

# 4K CRYOCOOLER UR4K03

## New Cryo Technology from ULVAC Cryogenics

Since 1981, ULVAC CRYOGENICS INC. has manufactured cryopump systems for the semiconductor, LCD and related vacuum industries. Our experience in these competitive markets has taught us to build highly reliable and powerful 2-stage Gifford-McMahon refrigerators. We have leveraged that experience and developed a 4K cryocooler, utilizing our own proprietary technology, which can be used for laboratory or industrial applications to eliminate the need for liquid helium. This compact unit features excellent thermal stability and low input power.

### Specifications

#### 4K Cryocooler

Model	UR4K03	
Refrigeration capacity	1st stage	5W / 60K
	2nd stage	0.3W / 4.2K <sup>*1</sup>
Ultimate temperature	2nd stage	2.8K
Cooldown time	4.2K	within 100 minutes
Weight	11 kg	
Dimensions (mm)	170 (W) x 297 (D) x 490 (H)	

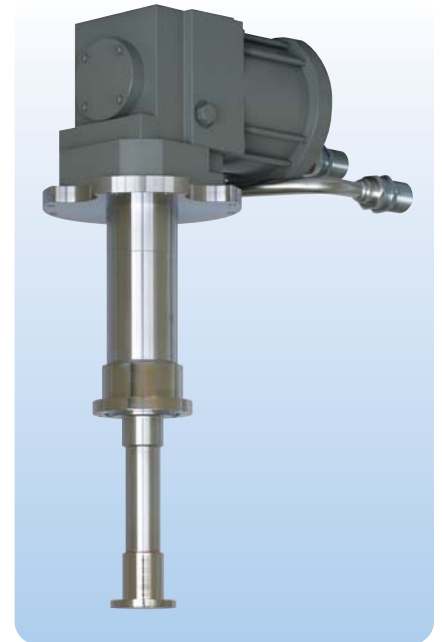
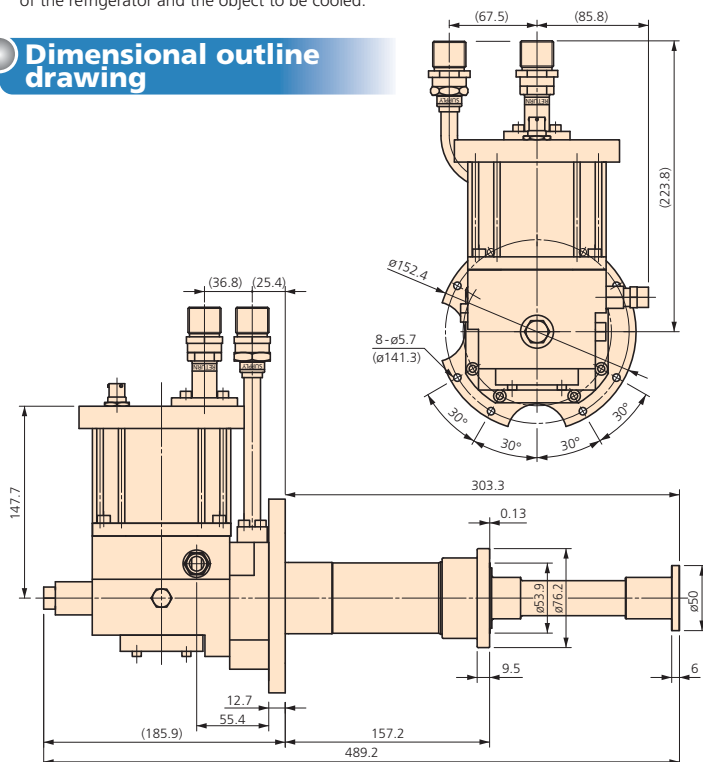
#### Compressor

Model	C10
Cooling system	Water cooled
Power supply rating	200VAC × 3ø × 50Hz 220VAC × 3ø × 60Hz
Power consumption	1.5kW / 1.7kW (50/60Hz)
Cooling water	2L / min (20°C)

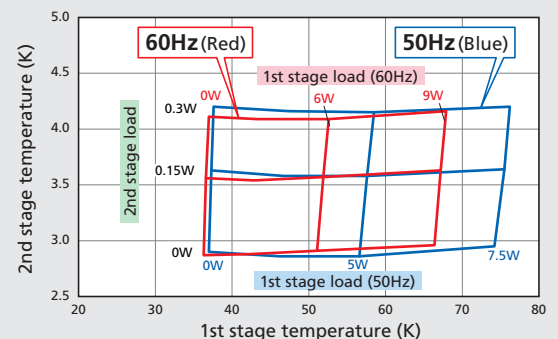
<sup>\*1</sup> Refrigeration capacity with C15R compressor:  
0.4W / 4.2K

<sup>\*</sup> Values are for 50Hz with no load.  
Performance depends on the installation environment of the refrigerator and the object to be cooled.

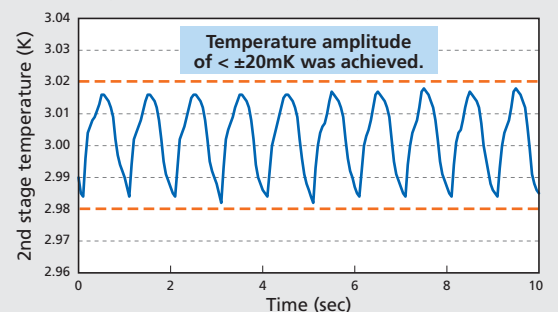
### Dimensional outline drawing



### Refrigeration Capacity Load Map



### 2nd Stage Temperature Stability



When equipped with temperature amplitude suppression mechanism (optional) (patent pending)

<sup>\*</sup> Specifications subject to change without notice.