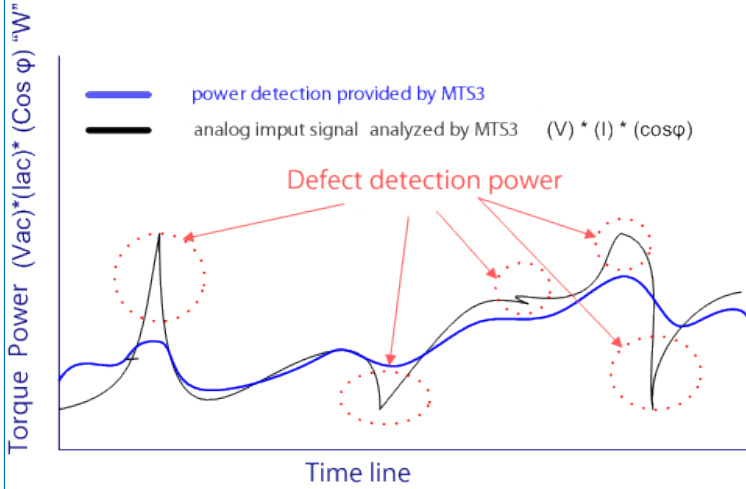


## MTS3 : 3 Motors Strain Sensor

MTS3 Car Wash MOTOR TORQUE SENSOR  
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### Functional Characteristics:

#### Effort Measurements

The electronic device MTS3 was designed to measure the effort of 3 motors, ac three-phase. MTS3 measures voltage, current and power factor of a single winding on each motor, providing a relative torque sense measure.

The measurement allows detection of the motor effort variation, due to the friction of the rotating brushes of a car washing system, when they interact with the car.

Peculiarity of the product is the processing of the measurement of instantaneous detected power: it is sampled, filtered and computed along the brush rotation period. These computation methods arise from years of "on filed" experience.

The magnitudes of voltage, current, phase are read by MTS3 on the following ways:

- **Current** (3 magnitudes): by the use of "wire passing through" current transformers, mounted on outer contour of MTS3 ("TAM1L1", "TAM2L1" and "TAM3L1")
- **Voltage** (1 magnitude): single voltage transformer, of reduced dimensions, contained inside MTS3. ("V1")
- **Phase** (3 magnitudes): detected through the previous stated magnitudes: currents and voltage

The 3 measures of motor strain are made available through the following types of interfaces:

- 3 DAC channels 0-10Vdc
- 1 MODBUS over Ethernet TCP/IP connection

Optional on request and on payment of a surcharge: 1 RS-485 connection with Modbus protocol

#### Temperature Measurement.

Besides the mentioned magnitudes stated above, MTS3 can provide a temperature measurement, through the simple use of an external dedicated temperature probe. The range is  $-20$  to  $80$  °C;  $0,5$ °C resolution. This magnitude is allowable on all the above mentioned interfaces, DAC included.



### CAR WASH POWER SENSOR

Sensibility makes the difference.



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