32.40	55.91	16.28	48.68
OC341-HS-E661	56.42	73.36	17.29	73.71	50.96	71.68	18.23	69.19	44.85	69.71	18.97	63.82	39.16	67.68	19.68	58.84
OC341-HS-E780	65.98	85.96	21.02	87.00	59.51	83.52	22.10	81.61	52.29	81.14	22.96	75.25	45.67	78.70	23.77	69.44
OC341-HS-E954	81.08	105.44	26.13	107.22	73.43	103.01	27.56	100.99	64.78	100.61	28.82	93.60	56.76	97.83	30.01	86.77
OC341-HS-E1118	94.64	123.20	28.87	123.51	85.40	119.84	30.32	115.72	74.48	115.77	31.48	105.96	64.80	111.83	32.55	97.35
OC341-HS-E1322	112.84	146.72	34.58	147.42	101.92	143.36	36.46	138.38	89.69	139.42	37.94	127.63	78.33	135.35	39.36	117.68

$Q_0$  – cooling capacity

$Q_{osc}$  – cooling capacity including subcooler

P – power consumption

$Q_c$  – condensing capacity (heating capacity)

Evaporator

Coolant water

Inlet temperature +25°C

Outlet temperature +20°C

Condenser

Heating water

$T_w^{in}$  – Water inlet temperature, °C

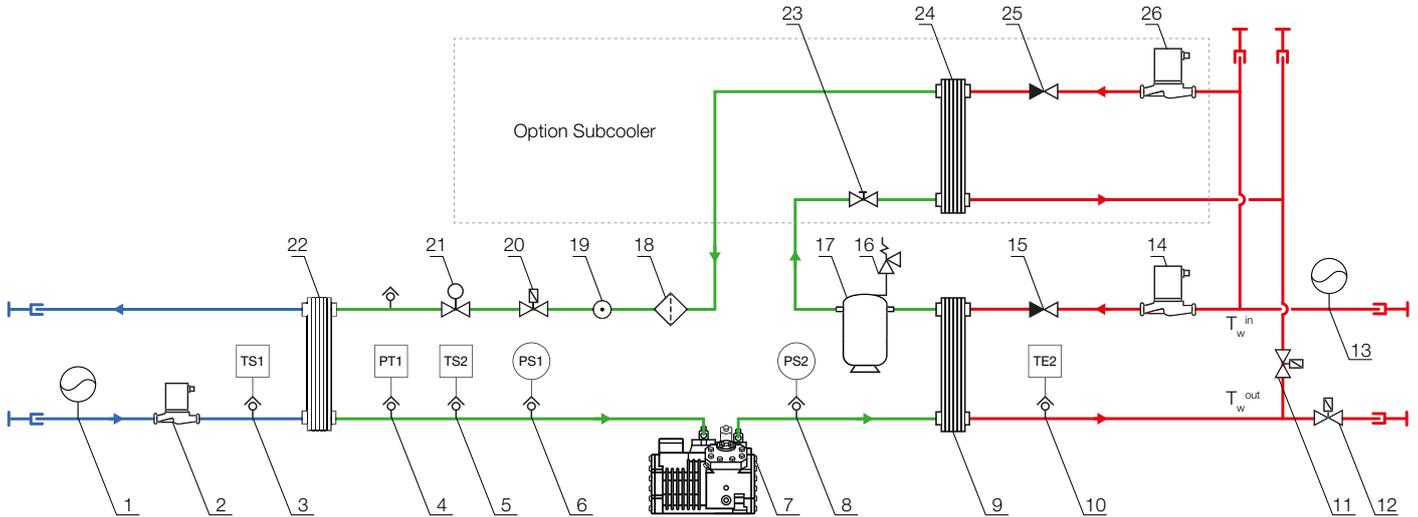
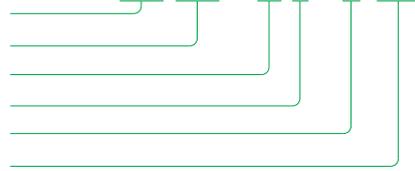
$T_w^{out}$  – Water outlet temperature, °C

# R450A Heat-transformer

## OC 341 - H S - E 129

OC – Chiller  
 341  
 H – High temperature  
 S – Standard  
 E – Semi-hermetic reciprocating  
 129 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity



- 1 - Expansion vessel
- 2 - Circulating pump
- 3 - Temperature sensor
- 4 - Pressure sensor for EEV
- 5 - Temperature sensor for EEV
- 6 - Low pressure switch
- 7 - Compressor
- 8 - High pressure switch
- 9 - Water cooled condenser
- 10 - Temperature sensor
- 11 - Solenoid valve for dry cooler
- 12 - Solenoid valve for heating loop

- 16 - Safety valve
- 17 - Liquid receiver
- 18 - Filter drier
- 19 - Sight glass with moisture indicator
- 20 - Solenoid valve
- 21 - Electronic expansion valve
- 22 - Plate evaporator

- Option Subcooler
- 23 - Outlet shut-off valve
  - 24 - Subcooler
  - 25 - Check valve
  - 26 - Circulating pump

Models	Hot water flow	Coolant flow	Oil charge	Max. operating current	Starting current	Receiver volume	Expansion vessel 1	Expansion vessel 13	Sound pressure level	Chilled loop	Heating loop	Dry Cooler loop	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	m <sup>3</sup> /h	l.	A	A	l.	l.	l.	dB (A)	inch	inch	inch	mm	mm	mm	kg	kg
OC341-HS-E129	2.82	2.30	1.0	6.1	25.5	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	700	13
OC341-HS-E258	5.57	4.64	2.0	10.8	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	750	13
OC341-HS-E323	7.00	5.80	2.0	13.6	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	800	13
OC341-HS-E390	8.40	6.98	2.0	16.5	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	850	13
OC341-HS-E477	10.29	8.57	2.0	20.2	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	900	13
OC341-HS-E559	11.94	10.06	2.6	28.2	81.0 / 132.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1000	20
OC341-HS-E661	14.14	11.89	2.6	33.2	97.0 / 158.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1100	20
OC341-HS-E780	16.80	13.97	4.0	2 x 16.5	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1200	25
OC341-HS-E954	20.58	17.14	4.0	2 x 20.2	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1300	25
OC341-HS-E1118	23.88	20.11	5.2	2 x 28.2	2 x 81.0 / 2 x 132.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1500	25
OC341-HS-E1322	28.28	23.78	5.2	2 x 33.2	2 x 92.0 / 2 x 158.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1600	25

Compressor Semi-hermetic reciprocating

Power supply ~3-380V-50Hz



$T_w^{in} / T_w^{out}, °C$	30 / 35 °C				35 / 40 °C				40 / 45 °C				45 / 50 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	12.89	13.14	2.44	15.33	12.02	12.84	2.68	14.70	11.17	12.56	2.89	14.06	10.37	12.30	3.10	13.47
OC341-HS-E258	25.98	26.47	4.42	30.40	24.22	25.87	4.85	29.08	22.46	25.25	5.27	27.74	20.72	24.60	5.64	26.36
OC341-HS-E323	32.28	32.87	5.53	37.81	30.21	32.28	6.14	36.35	28.17	31.67	6.72	34.89	26.13	31.02	7.24	33.37
OC341-HS-E390	39.15	39.85	6.56	45.71	36.54	38.98	7.24	43.78	33.93	38.11	7.86	41.79	31.39	37.24	8.46	39.85
OC341-HS-E477	47.68	48.55	7.99	55.66	44.72	47.68	8.84	53.56	41.59	46.81	9.66	51.24	38.45	45.76	10.41	48.86
OC341-HS-E559	56.14	57.26	8.92	65.06	52.50	56.00	9.91	62.41	48.72	54.74	10.81	59.53	45.08	53.48	11.62	56.70
OC341-HS-E661	66.22	67.34	10.57	76.79	61.88	66.08	11.75	73.63	57.68	64.82	12.85	70.53	53.48	63.42	13.79	67.27
OC341-HS-E780	78.30	79.69	13.12	91.42	73.08	77.95	14.48	87.56	67.86	76.21	15.73	83.59	62.78	74.47	16.91	79.69
OC341-HS-E954	95.35	97.09	15.97	111.33	89.44	95.35	17.68	107.11	83.17	93.61	19.31	102.49	76.91	91.52	20.81	97.72
OC341-HS-E1118	112.28	114.52	17.84	130.12	105.00	112.00	19.82	124.82	97.44	109.48	21.62	119.06	90.16	106.96	23.24	113.40
OC341-HS-E1322	132.44	134.68	21.14	153.58	123.76	132.16	23.49	147.25	115.36	129.64	25.70	141.06	106.96	126.84	27.58	134.54

$T_w^{in} / T_w^{out}, °C$	50 / 55 °C				55 / 60 °C				60 / 65 °C				65 / 70 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	9.57	12.06	3.29	12.86	8.80	11.81	3.48	12.28	8.06	11.56	3.64	11.70	7.32	11.34	3.82	11.14
OC341-HS-E258	18.98	23.91	5.95	24.93	17.26	23.16	6.23	23.49	15.58	22.31	6.40	21.98	13.89	21.51	6.60	20.49
OC341-HS-E323	24.13	30.38	7.73	31.86	22.13	29.70	8.18	30.31	20.17	28.90	8.59	28.76	18.20	28.19	8.99	27.19
OC341-HS-E390	28.85	36.37	8.98	37.83	26.33	35.32	9.45	35.77	23.85	34.10	9.77	33.61	21.36	33.04	10.13	31.49
OC341-HS-E477	35.50	44.72	11.10	46.60	32.50	43.67	11.73	44.23	29.54	42.29	12.26	41.80	26.55	41.07	12.79	39.34
OC341-HS-E559	41.30	52.08	12.35	53.65	37.66	50.54	12.98	50.64	33.97	48.66	13.39	47.36	30.31	46.95	13.88	44.19
OC341-HS-E661	49.28	62.02	14.77	64.05	45.08	60.48	15.57	60.65	40.90	58.60	16.14	57.04	36.64	56.83	16.78	53.42
OC341-HS-E780	57.70	72.73	17.96	75.66	52.65	70.64	18.90	71.55	47.69	68.21	19.53	67.22	42.73	66.08	20.26	62.99
OC341-HS-E954	70.99	89.44	22.20	93.19	65.01	87.35	23.46	88.46	59.08	84.57	24.52	83.61	53.11	82.15	25.58	78.69
OC341-HS-E1118	82.60	104.16	24.70	107.30	75.32	101.08	25.96	101.28	67.93	97.32	26.78	94.71	60.63	93.90	27.75	88.38
OC341-HS-E1322	98.56	124.04	29.54	128.10	90.16	120.96	31.14	121.30	81.81	117.20	32.28	114.09	73.29	113.66	33.55	106.84

$Q_0$  – cooling capacity  
 $Q_{osc}$  – cooling capacity including subcooler  
 P – power consumption  
 $Q_c$  – condensing capacity (heating capacity)

Evaporator  
 Coolant water  
 Inlet temperature +25°C  
 Outlet temperature +20°C

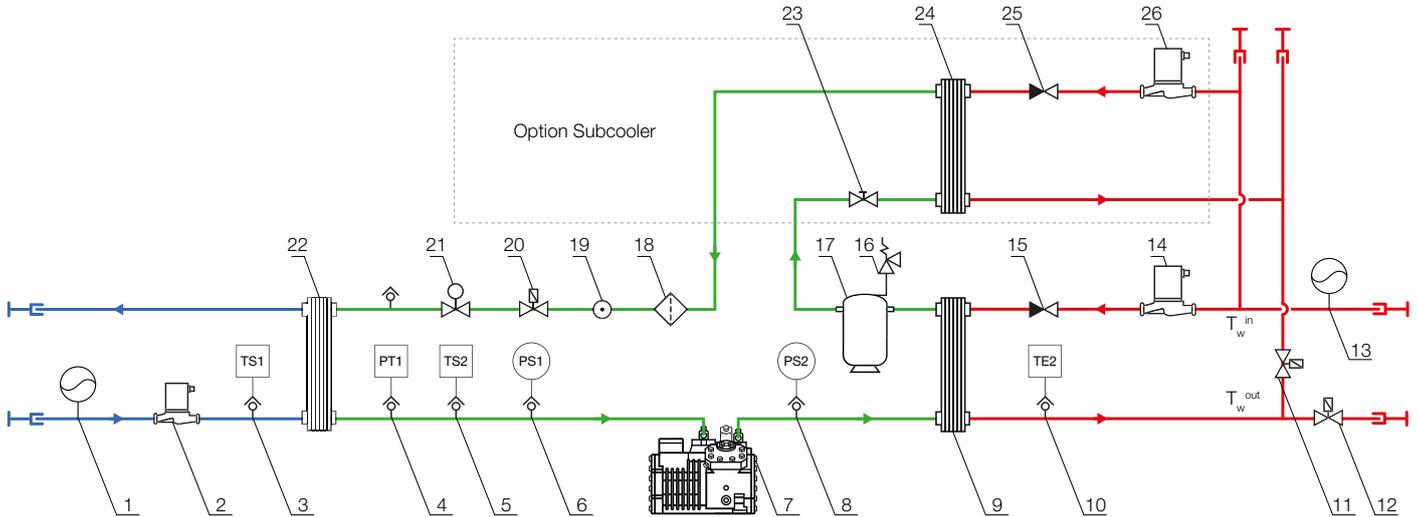
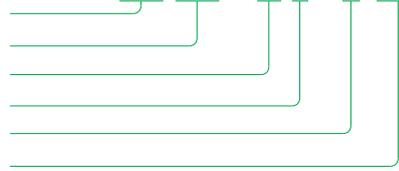
Condenser  
 Heating water  
 $T_w^{in}$  – Water inlet temperature, °C  
 $T_w^{out}$  – Water outlet temperature, °C

# R134a Heat-transformer

## OC 341 - H S - E 129

OC – Chiller  
 341  
 H – High temperature  
 S – Standard  
 E – Semi-hermetic reciprocating  
 129 – Cooling capacity [kW]\*10

Type of unit  
 Model range  
 Temperature range  
 Climatic execution  
 Compressor type  
 Capacity



- 1 - Expansion vessel
- 2 - Circulating pump
- 3 - Temperature sensor
- 4 - Pressure sensor for EEV
- 5 - Temperature sensor for EEV
- 6 - Low pressure switch
- 7 - Compressor
- 8 - High pressure switch
- 9 - Water cooled condenser
- 10 - Temperature sensor
- 11 - Solenoid valve for dry cooler
- 12 - Solenoid valve for heating loop

- 16 - Safety valve
- 17 - Liquid receiver
- 18 - Filter drier
- 19 - Sight glass with moisture indicator
- 20 - Solenoid valve
- 21 - Electronic expansion valve
- 22 - Plate evaporator

- Option Subcooler
- 23 - Outlet shut-off valve
  - 24 - Subcooler
  - 25 - Check valve
  - 26 - Circulating pump

Models	Hot water flow	Coolant flow	Oil charge	Max. operating current	Starting current	Receiver volume	Expansion vessel 1	Expansion vessel 13	Sound pressure level	Chilled loop	Heating loop	Dry Cooler loop	Length	Width	Height	Net weight	Refrigerant charge
	m <sup>3</sup> /h	m <sup>3</sup> /h	l.	A	A	l.	l.	l.	dB (A)	inch	inch	inch	mm	mm	mm	kg	kg
OC341-HS-E129	2.82	2.30	1.0	6.1	25.5	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	700	13
OC341-HS-E258	5.57	4.64	2.0	10.8	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	750	13
OC341-HS-E323	7.00	5.80	2.0	13.6	62.2	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	800	13
OC341-HS-E390	8.40	6.98	2.0	16.5	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	850	13
OC341-HS-E477	10.29	8.57	2.0	20.2	82.4	13.0	12.0	12.0	50	G2	G2	G2	1365	835	1580	900	13
OC341-HS-E559	11.94	10.06	2.6	28.2	81.0 / 132.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1000	20
OC341-HS-E661	14.14	11.89	2.6	33.2	97.0 / 158.0	20.0	12.0	24.0	52	G3	G3	G3	1800	835	1900	1100	20
OC341-HS-E780	16.80	13.97	4.0	2 x 16.5	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1200	25
OC341-HS-E954	20.58	17.14	4.0	2 x 20.2	2 x 82.4	25.0	24.0	35.0	53	G3	G3	G3	2200	835	1900	1300	25
OC341-HS-E1118	23.88	20.11	5.2	2 x 28.2	2 x 81.0 / 2 x 132.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1500	25
OC341-HS-E1322	28.28	23.78	5.2	2 x 33.2	2 x 92.0 / 2 x 158.0	25.0	35.0	50.0	55	G3	G3	G3	2200	835	1900	1600	25

Compressor Semi-hermetic reciprocating

Power supply ~3-380V-50Hz



$T_w^{in} / T_w^{out}, ^\circ C$	30 / 35 °C				35 / 40 °C				40 / 45 °C				45 / 50 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	14.76	15.02	2.75	17.50	13.76	14.69	2.99	16.76	12.81	14.37	3.24	16.04	11.88	14.08	3.46	15.35
OC341-HS-E258	29.72	30.26	4.99	34.71	27.74	29.60	5.48	33.22	25.75	28.88	5.92	31.67	23.79	28.15	6.32	30.10
OC341-HS-E323	36.89	37.58	6.28	43.17	34.57	36.89	6.96	41.53	32.28	36.19	7.59	39.86	30.00	35.50	8.18	38.18
OC341-HS-E390	44.72	45.41	7.43	52.15	41.76	44.54	8.18	49.94	38.98	43.67	8.87	47.85	36.02	42.63	9.52	45.54
OC341-HS-E477	54.64	55.51	9.07	63.70	51.16	54.46	10.02	61.18	47.68	53.42	10.93	58.60	44.20	52.37	11.76	55.96
OC341-HS-E559	64.26	65.38	9.98	74.24	60.06	64.12	11.09	71.15	55.86	62.72	12.11	67.97	51.66	61.18	13.02	64.68
OC341-HS-E661	75.74	77.00	11.82	87.56	70.84	75.60	13.17	84.01	66.08	74.20	14.41	80.49	61.32	72.66	15.55	76.87
OC341-HS-E780	89.44	90.83	14.86	104.30	83.52	89.09	16.36	99.88	77.95	87.35	17.75	95.70	72.04	85.26	19.04	91.07
OC341-HS-E954	109.27	111.01	18.13	127.40	102.31	108.92	20.04	122.36	95.35	106.84	21.85	117.21	88.39	104.75	23.52	111.92
OC341-HS-E1118	128.52	130.76	19.96	148.48	120.12	128.24	22.18	142.30	111.72	125.44	24.22	135.94	103.32	122.36	26.04	129.36
OC341-HS-E1322	151.48	154.00	23.63	175.11	141.68	151.20	26.35	168.03	132.16	148.40	28.81	160.97	122.64	145.32	31.11	153.75

$T_w^{in} / T_w^{out}, ^\circ C$	50 / 55 °C				55 / 60 °C				60 / 65 °C				65 / 70 °C			
	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$	$Q_0$	$Q_{sc}$	P	$Q_c$	$Q_0$	$Q_{osc}$	P	$Q_c$
Models	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
OC341-HS-E129	11.00	13.78	3.69	14.69	10.13	13.52	3.90	14.02	9.27	13.27	4.10	13.37	8.42	13.02	4.30	12.72
OC341-HS-E258	21.82	27.37	6.66	28.48	19.87	26.54	6.98	26.85	17.92	25.61	7.20	25.13	15.97	24.69	7.43	23.40
OC341-HS-E323	27.72	34.77	8.73	36.45	25.46	34.00	9.24	34.70	23.19	33.18	9.67	32.87	20.93	32.36	10.11	31.04
OC341-HS-E390	33.15	41.59	10.07	43.22	30.28	40.37	10.60	40.87	27.42	39.15	11.00	38.42	24.57	37.93	11.40	35.97
OC341-HS-E477	40.89	51.16	12.53	53.42	37.41	49.94	13.22	50.63	33.97	48.55	13.81	47.78	30.54	47.15	14.39	44.93
OC341-HS-E559	47.46	59.64	13.83	61.29	43.26	57.82	14.55	57.81	39.06	55.86	15.08	54.14	34.86	53.90	15.61	50.47
OC341-HS-E661	56.70	70.98	16.58	73.28	51.94	69.30	17.47	69.41	47.04	67.27	18.17	65.21	42.14	65.24	18.87	61.01
OC341-HS-E780	66.29	83.17	20.15	86.44	60.55	80.74	21.19	81.75	54.84	78.30	21.99	76.84	49.14	75.86	22.79	71.93
OC341-HS-E954	81.78	102.31	25.06	106.84	74.82	99.88	26.45	101.27	67.95	97.09	27.61	95.56	61.07	94.31	28.78	89.85
OC341-HS-E1118	94.92	119.28	27.66	122.58	86.52	115.64	29.09	115.61	78.12	111.72	30.16	108.28	69.72	107.80	31.22	100.94
OC341-HS-E1322	113.40	141.96	33.15	146.55	103.88	138.60	34.94	138.82	94.08	134.54	36.34	130.42	84.28	130.48	37.74	122.02

$Q_0$  – cooling capacity

$Q_{osc}$  – cooling capacity including subcooler

P – power consumption

$Q_c$  – condensing capacity (heating capacity)

Evaporator

Coolant water

Inlet temperature +25°C

Outlet temperature +20°C

Condenser

Heating water

$T_w^{in}$  – Water inlet temperature, °C

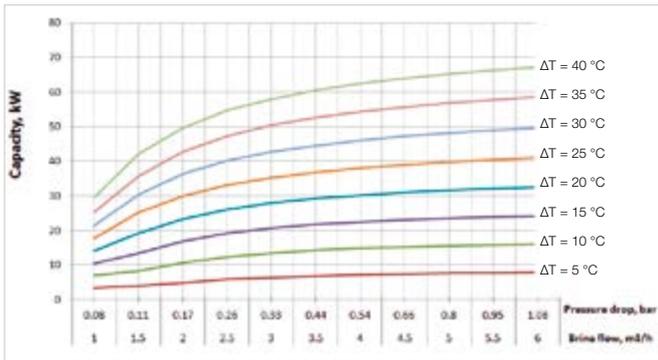
$T_w^{out}$  – Water outlet temperature, °C

# Dry Cooler Standard

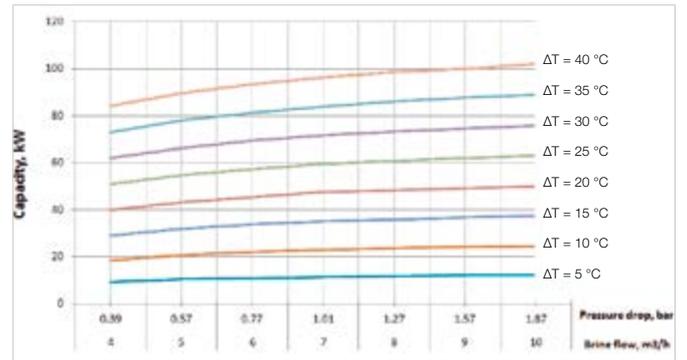
Models	Fan diameter	Number of fans	Fan type	Air flow	Power consumption	Noise level	Heat exchange surface	Internal volume
Standard	mm			m <sup>3</sup> /h	kW	dB	m <sup>2</sup>	l
OH521-150S1E-C21	500	1	EC	7 100	0.5	37	55.8	6.2
OH521-250S1E-C21	500	2	EC	14 100	1.0	40	111.7	12.4
OH521-350S1E-C21	500	3	EC	21 200	1.5	44	167.5	18.6
OH521-163S3E-E21	630	1	EC	9 800	0.7	38	124.1	13.8
OH521-263S3E-E21	630	2	EC	19 600	1.4	41	248.2	27.6
OH521-363S3E-E21	630	3	EC	29 400	2.1	44	372.3	41.4

Models	Length	Width	Height	Connections	Net weight
	mm	mm	mm	inch	kg
OH521-150E-C21	1090	940	965	G1"	60
OH521-250E-C21	2000	940	965	G1 1/2"	120
OH521-350E-C21	2900	940	965	G2"	180
OH521-163E-E21	1200	940	1220	G1 1/2"	115
OH521-263E-E21	2200	940	1220	G2"	230
OH521-363E-E21	3200	940	1220	G2"	345

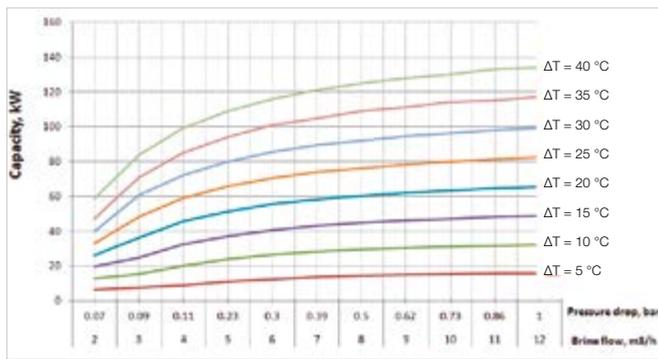




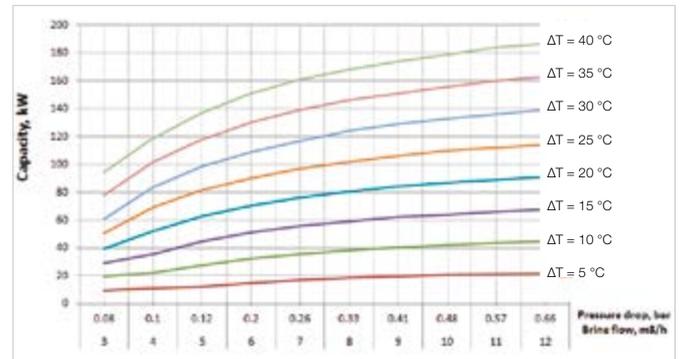
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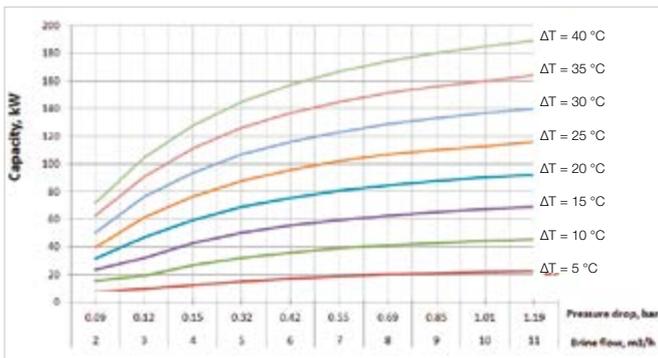
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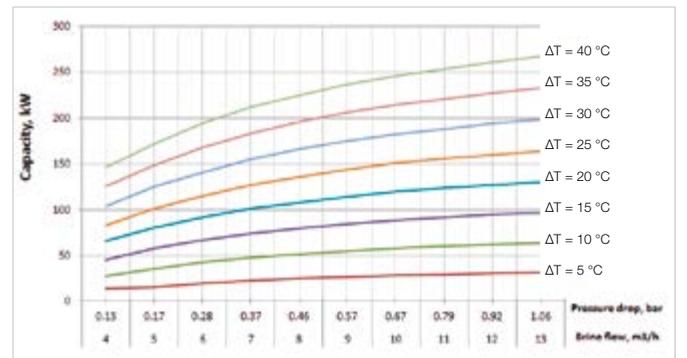
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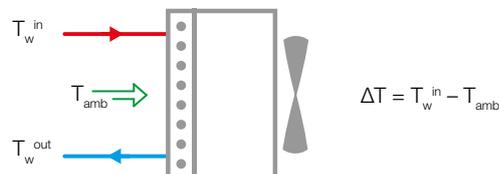
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OH521-350S1E-C21



OH521-363S3E-E21

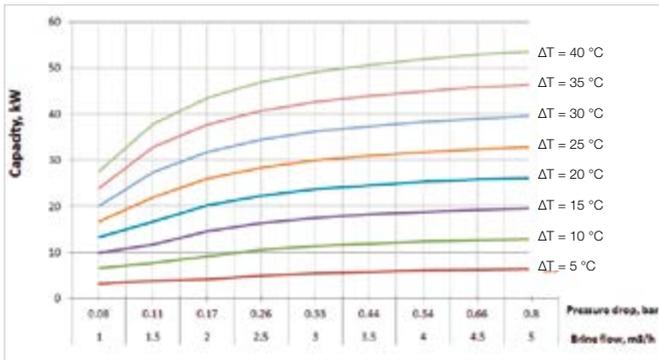


# Dry Cooler Quiet

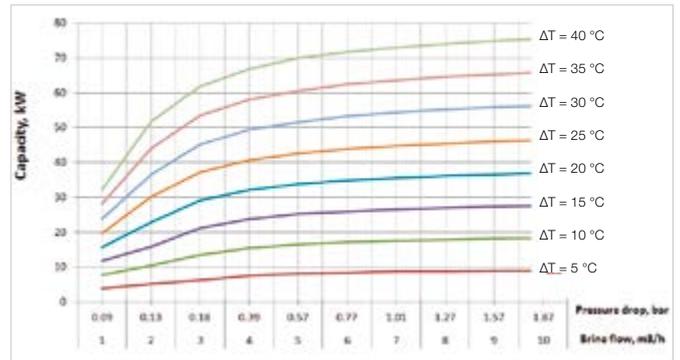
Models	Fan diameter	Number of fans	Fan type	Air flow	Power consumption	Noise level	Heat exchange surface	Internal volume
Quiet	mm			m <sup>3</sup> /h	kW	dB	m <sup>2</sup>	l
OH521-150Q1E-C21	500	1	EC	5 200	0.25	30	55.8	6.2
OH521-250Q1E-C21	500	2	EC	10 500	0.50	33	111.7	12.4
OH521-350Q1E-C21	500	3	EC	15 700	0.75	35	167.5	18.6
OH521-163Q1E-E21	630	1	EC	7 300	0.24	29	124.1	13.8
OH521-263Q1E-E21	630	2	EC	12 900	0.48	32	248.2	27.6
OH521-363Q1E-E21	630	3	EC	19 400	0.72	35	372.3	41.4

Models	Length	Width	Height	Connections	Net weight
	mm	mm	mm	inch	kg
OH521-150E-C21	1090	940	965	G1"	60
OH521-250E-C21	2000	940	965	G1 1/2"	120
OH521-350E-C21	2900	940	965	G2"	180
OH521-163E-E21	1200	940	1220	G1 1/2"	115
OH521-263E-E21	2200	940	1220	G2"	230
OH521-363E-E21	3200	940	1220	G2"	345

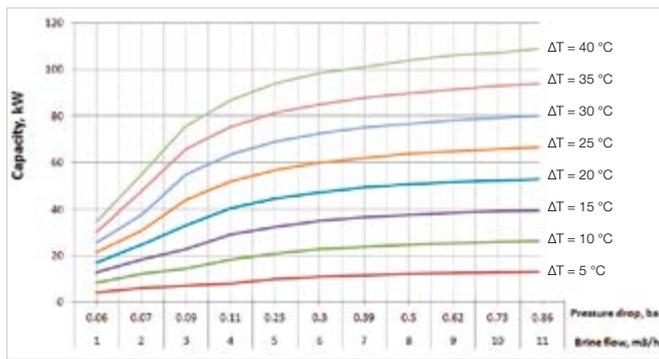




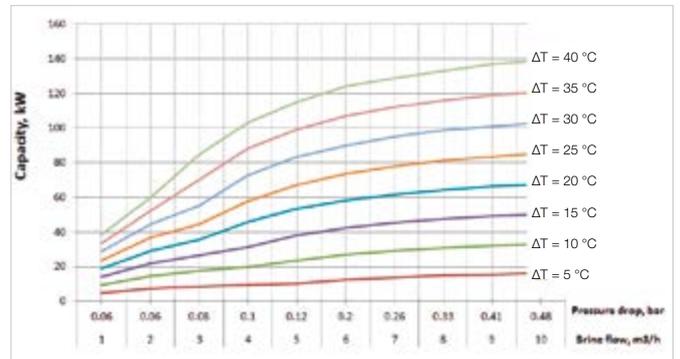
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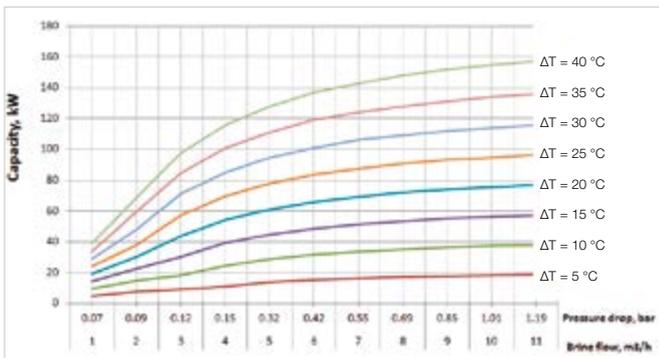
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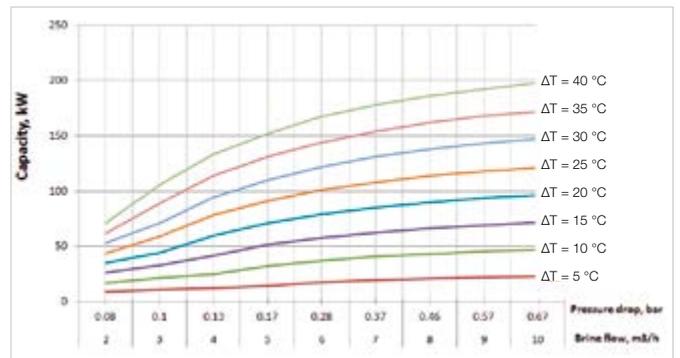
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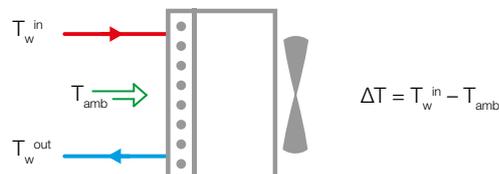
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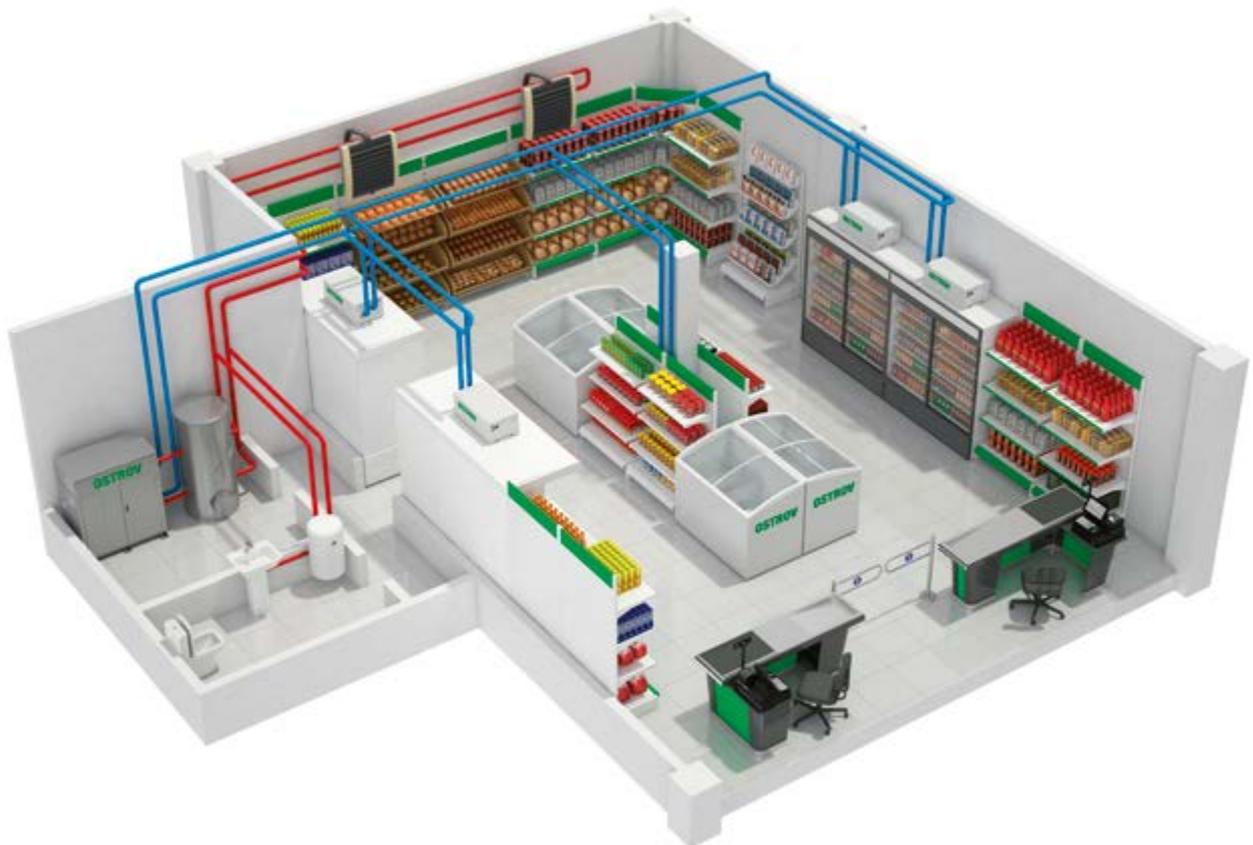


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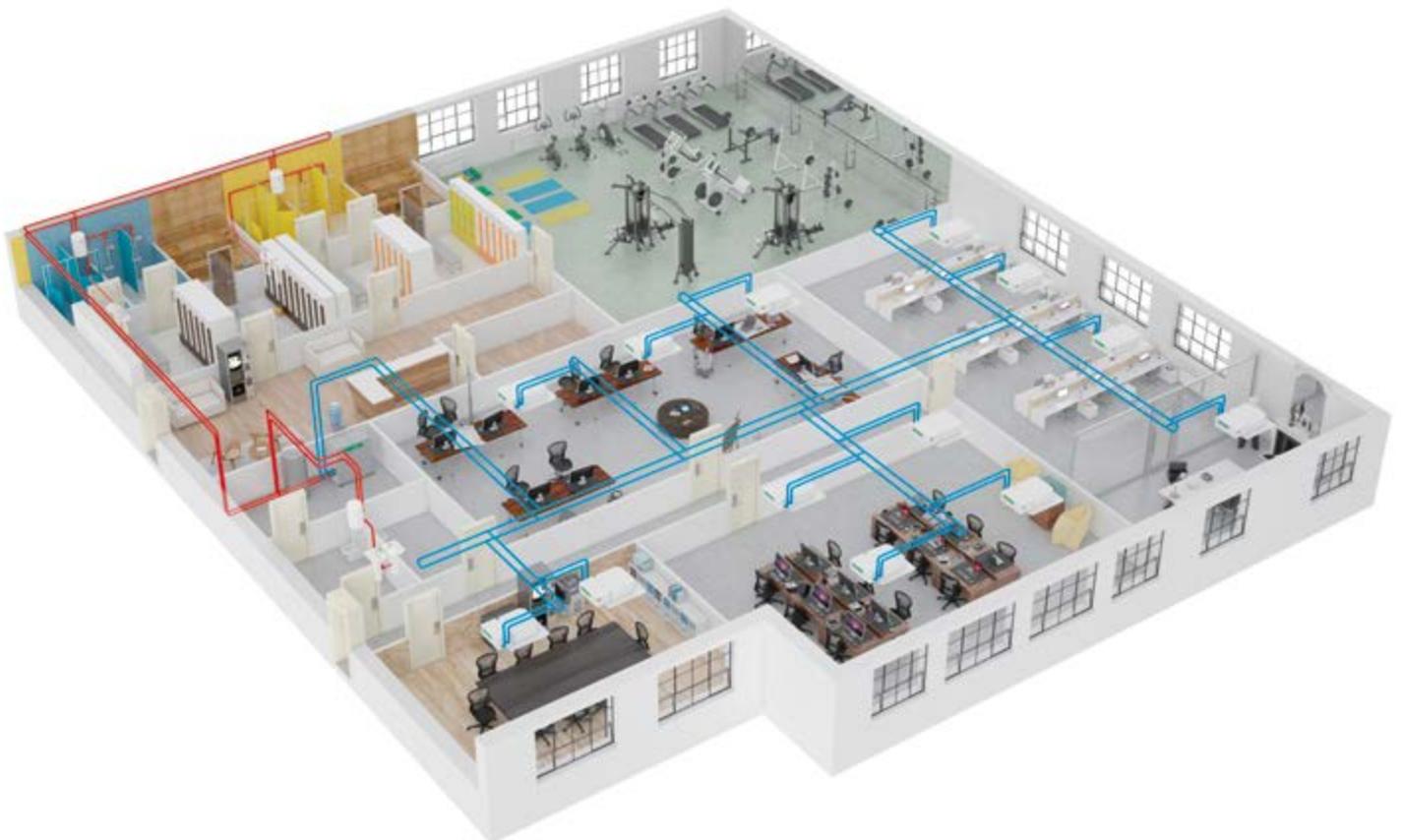


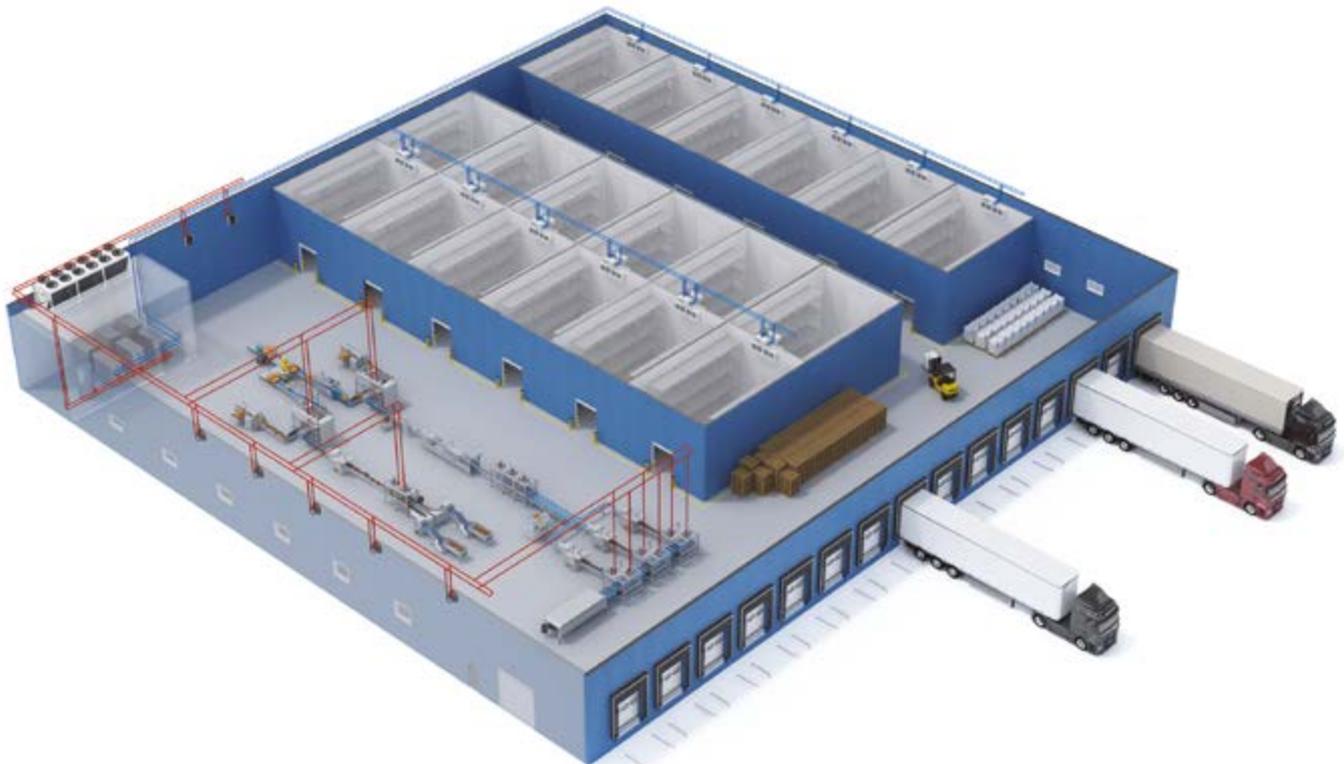












## Design of system consist of 6 steps:

- Step 1. Initial technical requirements for design formation
- Step 2. Condensing units selection
- Step 3. Heat transformer selection
- Step 4. Dry cooler selection
- Step 5. Calculation of collector's diameters
- Step 6. Summary list of equipment

### Step 1

OSTROV provides diagram of Ostrov Green Technology with all possible cold and heat consumers

\*.dwg version is located on the website <http://www.ostrovcomplete.com/ostrovgreentechnology.htm>

- 1. List of cold consumers
- 2. List of heat consumers.
- 3. Layout
- 4. Operation mode of heat transformer

### Step 2

Select condensing unit for each consumer according to technical data tables, mentioned in OGT catalogue, based on main parameters: boiling temperature, necessary cooling capacity and refrigerant type.

### Step 3

The main goal of heat transformer is to stabilize water temperature in waterloop. Total load on the heat transformer  $Q_0$  (necessary cooling capacity) equals summary of condensing heat removed of all condensing units  $Q_{c\Sigma}$ .

### Step 4

Select dry cooler based on the following conditions:

- 1. Ambient temperature
- 2. Coolant temperature at the inlet to dry cooler
- 3. Noise level during the operation of the dry cooler
- 4. Location place for the dry cooler

### Step 5

Select collectors diameters from the table listed in the catalog for the OGT system.

Cooling capacity	kW	8.0	12.0	20.0	32.0	50.0	80.0	120.0	160.0	240.0	310.0	390.0
Pipe diameter	mm	20.0	25.0	32.0	40.0	50.0	63.0	75.0	90.0	110.0	125.0	140.0
Water flow	m <sup>3</sup> /h	1.4	2.1	3.5	5.4	8.5	14.0	20.0	28.0	42.0	54.0	68.0
Pressure drop	kPa/m	2.1	1.5	1.2	1.0	0.8	0.7	0.6	0.5	0.4	0.3	0.3

### Step 6

Prepare summary list of selected equipment for ordering and preparing a construction task.

## Complete information at ostrov.com



### Data sheets

Complete technical data for each model.



### CAD Drawings

General view drawings. PDF & DWG format.



### 3D Models

3D models. DWG format. 1:1 scale.



### Wiring diagrams

Schemes of electrical connections.



### Price list

Current price list.



### Operating instructions

Detailed instructions for installation and operation.



### Package

Dimensions and weights of packed products.



### Selection guide

Easy way to select OGT units. Useful application information.



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