

How to Order

HAW 22 - 14

Basic size

Symbol	Applicable air compressor kW	Screw type	Reciprocating type
2	2.2		
7	7.5		
22	22		15
37	37		22
55	55		37
75	75		55
110	110		75

Accessory (Option)

Symbol	Description
Nil	—
F	With screw flange
D	With auto drain

Port size

Symbol	Size	Applicable model
04	Rc 1/2	HAW2
06	Rc 3/4	HAW7
14	Rc 1 1/2	HAW22, 37
20	Rc 2	HAW55, 75
30	3B JIS 10K FF flange	HAW110

How to Calculate Outlet Air Temperature

Outlet air temperature can be calculated with inlet air temperature, cooling water temperature and amount of air in the following procedure.

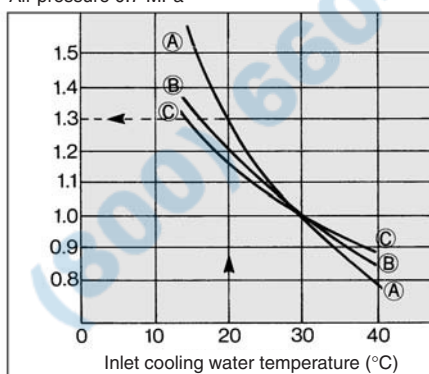
(Example) Inlet air temperature: 100°C, Cooling water temperature: 20°C, Cooling water flow: 17 l/min
Air flow: 2000 l/min (ANR), Air pressure: 0.7 MPa, Model: HAW22-14

Outlet air temperature at above conditions

- Use outlet air temperature of 37°C from outlet air temperature table. At this time correction factor line becomes A.
- To get correction factor of 1.3 use cooling water temperature correction factor A at 20°C.
- To get outlet air temperature divide 37°C from (1) by 1.3 from (2).
Outlet air temperature = 37 / 1.3 = 28.5°C

Correction Factor by Cooling Water Temperature

Air pressure 0.7 MPa



Outlet Air Temperature

Model	Cooling water (l/min)	Correction factor	Air flow (l/min (ANR))	Inlet air temperature			
				50°C	70°C	100°C	180°C
HAW2	5	(A)	200	35.5	38.5	41.5	—
		(B)	300	36	40	43	—
		(C)	400	36.5	42	45.5	—
HAW7	5	(A)	500	33.5	36	37	—
		(B)	1000	36	40	43	—
		(C)	1500	38	45.5	49.5	—
HAW22	17	(A)	2000	33.5	36	37	37.5
		(B)	3300	36	40	43	47
		(C)	4000	36.5	42.5	45.5	51
HAW37	25	(A)	4000	33.5	36	37	38
		(B)	5700	35	40	42	44.5
		(C)	7000	36	41	43.5	48
HAW55	36	(A)	7000	34.5	38	40	43
		(B)	8600	36	40	44	49
		(C)	10000	37	42.5	46	54
HAW75	40	(A)	10000	34.5	38	39.5	42
		(B)	12000	35.5	40	43	47
		(C)	14000	36	41.5	44.5	49.5
HAW110	45	(A)	15000	34.5	39	41	45
		(B)	18000	35.5	40	43	48.5
		(C)	20000	36	42.5	45.5	52

Conditions: • Air pressure 0.7 MPa, Cooling water temperature 30°C.

• Inlet air temperature 50°C is saturated air. At 70°C or more, it is humid air with dew point 67°C.

⚠ Precautions

Be sure to read before handling. Refer to front matters 42 and 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Caution on Design

⚠ Warning

- If the supply of coolant water is disrupted, the system will overheat, creating a dangerous situation. Therefore, make sure to take safety measures against water failure.
- An excess or insufficient flow of coolant water can damage the heat exchanger tube. Therefore, design within the rated water flow range (refer to the model column).

⚠ Caution

- Design the piping for coolant water and compressed air with a bore that is greater than the bore of the piping connections.
- The quality of the coolant water to be used must exceed the water quality that has been specified by the Japan Refrigeration and Air Conditioning Industry Association. (Refer to the instruction manual.) Poor quality coolant water damages the heat exchanger and reduces performance. Therefore, inspect the water quality and replace the circulating water on a regular basis.
- Never use sea water for cooling.

Mounting

⚠ Caution

- Install the unit horizontal with pipe line.
- Make sure to correctly connect the compressed air inlet/outlet and the coolant water inlet/outlet.
- Use union joints to connect the coolant water pipes so that they can be easily removed during maintenance.
- Connect a drain pipe because a large amount of drainage is created when the compressed air is cooled. The drain pipe must have a minimum pipe bore of 10 mm, and a maximum length of 5 m (when installing an optional auto drain).

Maintenance

⚠ Caution

- Inspect the quality of the coolant water and replace the circulating water on a regular basis. If the coolant water is cooled in a cooling tower, it is susceptible to the adhesion of water scale.
- If there is a likelihood that the coolant water will be frozen, drain the coolant water to prevent damage. Also, drain the coolant water when the equipment will not be used for a long period of time.
- If the cooling performance has been reduced, clean the inside of the coolant water pipes. (Refer to the instruction manual for details on the cleaning.)