TCU • TEMPERATURE CONTROL UNIT

SMART 4A

Oil temperature control unit for industrial aplications up to 150ºC in the field of plastic injection moulding, extrusion, chemical, pharmaceutical, cosmetics or steel.

Oil
FLUID

150ºC
MAX. TEMP.

MAIN FEATURES

- Pump works under pressure
- 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
- Manual oil filling
- Standard pump 60 l/m 3,8 bar
- Indirect cooling system (submersible coil)
- One solenoide valve for cooling
- Entire heaters, tank, process pipes and thermocouple in stainless steel
- Oil level sensor through stainless steel buoy
- Acoustic alarm
- Castors
- Manometer
- User friendly digital control display

OPTIONS

- *Analogic Input/Output temperature 4...20mA / 0-10 volt* OPT.
- *Flow sensor for pumps 60 lit/min SBT 634* OPT.
- *Flow sensor for pumps 70 lit/min SBT 646* OPT.
- *Flow sensor for pump 200 lit/min SBT 657* OPT.
- *By pass* OPT.
- *Pressure transducer* OPT.
- *Thermocouple in process return* OPT.

EQUIPMENT TYPE

OIL
OPEN TANK

EQUIPMENT IMAGE

KEY DATA

Oil
Fluid

150 ºC
Max. temp.

400/3/50hz
Power supply

CERTIFICATION
Industry 4.0 Ready

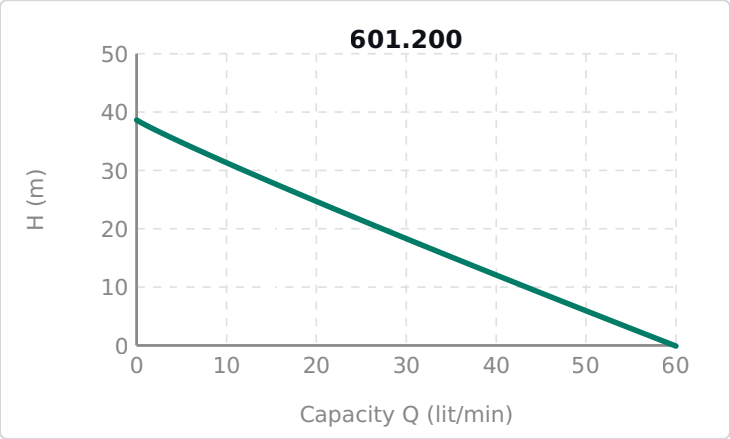
TECHNICAL DATA

PARAMETER	UNIT	SMART 4A
SMART 4A		
Fluid		**Oil**
Maximum temperature	ºC	**150**
PID temperature control heating / cooling		**Yes**
Heating power	kW	**18 – 24 – 30**
Cooling power at 15ºC	kW	**30**
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 pump T2001	inlet / outlet	**1 1/2"**
Hydraulic cooling connections pump T2001	inlet / outlet	**1”**
PCB card	Displays	**TG 121**
Thermocouple type		**J type** PT1000 OPT
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	**55**
Voltage	V/Ph/Hz	**400/3/50hz** 480/3/60hz OPT

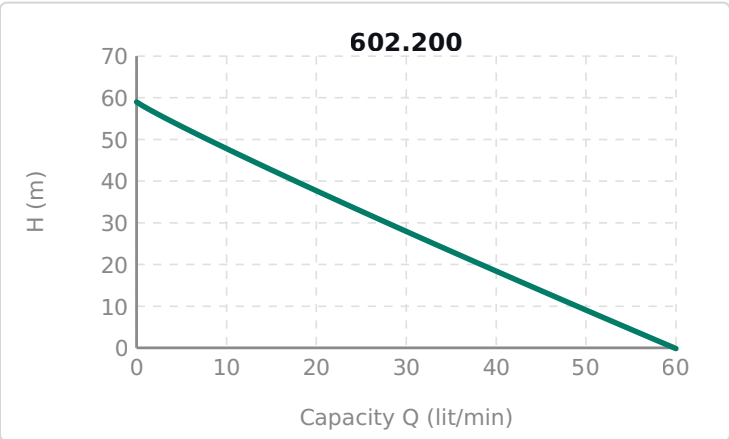
Note: Technical data subject to change. For custom specifications, contact the Marse technical department.

PUMP CURVES

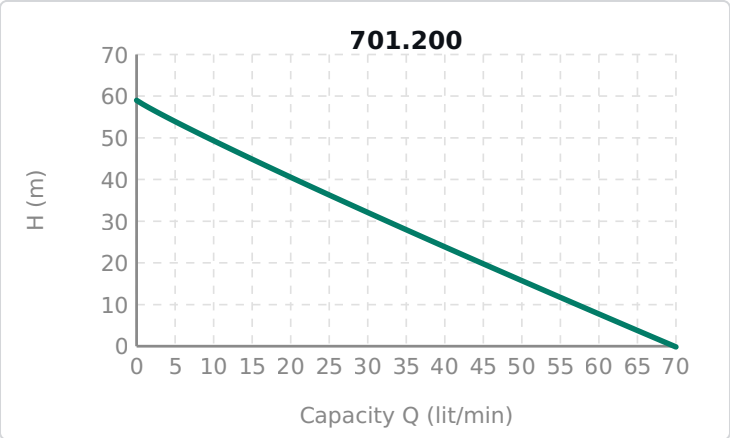
601.200 STANDARD



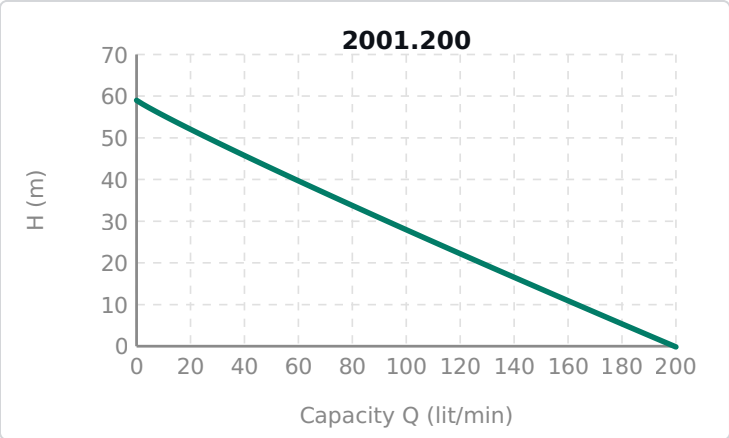
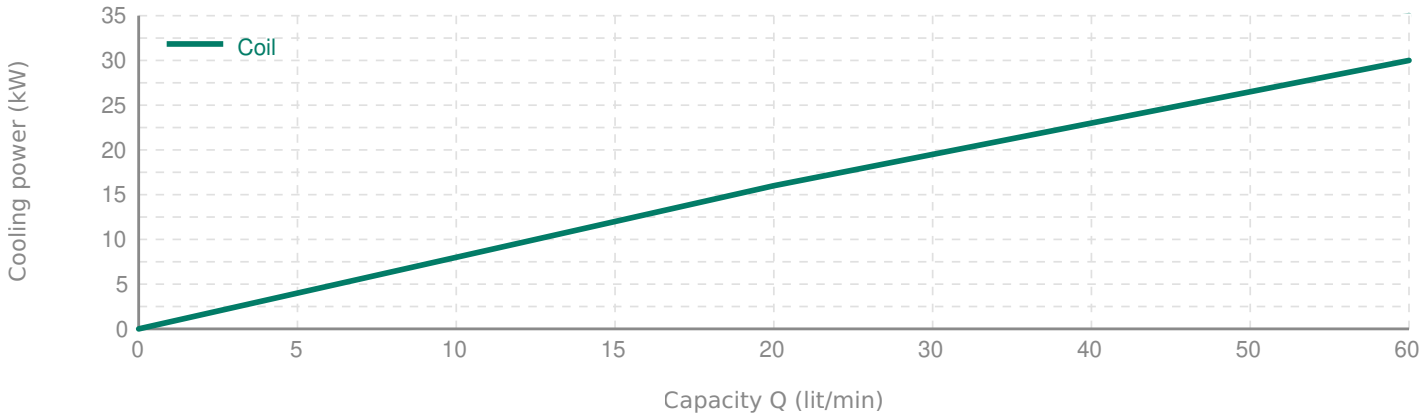
602.200 OPT



701.200 OPT



2001.200 OPT



COOLING CURVES