



## Micro Hydro Turbine

Micro 300 Series, M300-XX  
50mm or Larger Pipe Sizes  
300 Watt Maximum Power Output  
12-24VDC/120VAC Configurations

Soar Hydropower's Micro turbine series are designed for power generation in new or existing water networks and can be installed on any two inch or larger pipeline. Installation is simple and systems are plug-and-play. With minimal site prep requirements they are ideal for both local and off-grid applications. Common applications are installed in parallel with existing control or pressure reducing valves.

Micro Hydro turbines are ideal for running Remote terminal units (RTUs), SCADA systems, monitoring equipment, sump pumps, lighting, blowers, fans, and pressure management devices. Systems can be configured for 12-24VDC, or 120VAC, and maximum power output is 300 Watts. Generated power can be used as it is generated and excess is stored through a sophisticated battery charging system. When auxillary batteries are fully charged, the turbine automatically shuts down to prolong system life.

There are two versions of the M300 Micro Turbine. The M300-60 is engineered for higher head applications (up to 42 meters) while the M300-30 is engineered for lower head (up to 21 meters). Power output for both models depends on site specifics but both share the same 300W maximum potential.

***For purchasing and application support contact your distributor or Soar directly***

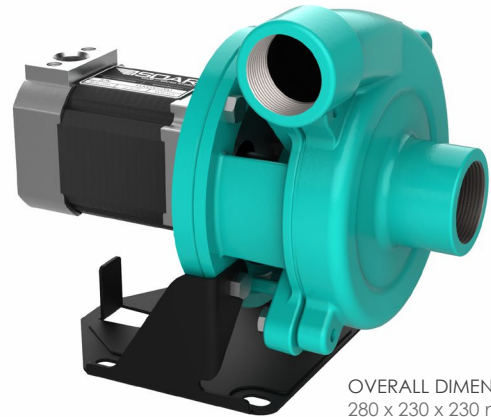
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### Micro Series Features

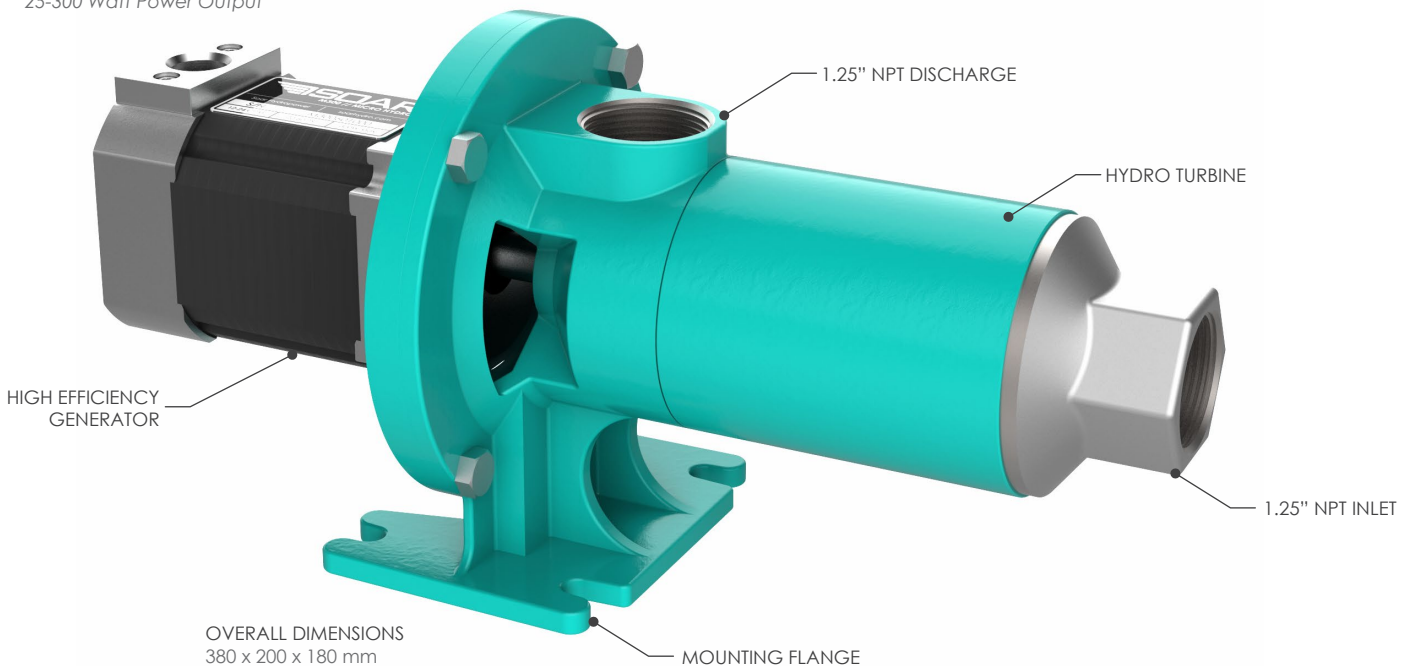
Soar's Micro Hydro Turbines are packaged solutions with simplified installation and an extremely compact footprint. They integrate seamlessly into both new and existing water delivery networks. Typical systems include turbine, generator, and controls and come ready for drop-in generation.

M300-30  
**Micro Hydro 300-30**  
 7-21 meters, 9.1-13.6 m<sup>3</sup>/hour  
 75-300 Watt Power Output



OVERALL DIMENSIONS  
 280 x 230 x 230 mm  
 1.25" NPT Inlet - Top  
 1.50" NPT Discharge - Center

M300-60  
**Micro Hydro 300-60**  
 14-42 meters, 3.4-5.7 m<sup>3</sup>/hour  
 25-300 Watt Power Output



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## Micro Hydro Controller

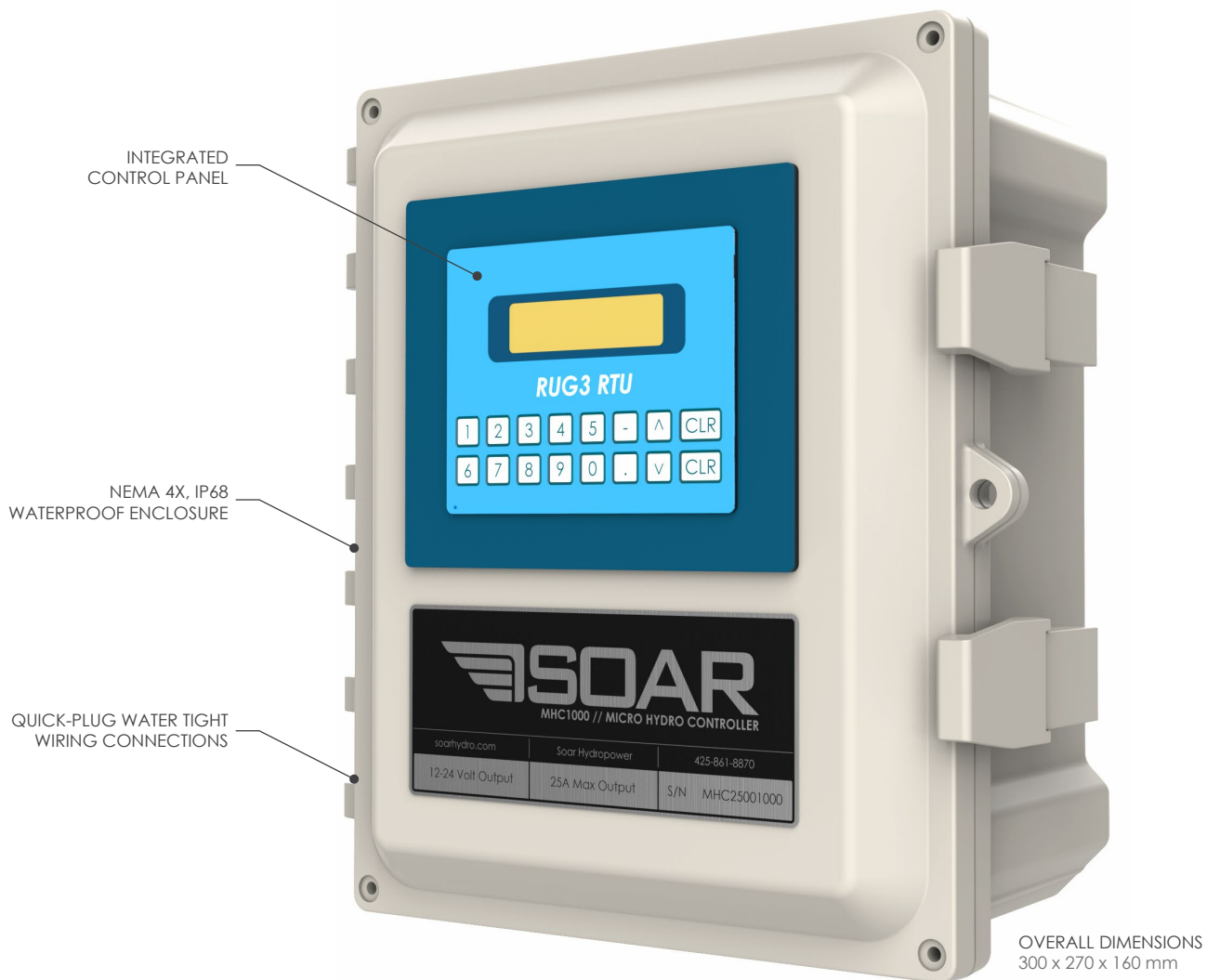
Micro Controller 2500 Series, MHC2500  
 25A Maximum Current Capacity  
 12-24VDC/120VAC Configurations

### MHC2500 Controller Features

Soar's Micro Hydro Controller pairs seamlessly with the M300 series hydro turbines. With an intuitive interface and twist-lock wiring connections the MHC2500 is ready to manage power generation out of the box.

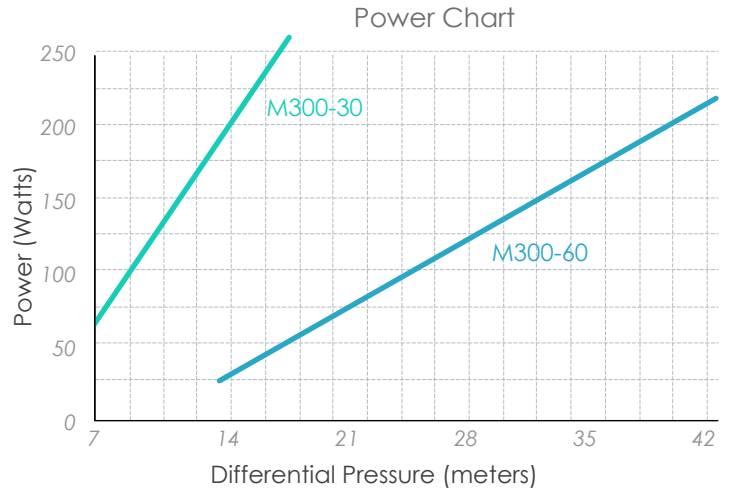
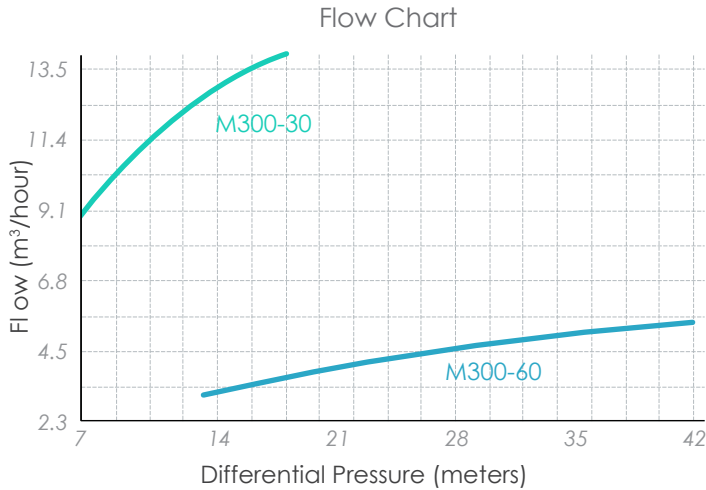
The controller automatically adapts system voltage from 12-24 Volts and can be configured for 120 Volt applications as well. The MHC2500 is compatible with turbine generation systems up to 25 Amps and charges an external battery bank that can be used actively or as needed.

MHC2500  
**Micro Hydro Controller**  
 12-24/120 Volt Configurable  
 25A Max Battery Charge Rate  
 Isolated/Power Grid Applications



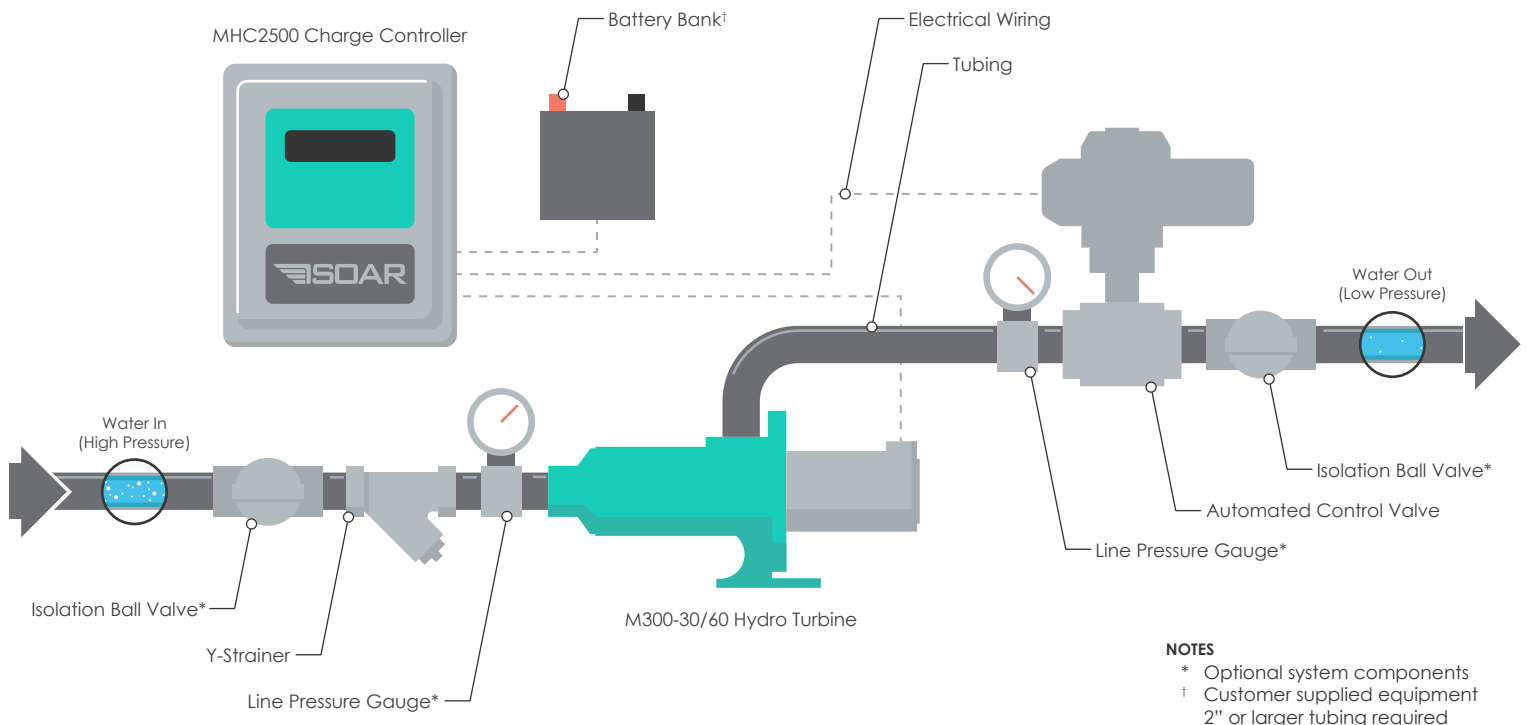
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### Turbine Range Charts



Flow and power output are both functions of system pressure differential. Differential pressure must be known to determine turbine performance. To calculate the flow rate or power output, start with the differential pressure value and track upwards to where it intersects the turbine curve. From that point on the turbine curve track directly left to determine the flow or power output. Excess flow or pressure can be diverted if necessary.

### Standard Installation Schematic



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