

## ETAPUMP® HR

### Solar operated submersible pumps, 4"

- lift up to 240 m
- flow rate up to 4.0 m<sup>3</sup>/h
- simple installation
- maintenance free
- high reliability and life expectancy
- cost-efficient pumping

#### Application

- drinking water supply
- livestock watering
- pond management
- irrigation
- etc.

#### Performance

pump system ETAPUMP®	HR-03H	HR-04	HR-04H	HR-07	HR-14	HR-20
lift [m]	80-240	0-80	80-160	40-90	0-50	0-30
max. flow rate [m <sup>3</sup> /h]	0.5	0.9	0.8	1.3	2.8	4.0
max. efficiency [%]	64	60	65	64	65	64
solar operation	nominal voltage 48 V DC open circuit voltage max. 100 V DC					
solar generator [Wp]	180-900	180-480	340-900	480-900	180-900	340-900
battery operation	nominal voltage 24 or 48 V DC					

#### Components

mode of operation	solar direct	battery
pump wet ends	HR-03H / HR-04 / HR-04H / HR-07 / HR-14 / HR-20	
motor	ETADRIVE® HR 600 W	
controller	EP600M	EP600M for 48 V ME24 for 24 V

#### Pump Wet End

- helical rotor pump (positive displacement pump)
- two main parts only: stator and rotor
- stator: geometry made of abrasion resistant rubber
- rotor: stainless steel, hard chrome plated, abrasion resistant
- high life expectancy
- sand damages less than other pump types
- self cleaning
- none-return valve
- dry running protection (optional)

#### Motor

- brushless DC motor
- water filled
- dynamic slide bearings, material: carbon/ceramic

#### Controller

- controlling of the pump system and monitoring of the operating states
- mounted at surface (no submerged electronic parts)
- two control inputs for well probe (dry running protection), float or pressure switches, remote control etc.
- overload protection
- EP600M: speed control, max. pump speed adjustable to reduce flow rate to approx. 50 %
- solar operation: integrated MPP tracking
- battery operation: low voltage disconnect and restart after battery has recovered

