Feb 27, 2022

# Product data sheet

# HAVSP4T0300P

## Characteristics

Variable speed drive, SMART Pump, 30 kW, 380 V, 3 phase, normal duty

### Main

| | |
|---|---|
| Range of product | SMART-Pump |
| Product or component type | Variable speed drive |
| Product specific application | Pump<br>Fan<br>Chiller |
| Network number of phases | 3 phases |
| [Us] rated supply voltage | 380...440 V - 15...10 % |
| Supply frequency | 50...60 Hz |
| Motor power kW | 30 kW for normal duty |
| Motor power hp | 40 hp for normal duty |
| Maximum transient current | 72 A during 1 min (normal duty)<br>90 A during 1 s (normal duty)<br>108 A during 0 s (normal duty) |
| Asynchronous motor control profile | Sensorless vector control (SVC)<br>Voltage/frequency ratio (V/f) |
| Speed drive output frequency | 0…599 Hz |
| Continuous output current | 60 A |
| EMC filter | Class C3 EMC filter |

### Complementary

| | |
|---|---|
| Product destination | Asynchronous motors |
| Function available | Multi-pump control<br>Dry run protection<br>Energy/flow calculator<br>Frost and condensation protection<br>Pump cleaning<br>Fire override mode<br>Energy saving mode |
| Type of cooling | Fan |
| Communication port protocol | Modbus |
| Regulation loop | Adjustible PID regulator with sleep mode |
| Acceleration and deceleration ramps | Linear adjustable separately from 0.01 to 3600 s |
| Frequency resolution | Digital input: 0.005/50 Hz<br>Analog input: 0.05/50 Hz |
| Analogue input number | 2 |
| Analogue input type | AI1 voltage: 0...10 V, impedance: 100 kOhm, resolution 0.01 V<br>AI1 current: 0...20 mA, impedance: 500 Ohm, resolution 0.02 mA<br>AI2 voltage: 0...10 V, impedance: 100 kOhm, resolution 0.01 V<br>AI2 current: 0...20 mA, impedance: 500 Ohm, resolution 0.02 mA |
| Discrete input number | 5 |

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| | |
|---|---|
| Discrete input type | Programmable (DI1...DI5)<br>Programmable as pulse input (DI5) |
| Analogue output number | 2 |
| Analogue output type | AO1 voltage/current: 0...20 mA or 0...10 V<br>AO2 voltage/current: 0...20 mA or 0...10 V |
| Discrete output number | 3 |
| Discrete output type | configurable relay logic 250 V (5 A) for NO relay output circuit<br>configurable relay logic 250 V (3 A) for NC relay output circuit<br>configurable relay logic 24 V DC (3 A) for NO relay output circuit<br>configurable relay logic 24 V DC (3 A) for NC relay output circuit<br>open collector 9...30 V (50 mA)<br>open collector 9...30 V (50 mA) for pulse output |
| Output frequency | 50 kHz for pulse output at DO2 |
| Display type | 5 digits 7 segments for 38 parameters |
| Device application | Speed control |
| Type of installation | Indoor/outdoor |
| Control type | Manual using keypad<br>Using control terminal<br>Using serial port |
| Device mounting | Wall mounted<br>Enclosure<br>Flange |
| Speed accuracy | +/- 0.1 % of nominal speed |
| Protection type | Hammer effect<br>Overcurrent<br>Overvoltage<br>Undervoltage<br>Overheating<br>Overload<br>Short-circuit |
| Width | 235 mm |
| Height | 370 mm |
| Depth | 235 mm |

## Environment

| | |
|---|---|
| Relative humidity | 0…95 % without condensation |
| Ambient air temperature for storage | -20…60 °C |
| Quality labels | CE |
| Operating altitude | |
| IP degree of protection | IP20 |
| Ambient air temperature for operation | -10…40 °C |
| Environmental characteristic | Dust resistant<br>Corrosive gas free<br>Oil and vapour resistant |
| Vibration resistance | 5.9 m/s² |