

hum3® Enterprise

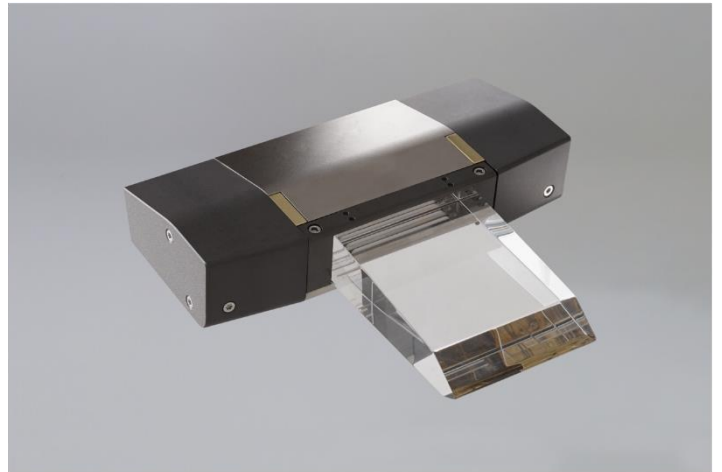
Datasheet



hum3® Main Cabinet and Chiller



Remote Cabinet



hum3® Lamp Head

All figures are based on a single head 10 kW electrical output system. Other options are available on request

| 1. Main Cabinet | |
|------------------------------------|--|
| 1.1 Characteristics | |
| Dimensions | 1500 x 800 x 500mm (H x W x D) |
| Weight | 225kg or 250kg Dependant on voltage variant. See System Schematic. |
| Cooling Method | Air- Cooled |
| Ambient Working Temperature | 15 – 35°C |
| Control Interfaces | HMI |
| 1.2 Power Output | |
| Rated Electrical Output Power | 10kW - Limited by head module, refer to section 5.1 |
| 1.3 Input Requirements | |
| 1.3.1 Power | |
| Rated Input Voltage | 400V/480V 3Ph+E 50/60 Hz |
| Maximum input power | 20kVA |
| External fuse protection | Install to local regulations |
| External Hardwired Interface cable | 10m (36 cores) |
| External Interface | Hardwired, Profinet (optional upgrade) |
| 1.3.2 Safety | |
| Performance level | Performance Level “D” |
| E-Stop | Front door and on remote HMI. Ready to interface with external E-Stop. |
| Safeguard Interlock | Ready to interface with external safeguard |

| 2. Remote Cabinet | |
|--|---------------------------------|
| 2.1 Characteristics | |
| Dimensions | 1000 x 600 x 250mm (H x W x D) |
| Weight | 80kg |
| IP rating | IP53 |
| Mounting | On Robot or Gantry |
| Maintenance requirements | Toolless change air filter |
| Dynamic Requirements | Accelerations/decelerations ~1G |
| 2.2 Notes | |
| Suitable for mounting on robot or gantry installations where cable runs are prohibitively long. Dimensions based on single head module with a 10kW electrical output power main cabinet. | |

| 3. Chiller Cabinet | |
|---|---|
| 3.1 Characteristics | |
| Dimensions | 775 x 510 x 850mm (H x W x D) |
| Weight | 125kg |
| Cooling Capacity | 17L/Min |
| Tank Capacity | 11L |
| Noise | 75dB ± 10% |
| Conductivity | < 5µS/cm |
| Other features | Non-return, solenoid valve |
| Consumables | Inline DI cartridge and particulate filters |
| 3.2 Requirements | |
| Water quality | Deionised Water |
| Water connection | Dry disconnection flow and return to optical module |
| Control | 'Plug and play' power and signal connections |
| <i>Direct sun radiation and rapid temperature changes are to be avoided. Good room illumination is recommended.</i> | |

4. System

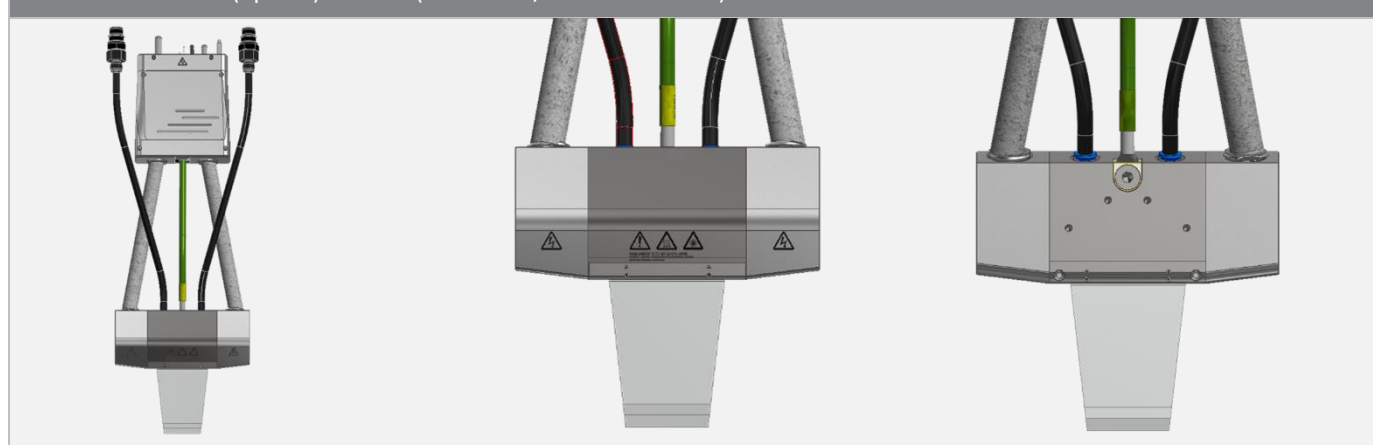
4.1 Environmental data

| | |
|---------------------------------|------------|
| System heat dissipation | ca. 5kW |
| Noise level, without processing | 75db ± 10% |
| Electromagnetic compatibility | EN 61000 |

4.2 Artificial Optical Radiation

This equipment is an intense source of radiation. Operators should take the appropriate eye and skin protection in accordance with EN62471:2008 and / or Machinery Directive 2006/42/EC and / or any local directives that could apply.

5. Head (optical) module (HHM0032/2" heated width)



5.1 Characteristics

| | |
|------------------------------------|--------------------------------|
| Rated max electrical power at head | 6.1kW |
| Module dimensions | 171 x 37.5 x 185mm (H x D x W) |
| Optical process area | Scalable 25-52mm |
| Head mounting | 4 x M4 holes on rear |
| Distance to connection box | 500-1000mm |
| 2 x cable OD/bend radius | ø21mm / 65mm |
| 2 x hose OD/ bend radius | ø10mm / 50mm |

6. Lamp head - Umbilical Assembly



6.1 Umbilical Cable (Combined Power and Signal) Specifications

| | |
|-------------|---------------|
| OD | 30 mm |
| Length | 7,9,10m |
| Weight | 2 kg/m |
| Bend radius | 150mm minimum |

6.2 Hose Connection Specifications

| | |
|---------------------|-----------|
| Coolant Line Length | Up to 10m |
| OD | 27mm |
| Hose Bend Radius | 75mm |

7. Control interface

The humm3® discovery is supplied with a 10" wired Human Machine Interface (HMI) which interfaces with the applications PLC to set the operating parameters, modulating pulse energy, width, and frequency of the flashlamp in response to input(s) from the robot.

7.1 Characteristics

| | |
|-------------------|---------------------------------|
| Dimensions | 223.5 x 30.7 x 90mm (H x W x D) |
| Weight | 1.6kg |
| Connection length | 8, 10, 15 and 25m Available |

All information herein is indicative only and is subject to change without any notice at any time.

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