

# PRODUCT DATA SHEET

Rev. 4 19-Jun-2024  
Catalogue no. P501

## Cm36



**Brass surface pump with mechanical seal and non-locked, resized type, centrifugal regenerative impeller.**

**Vers. HIGHER HEAD**

[1-phase]

**Compliant with** Machinery Directive: 2006/42/EU  
EMC Directive: 2014/30/EU  
Rohs Directives: 2011/65/EU + 2015/863/EU  
ErP Directives: 2009/125/CE + 2012/27/UE

EU Regulations: 2017/1369 + 547/2012 + 2019/1781 (2021-03) + 2024/1781 (2024-07)  
EN 809:1998 + A1:2009/AC:2010  
EN 60335-1/A1/A2/A14 (2021-10)/A15(2023-07)/A16(2024-03)/A11(2024-04)  
EN 60335-2-41 (2024-01)  
EN 61000-3-2/A1 (2021-12) + EN 61000-3-3/A1 (2021-07)  
EN IEC 63000:2016+AMD1:2022 CSV + EN IEC 63000:2018 + EN IEC 63000:2021-03  
EN IEC 55014-1 (2023-09); EN IEC 55014-2 (2021-11)

**Employ** Ideal to pressurize liquids in closed-loop installations.

**Electric motor** 2 poles induction type, 2900RPM.  
Continuous duty S1. Windings Cl. F 155°C lifetime 20000h @ 155°C, dir. ASTM D 2307 (with enamelled copper Cl. 180°C)  
Standard 3-ph motors are provided with 400V Δ-connection as standard.  
Performed tests for electric characteristics: dielectric withstand test at 2200VAC, insulation test at 500V, resistance test.  
Phase insulation is not provided.

**Motor size (MEC)** 56

**Efficiency class** EN 60034-30 (3PH - IE2/IE3)

**Motor-protector (@ 150°C ±5)** \*

**Capacitor** 6,3mF ±5% 450V

Referred to the catalogue standard 230V monophase execution

**Thermal insulation cl.** F (155°C)

**Protection degree** IP42 (IPXY\*)

**Electric supplies** 230-50, 110-50/60\*, 115-50/60\*, 120/60\*, 220-60\*, 230-400/50-60, 400-50/60, 380/460-50/60\*, 440/60\*, 200-50/60\*

Allowances: +/-10% if not specified - If (\*) already produced special execution

**Supply cable** 2x075 L=500mm, 3x075 L=500\*

**Clip-box (position)**



Available positions; on demand upon quantity if dashed

**Shaft diameter (mm)** 10

**Materials (wet parts)** body: CuZn, base: CuZn, impeller: CuZn, shaft: AISI420, keyway: AISI316, seeger: AISI420

Referred to surfaces in contact with the pumped medium (for the mechanical seal, if applicable, see following)

**Mechanical seal** (386006) ø10 [SOF] SiC/SiC/VITON/AISI302

Special mechanical seal

**Fan / Fancover** fan: PA6 (<85°C, peak 110°C) / PA6 UL94V0\*  
fan-cover: PP (<100°C, peak 120°C) / metal\* / PP UL94V0\*

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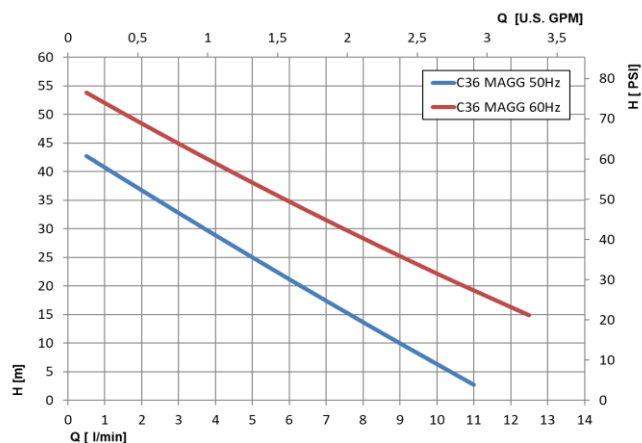


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[1-phase]

|                                                                                                                                                        |                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bearing units</b>                                                                                                                                   | ball type, shielded both sides (ZZ)                                                                                                                                                                                                 |
| Bearings are developed to obtain >20000h lifetime, calculated accordingly to ISO 281, at nominal conditions of employ as indicated by the manufacturer |                                                                                                                                                                                                                                     |
| <b>O-ring and Gaskets</b>                                                                                                                              | high capacity elastomer                                                                                                                                                                                                             |
| <b>In- / Outlet type</b>                                                                                                                               | G1/4 BSPP                                                                                                                                                                                                                           |
| <b>In- / Outlet position</b>                                                                                                                           | 01, 02, 03, 04                                                                                                                                                                                                                      |
| <b>Length (mm, VP pump only)</b>                                                                                                                       | -----                                                                                                                                                                                                                               |
| <b>Liquid compatibility</b>                                                                                                                            | Pumping of clear and inert liquids, such as water, glycol water dilutions (ethylene sugg.d, <40% voll.), oil and oil emulsions.<br>Particulate max diameter: 80µm. Max density: 1,8Kg/dm³. Max cinematic viscosity: 55cSt (55mm²/s) |
| Limit density and viscosity for the nominal operation of the catalogue execution; for higher values check the technical feasibility                    |                                                                                                                                                                                                                                     |
| <b>Liquid temperature</b>                                                                                                                              | water, water dilutions: -20°C / +90°C (+160°C)*   oil, emulsions: -20°C / +120°C (+200°C)                                                                                                                                           |
| Referred to liquid only for the catalogue execution (limits of the mechanical seal prevail) - Not referred to motor working temperatures               |                                                                                                                                                                                                                                     |
| <b>Limit pressure (bar)</b>                                                                                                                            | with standard mech. seal: 8<br>with special mech. seal: 15<br>Sum of system pressure and pump pressure (limits of mechanical seal, if applicable, prevail)                                                                          |
| <b>Hydraulic ends</b>                                                                                                                                  | 50Hz: 45m - 12l/min<br>60Hz: 56m - 18l/min<br>Referred to water, 20°C for the standard catalogue version - Allowances ISO 9906 App. A: ±10% flow, ±8% head                                                                          |
| <b>Nominal current (A)</b>                                                                                                                             | 50Hz: 1,00<br>60Hz: 1,36<br>Referred to water, 20°C at minimum useful flow rate of 1l/min - Allowances ISO 9906 App. A: ±9%                                                                                                         |
| <b>Installed power P1 (kW)</b>                                                                                                                         | 50Hz: 0,23<br>60Hz: 0,31<br>Referred to water, 20°C at minimum useful flow rate of 1l/min - Allowances ISO 9906 App. A: ±9%                                                                                                         |
| <b>Performance (1-ph)</b>                                                                                                                              |                                                                                                                                                                                                                                     |



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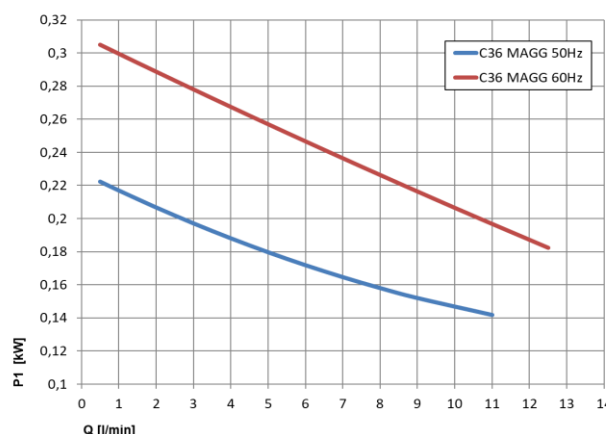


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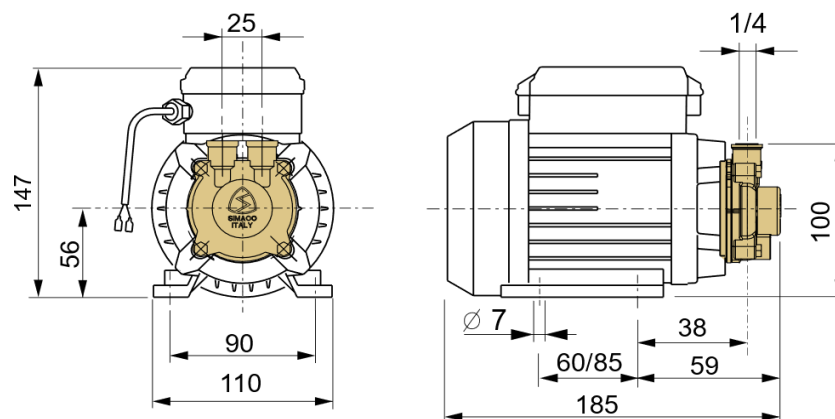
Vers. HIGHER HEAD

[1-phase]

Power P1 (1-ph)



Dimensions



Use restrictions

Not self-priming.  
Not intended for dry running, if dry occurs do not exceed 2-3" running; avoid running with flow rates lower than 8-10% the maximum flow.  
Not intended for pumping of acid or basic pH solutions, even at low concentration.  
Not intended for pumping hydrocarbons and similar.  
Not intended for inverted running unless a specific mechanical seal is assembled.  
Not intended for outdoor duties unless the pump is carefully insulated.  
Not intended for duties under -10°C ambient temperature and not tested for duties over 40°C ambient temperature.  
Not tested in inverter running (on the customer to test with inverters from recent technology, together with a overvoltage filter, up to 70Hz run)

Storage / Use

Store indoor in dry and clean place; storing temperature -30 / +60°C.  
To assemble horizontally, under positive suction head only (pump placed way down the tank or the liquid load) to allow priming.  
Do not dismantle and do not replace any component unless SIMACO is giving its approval.

Sound pressure (dB)

66,5

Measured at 1m distance at pump nominal operating point Q=0

Weight (Kg)

3,8

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