

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

**Visit our website - *Click HERE***

HAMAMATSU

PHOTON IS OUR BUSINESS

# COOLERS FOR PHOTOMULTIPLIER TUBE C10372/C10373 SERIES

The C10372 series and C10373 series are water-cooled thermoelectric coolers designed to reduce thermal electrons emitted from the photocathode of photomultiplier tubes (PMTs) in order to improve signal-to-noise ratio (S/N ratio). The C10372 series further contains an electrostatic and magnetic shield that minimizes the influence of the ambient environment.
The C10372 series are for 28 mm and 51 mm diameter head-on PMTs, while the C10373 series are for MCP-PMTs.

## FEATURES

- **Thermoelectric cooling using Peltier module**
- **About -30 °C cooling temperature (with +20 °C cooling water)**
- **Temperature can be set in the range of -30 °C to 0 °C (dial type)**
- **Evacuated, double-pane window with heater for frost prevention**
- **Built-in electrostatic and magnetic shielding (C10372 series)**
- **Internal protective circuit safeguards Peltier element module in case of low water**
- **Internal protection circuits prevent output short-circuit, output overvoltage, and excessive temperature rise in power supply**
- **Stable operation due to a regulated power supply**



Left: Power supply Right: Cooled PMT housing

CE

## SPECIFICATIONS

### COOLED PMT HOUSING

| Parameter | | Description / Value |
|---|---|---|
| Cooling method | | Thermoelectric cooling using Peltier module |
| Heat exchange medium | | Water |
| Amount of cooling water | | 1 L/min to 3 L/min (water pressuere: below 0.3 MPa) |
| Cooling temperature (with cooling water at +20 °C) | | Approx. -30 °C |
| Temperature controllable range (with cooling water at +20 °C) | | -30 °C to 0 °C (continuously adjustable) |
| Cooling time | | Approx. 120 min |
| Optical window material | | Evacuated double-pane synthetic silica window with heater (185 nm to 2200 nm) |
| Applicable PMTs (sold separately) | C10372 series | 28 mm (1-1/8") Dia., 51 mm (2") Dia. head-on |
| | C10373 series | MCP-PMT (R3809U series, R5916U series) Ⓐ |
| Applicable socket assembly (sold separately) | C10372 series | E2762 series Ⓐ |
| Applicable PMT holder (sold separately) | C10373 series | E3059-500 (R3809U series), E3059-501 (R5916U series) |
| Operating ambient temperature / Humidity Ⓑ | | +5 °C to +40 °C / Below 75 % |
| Storage temperature / Humidity ⒷⒸ | | -15 °C to +50 °C / Below 80 % |
| Weight | | C10372 5.8 kg / C10373 5.5 kg |

**NOTE:** ⒶSee the section of sold separately ⒷNo condensation ⒸNo cooling water

### POWER SUPPLY

| Parameter | | Description / Value |
|---|---|---|
| AC Input voltage | C10372/C10373 Ⓓ | AC 100 V (50 Hz / 60 Hz) |
| | C10372-01/C10373-01 Ⓔ | AC 120 V (50 Hz / 60 Hz) |
| | C10372-02/C10373-02 Ⓕ | AC 240 V (50 Hz / 60 Hz) |
| Power consumption | | 200 V·A |
| Output voltage | | 24 V to 27 V |
| Output current | | 4.2 A |
| Protection circuit | | Protective circuits to safeguard Peltier element module in case of low water and to prevent output short-circuit, output overvoltage, and excessive temperature rise in power supply. |
| Operating ambient temperature / Humidity Ⓑ | | +5 °C to +40 °C / Below 75 % |
| Storage temperature / Humidity Ⓑ | | -15 °C to +50 °C / Below 80 % |
| Weight | | 2.1 kg |

**NOTE:** ⒷNo condensation ⒹFor Japan ⒺFor America ⒻFor Europe

### COMPONENTS AND ACCESSORIES

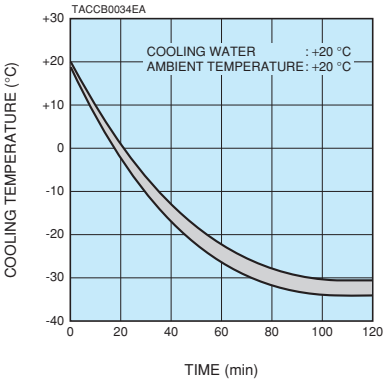
●Cooled PMT housing (Including an input window) ●Power supply ●Light shield cap ●Water hose clamps (2 pcs)
●Connection cable (1.5 m) ●AC line cable (2.5 m: -02 type, 2.0 m: other types) ●Socket assembly / PMT holder mounting screw (4 pcs)

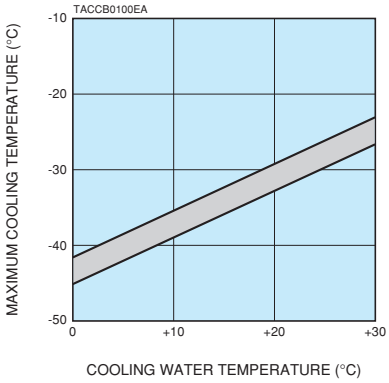
* To use these coolers, water hoses with an inner diameter of 15 mm and a water supply line with the matching round faucet are required. Prepare those hoses of the desired length. In addition, prepare a filter for removing impurities such as chlorine ions.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office.
Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2025 Hamamatsu Photonics K.K.

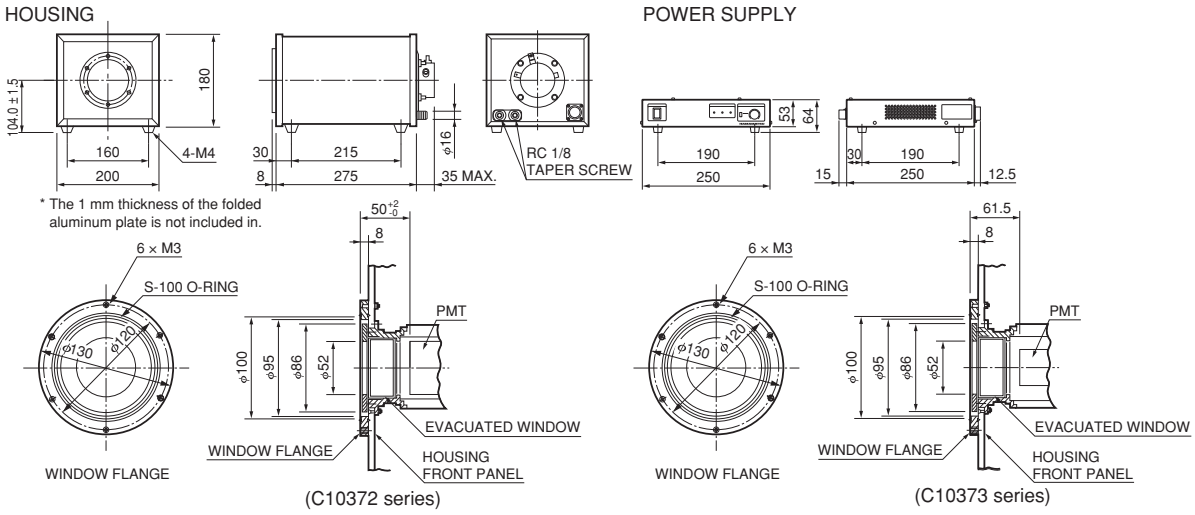
# COOLERS FOR PHOTOMULTIPLIER TUBE C10372/C10373 SERIES

## COOLING CHARACTERISTICS



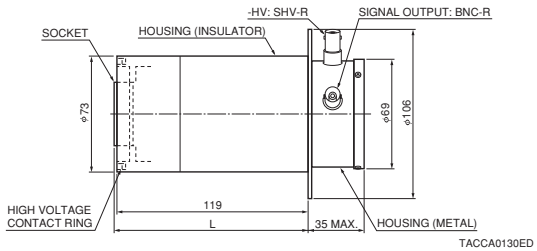




## DIMENSIONAL OUTLINE (Unit: mm)




## SOLD SEPARATELY (Unit: mm)

### Socket assemblies for C10372 series E2762 series



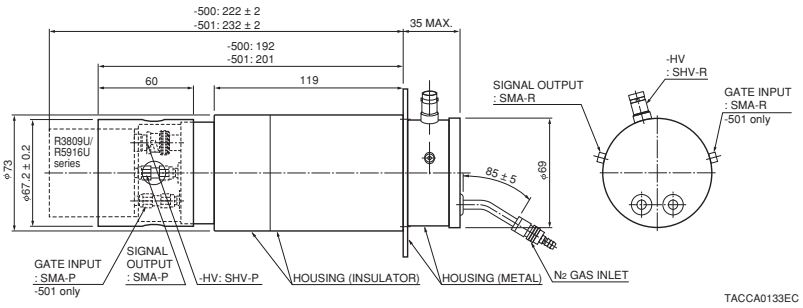

L: E2762-509...106.5
E2762-510...106.5
E2762-511...120.5

* The high voltage contact ring is used for internal electrical connection to the magnetic shield case in the cooler.

**NOTE:** Ⓐ

| E2762 series | PMT |
|---|---|
| E2762-509 | R464, R585, R649 |
| E2762-510 | R329-02, R331-05, R2257 |
| E2762-511 | R316-02, R374, R2228, R5929, R6249 |

### MCP-PMT holder for C10373 series E3059-500/-501




| Holder for MCP-PMT | MCP-PMT |
|---|---|
| E3059-500 | R3809U-50 / -52 / -61 / -64 |
| E3059-501 | R5916U-50 / -52 / -61 |


**HAMAMATSU PHOTONICS K.K.** www.hamamatsu.com

**Electron Tube Division**
**314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539-62-5248, Fax: (81)539-62-2205**

**U.S.A.:** HAMAMATSU CORPORATION: 360 Foothill Road, Bridgewater, NJ 08807, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218
**Germany:** HAMAMATSU PHOTONICS DEUTSCHLAND GMBH.: Arzbergerstr. 10, 82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-265-8 E-mail: info@hamamatsu.de
**France:** HAMAMATSU PHOTONICS FRANCE S.A.R.L.: 19 Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr
**United Kingdom:** HAMAMATSU PHOTONICS UK LIMITED: 2 Howard Court,10 Tewin Road, Welwyn Garden City, Hertfordshire, AL7 1BW, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk
**North Europe:** HAMAMATSU PHOTONICS NORDEN AB: Torshamnsgatan 35, 16440 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: info@hamamatsu.se
**Italy:** HAMAMATSU PHOTONICS ITALIA S.R.L.: Strada della Moia, 1 int. 6 20044 Arese (Milano), Italy, Telephone: (39)02-93 58 17 33, Fax: (39)02-93 58 17 41 E-mail: info@hamamatsu.it
**China:** HAMAMATSU PHOTONICS (CHINA) CO., LTD.: 1201, Tower B, Jiaming Center, 27 Dongsanhuan Beilu, Chaoyang District, 100020 Beijing, P.R. China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn
**Taiwan:** HAMAMATSU PHOTONICS TAIWAN CO., LTD.: 13F-1, No.101, Section 2, Gongdao 5th Road, East Dist., Hsinchu City, 300046, Taiwan(R.O.C) Telephone: (886)3-659-0080, Fax: (886)3-659-0081 E-mail: info@hamamatsu.com.tw



TACC1040E04
FEB. 2025 IP

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP