GEM Orion Machinery (P) Ltd.
An Indo Japan Joint Venture Company

Air Cooled Chillers
with Built-In Water Tank

Striving to Make Products that Move You

ORION

Now Offering Japanese Quality at Affordable Prices!

GKL7500A-V

GKL5500A-V

JAPAN QUALITY

ORION brings you chillers made with world-renowned Japanese quality.

Japanese Quality JPN India Made in India

ORION chillers have a solid reputation and superior reliability among industrial chillers. Production has started in India that inherits quality Japanese manufacturing. We aim to offer this quality along with improved affordability and speedier order fulfillment.

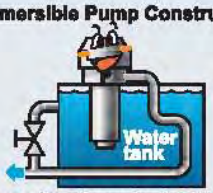
Features

1 Japanese Design Ensures High Reliability

Our chiller is designed with a large water tank for convenient operation. We've adopted a immersion pump design which goes a long way to alleviate bigger troubles such as water leaks, etc. Of course, the primary components are identical to those used in our Japanese manufactured chillers.

Previous Construction

Submersible Pump Construction



If by some chance the pump does leak, the leakage would occur inside the tank, thus preventing flooding.

2 Over 200,000 Units Shipped!

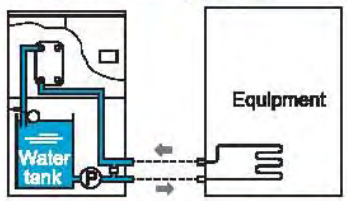
Orion has shipped over 200,000 chillers to satisfied customers not only in Japan, but all around the world.

3 Built-In Water Tank and Pump

The water tank and pump are built in, so you don't have to deal with troublesome wiring or piping.

About the chiller with water tank (Closed-loop systems)

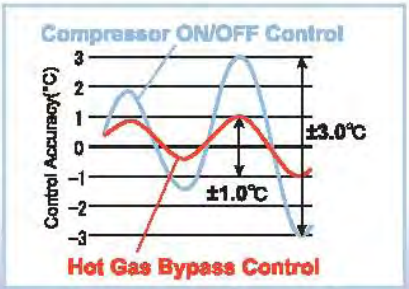
ORION Built-In Water Tank Chillers come with the water tank and discharge pump built in. Using a closed-loop system makes for easy installation, requiring only piping connections to the main chiller, and also takes up less space.



4 Temperature Control Accuracy to ±1.0 °C.

HB (Hot Gas Bypass) control gives control precision to ±1.0 °C.

* Excluding times of compressor on-off control or during times of changing load.



5 Compact Design Makes Replacement a Snap!

A 22 % reduction in size compared with our previous models.
As the cooling and water pressure performance of these chillers are the same as with ORION's Japanese made models, they can be substituted as is.

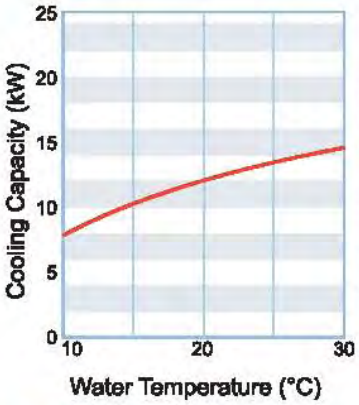
Comparison of RKE5500A-V and AKL5500A-V

* 1. Size comparison with casters removed.
* 2. Note that installation related dimensions are not compatible.

Cooling Capacity Diagram

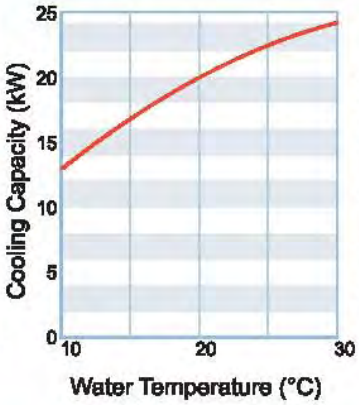
【GKL3750A-V】

Chilled Liquid : Water Ambient Temperature : 32℃
Flow Rate : 37L/min



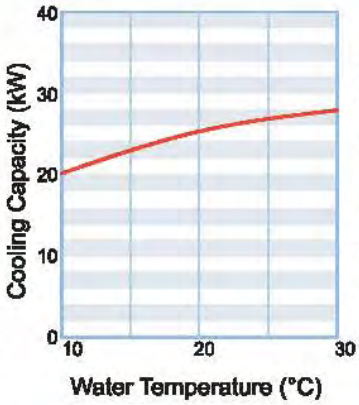
【GKL5500A-V】

Chilled Liquid : Water Ambient Temperature : 32℃
Flow Rate : 68L/min



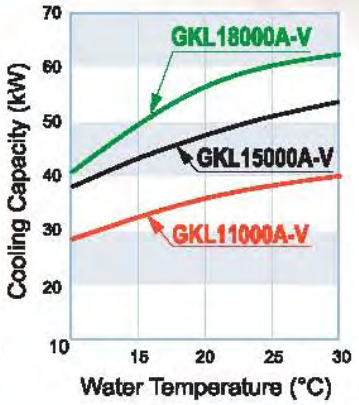
【GKL7500A-V】

Chilled Liquid : Water Ambient Temperature : 32℃
Flow Rate : 70L/min



【GKL11000A-V】
【GKL15000A-V】
【GKL18000A-V】

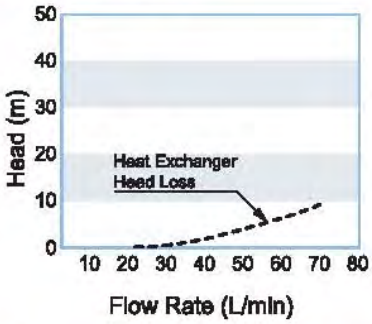
Chilled Liquid : Water Ambient Temperature : 32℃
Flow Rate : 215L/min



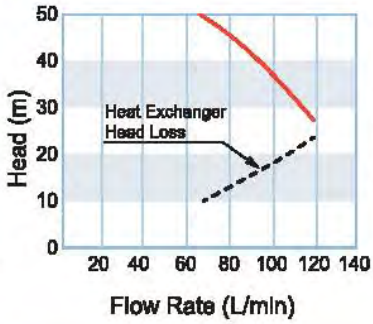
Pump Characteristic Curves

＊ Flow rate for stand-alone pump operation

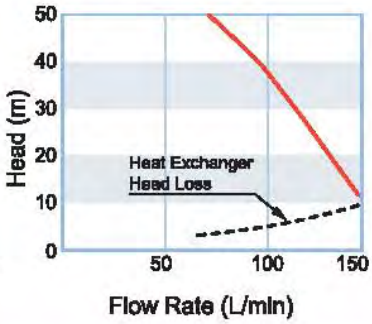
【GKL3750A-V】



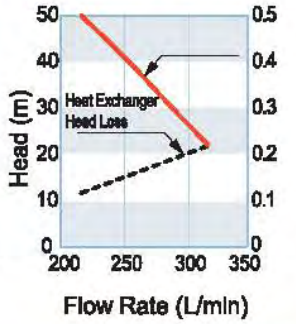
【GKL5500A-V】



【GKL7500A-V】



【GKL11000A-V】
【GKL15000A-V】
【GKL18000A-V】



Application Examples

Welding Machine

Electrode and power supply cooling.

Packaging Machinery

Cooling after heat sealing.

Washing and cleaning machines

Concentrated cooling water supply for vapor cleaners.

Die cooling

Can be used to supply cooling water when casting plastic or maintain even temperatures of metal molds.

High Frequency Induction Heating Equipment

Heating coil cooling and high frequency power supply cooling.

Laser

Cooling of diode laser oscillators and optical systems.

Specifications Chart

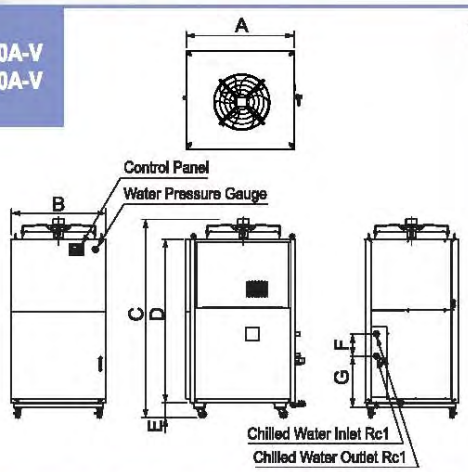
Item			Model	GKL3750A	GKL5500A	GKL7500A	GKL11000A	GKL15000A	GKL18000A
Cooling Capacity		＊1	kW	12.0	20.0	25.0	37.2	48.0	57.0
Outside Dimensions (H × D × W)			mm	1685x905x805	1825x990x855	1650x800x1340	2020x916x1602		2117x916x1602
Unit Mass (dry weight)			kg	235	285	330	475	480	560
Chilled Water	Operable Ambient Temp. Range		℃	5 ～ 43					
	Operable Liquid Temp. Range		℃	10 ～ 30					
	Control Precision	＊4		±1.0°C or Lower					
	Operating Water Pressure		MPa	0.10 ～ 0.50	0.28 ～ 0.50	0.10 ～ 0.50	0.22 ～ 0.5		
	Operating Flow Rate		L/min	20 ～ 70	68 ～ 120	70 ～ 150	215 ～ 320		
	Inlet and Outlet Port Size			Rc1		Rc1.1/4	Rc1½		Rc2
Power Specifications	Power Source	＊2	V(Hz)	Three phase 400V ± 10% (50 Hz)					
	Power Consumption	＊1	kW	5.4	11	11.3	14.1	19.0	22.6
	Electric Current	＊1	A	9.7	19	21.5	23.9	33.2	40.0
	Power Capacity	＊3	kVA	8.1	14	18.1	20.0	27.1	33.0
Equipment Details	Compressor			Fully sealed scroll type					
	Condenser			Fin and tube forced air cooling					
	Operation Control Method			Hot gas bypass control + Compressor On/Off					
	Heat Exchanger Construction / Material			Plate type heat exchanger / SUS316 (Brazing: Cu)					
	Discharge Pump Construction / Output		kW	Multistage centrifugal immersion type/1.1	Multistage centrifugal immersion type/1.6	Multistage centrifugal immersion type/2.14	Multistage centrifugal immersion type/3.9		
	Water Tank Capacity		L	Approx. 9	Approx. 115	Approx. 140	Approx. 220		
	Refrigerant			R - 407C	R - 407C / R - 410A				

＊1. Operating Conditions: Chilled water temp.: 20 °C, Ambient temp.: 32 °C. Cooling capacity is at least -5 % of listed figures. ＊2. Source voltage phase unbalance should be less than ±3 %. ＊3. The figure noted is when operating at the highest capacity in the normal operating range. ＊4. Continuous current load fluctuation within ±10 %, and with stable ambient temp. and power supply, etc. Does not include starting times or when the cooling load is too small, in which case the compressor may cycle on and off.

External Dimensions

GKL3750A-V GKL5500A-V

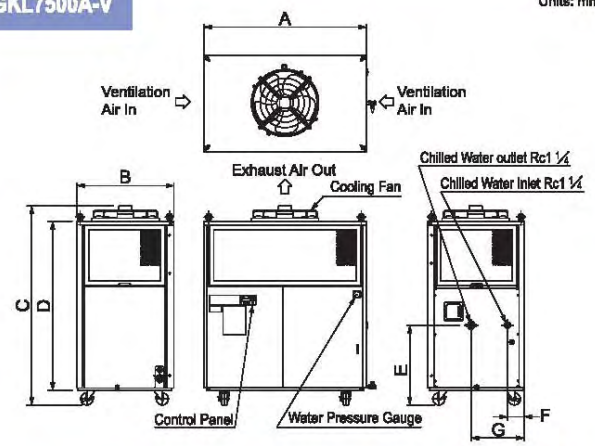
Units: mm



	A	B	C	D	E	F	G
AKL3750A-V	905	805	1685	1435	150	215	410
AKL5500A-V	990	855	1825	1485	150	215	410

GKL7500A-V

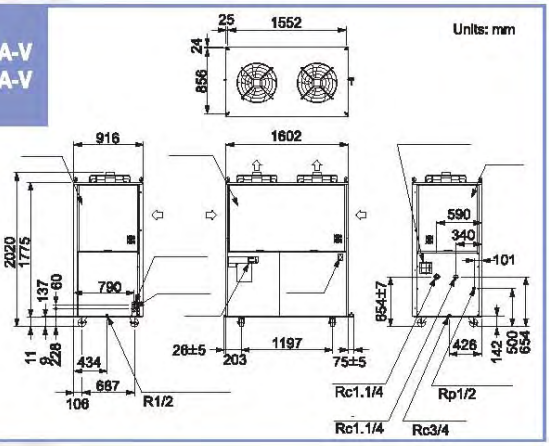
Units: mm



	A	B	C	D	E	F	G
AKL7500A-V	1340	800	1650	1401	660 ± 7	137	437

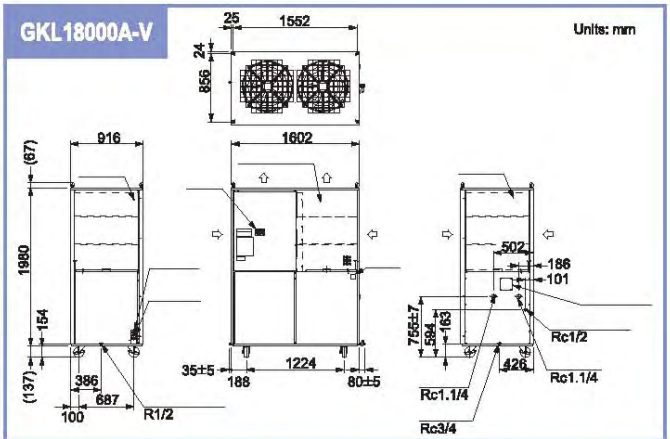
GKL11000A-V GKL15000A-V

Units: mm



GKL18000A-V

Units: mm



This catalogue contains product specifications as on June 2017.
- Actual product colors may vary slightly from the pictures.
- The structure or specifications of products contained in this catalogue are subject to change without prior notice.

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