

# 4KGM Cryocooler HE05

## Leading Cryogenic Technologies

ULVAC CRYOGENICS has been providing cryopumps based on many years of experience in vacuum and cryogenic fields. Now we offer cryocoolers backed by this expertise to meet the requirements in the leading-edge industries and R&D field.

### Features

- Ultimate Temperature of Below 2.7K
- Orientation Independent

### Applications

- Ultra-low-temperature laboratory equipments
- Superconducting magnet cooling system
- Dilution refrigerator
- Cooling semiconductor device
- Cooling SQUID

### Specifications

#### 4KGM Cryocooler

Power frequency	50Hz	60Hz
Cooling Capacity	1st Stage	10W/45K
	2nd Stage	0.5W/4.2K
Ultimate temperature *1	2nd Stage	<2.7K
Cooldown time(4.2K) *1	75min	60min
Weight	11kg	
Dimension	146(W) x 282(D) x 495(H)mm	
Maintenance interval *2	10,000 hours	

#### Compressor

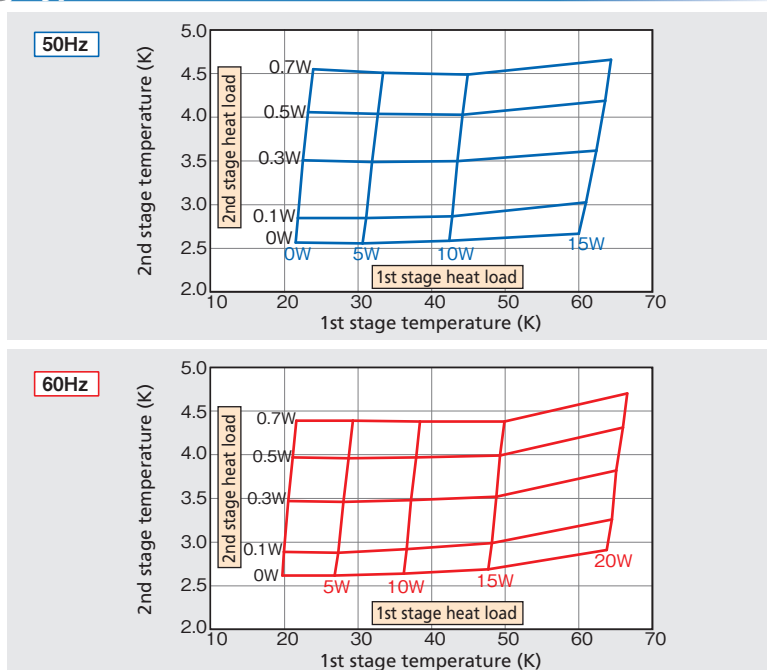
Model	UW404	
Power frequency	50Hz	60Hz
Power supply rating	AC200V×3φ	AC220V×3φ
Power consumption*3	3.5kW	4.5kW
Cooling method	Cooling water 4.5L/min	

\*1 Performance with no heat load  
It may vary depending on the ambient conditions or samples.

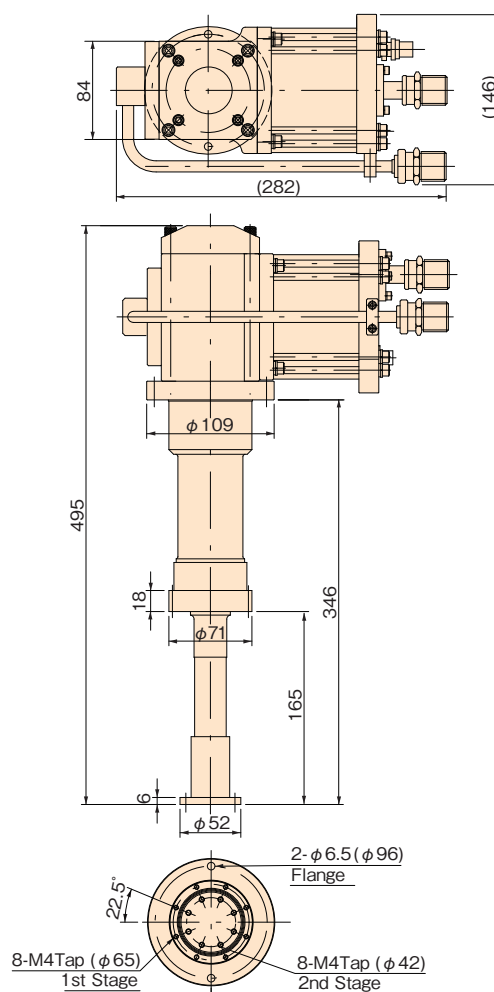
\*2 This is our recommendation, not guaranteed duration.

\*3 When in steady-state

### Typical Performance Curve (with 2nd stage pointing down)



### Dimensions



\* Specifications subject to change without notice.

Export Control Policy : When applying our refrigerator to a cryocooler for optical sensors, it falls under row 6.A.2.d.2 of the control list established by The Wassenaar Arrangement, which is equal to row 10(2) of appended table 1 of Japan's Export Trade Control Order.

Customers must follow all related rules and regulations such as Foreign Exchange and Foreign Trade Act and take appropriate procedures when exporting or re-exporting our refrigerators.

**ULVAC CRYOGENICS INC.**  
<http://www.ulvac-cryo.com/>

**Head Office & Factory** Phone: +81-467-85-0303 Fax: +81-467-85-9356  
 1222-1 Yabata, Chigasaki, Kanagawa, 253-0085, Japan

**Kyoto Factory** Phone: +81-774-28-5595 Fax: +81-774-20-2201  
 140-1, Megawa, Makishima-cho, Uji, Kyoto, 611-0041, Japan