TCU • TEMPERATURE CONTROL UNIT

SMART 4W TS

Water temperature control unit for industrial aplications up to 90ºC in the field of plastic injection moulding, extrusion, chemical, pharmaceutical, cosmetics or steel.

Water FLUID | **90ºC** MAX. TEMP.

MAIN FEATURES

- Pump works under pressure and reverse operation feature
- Solid State relays for heating
- Frontal cooler for solid state relays
- PID temperature control in cooling and heating process
- Hose breakage and leakage monitor
- Sensor failure monitor
- Automatic water filling
- Standard pump 60 l/m 3,8 bar
- Indirect cooling system
- Two independent solenoide valves one for cooling one for filling
- Entire cooling sytem, heaters, tank, process pipes and thermocouple in stainless steel
- Water level sensor through electrode
- Acoustic alarm
- Castors
- Pressure transducer
- Thermocouple in process return
- User friendly touch screen pcb card

OPTIONS

- *Analogic Input/Output temperature 4...20mA / 0-10 volt* OPT.
- *Interface TTY 20mA, OPC UA, Profinet, RS 485* OPT.
- *Multi polar connector for external signals* OPT.
- *Electronic flow measurement* OPT.
- *Pump frequency converter* OPT.
- *Plate exchanger 20 plates (standard 10 plates substitution)* OPT.
- *Plate exchanger 40 plates (standard 10 plates substitution)* OPT.
- *Kit plate exchanger 235 kw (Only for units with 200 lit/min pump - standard 10 plates substitution)* OPT.
- *By pass* OPT.
- *Manual mould drain* OPT.
- *Automatic moud drain* OPT.

EQUIPMENT TYPE

WATER WITH TANK

EQUIPMENT IMAGE

KEY DATA

Water
Fluid

90 ºC
Max. temp.

400/3/50hz
Power supply

CERTIFICATION
Industry 4.0 Ready

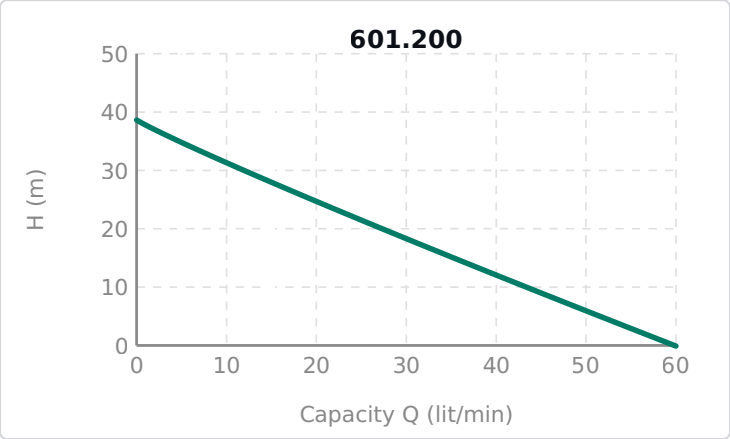
TECHNICAL DATA

PARAMETER	UNIT	SMART 4W TS
SMART 4W TS		
Fluid		**Water**
Maximum temperature	ºC	**90**
PID temperature control heating / cooling		**Yes**
Solid state relays + frontal cooler		**Yes**
Heating power	kW	**18 – 24 – 30**
Cooling power at 15ºC (E5Tx10)	kW	**65**
Cooling power at 15ºC (E5Tx20) OPT	kW	**90**
Cooling power at 15ºC (E5Tx40) OPT	kW	**120**
Cooling power at 15ºC (B12x30) OPT	kW	**155**
Tank capacity	Lit.	**35**
Expansion volume	Lit.	**11**
Pump TM 601.200	Max.Flow Max.Pressure Motor power	**60 lit/min 3,8 bar 0,5 kw**
Pump TM 602.200 OPT	Max.Flow Max.Pressure Motor power	**60 lit/min 5,8 bar 1 kw**
Pump TM 701.200 OPT	Max.Flow Max.Pressure Motor power	**70 lit/min 5,8 bar 1 kw**
Pump T 2001.200 OPT	Max.Flow Max.Pressure Motor power	**200 lit/min 5,8 bar 2,8 kw**
Hydraulic process connections TM601-602-701	inlet / outlet	**3/4"**
Hydraulic cooling connections TM601-602-701	inlet / outlet	**1/2"**
Hydraulic process connections T2001	inlet / outlet	**1 1/2"**
Hydraulic cooling connections T2001	inlet / outlet	**1”**
PCB card	Touch screen	**TG 111**
Thermocouple type		**PT1000**
Dimensions	mm	**355 x 750 x 790h**
Color	RAL	**7016 – 7035**
Max.electrical cabinet temperature	ºC	**40**
Sound pressure level	db (A)	**< 70**
Weight	kg	**40**
Voltage	V/Ph/Hz	**400/3/50hz** **480/3/60hz** OPT

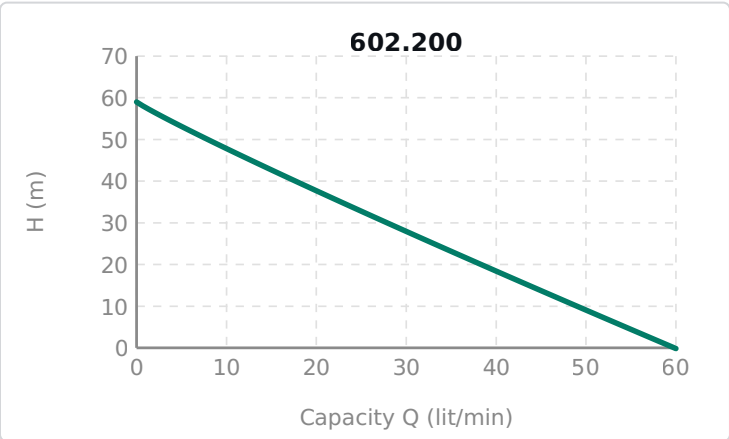
Note: Technical data subject to change. For custom specifications, contact the Marse technical department.

PUMP CURVES

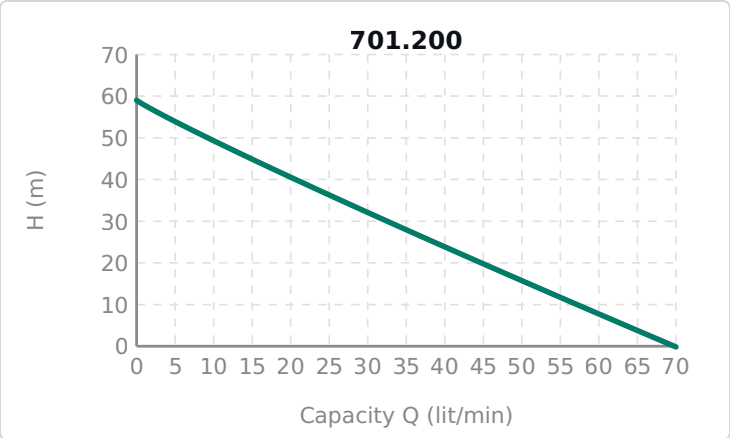
601.200 STANDARD



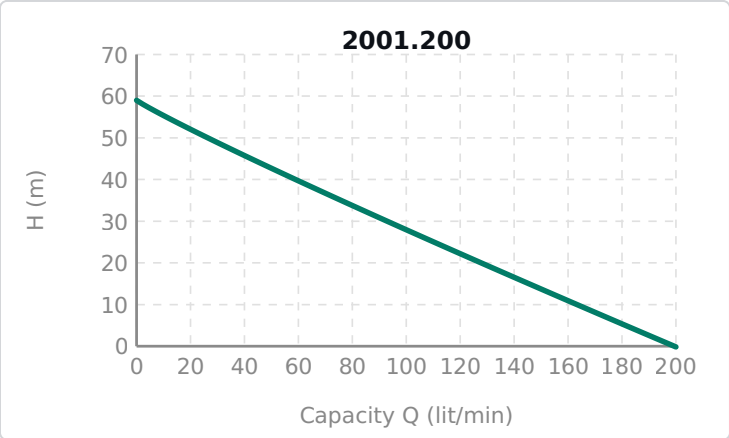
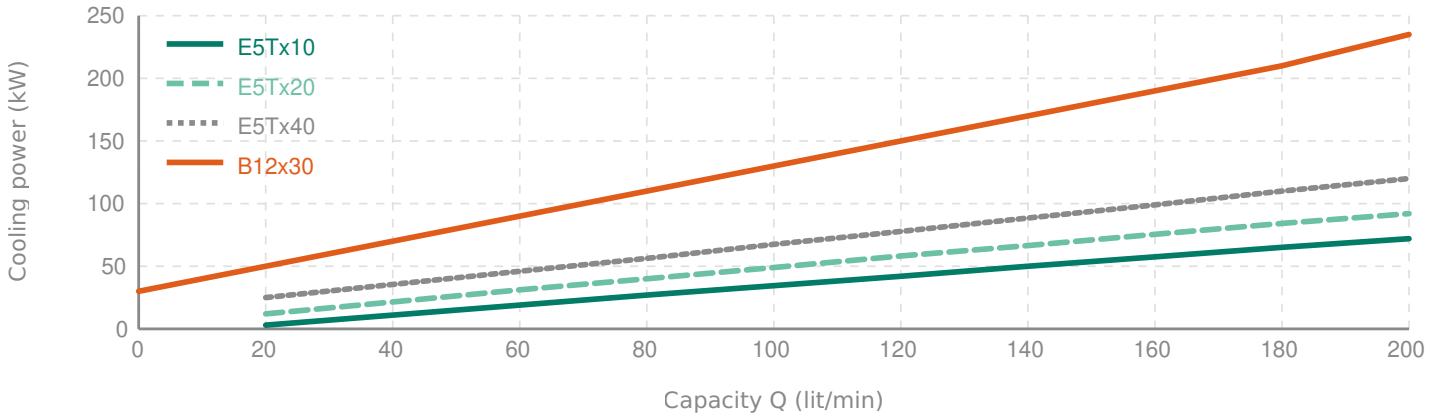
602.200 OPT



701.200 OPT



2001.200 OPT



COOLING CURVES