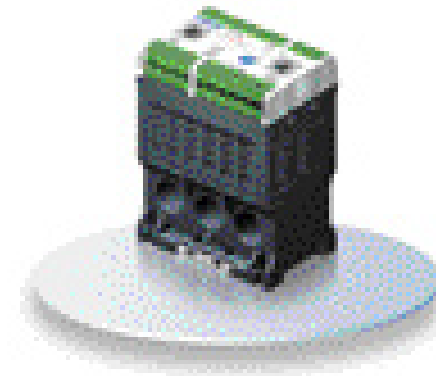


## The efficiency of Telemecanique branded *solutions*

Used in combination, Telemecanique products provide quality solutions, meeting all your *Automation* & *Control* applications requirements.



## A worldwide presence

### Constantly available

- More than 5 000 points of sale in 130 countries.
- You can be sure to find the range of products that are right for you and which complies fully with the standards in the country where they are used.

### Technical assistance wherever you are

- Our technicians are at your disposal to assist you in finding the optimum solution for your particular needs.
- Schneider Electric provides you with all necessary technical assistance, throughout the world.

[www.telemecanique.com](http://www.telemecanique.com)



### Schneider Electric Industries SAS

Head Office  
89, bd Franklin Roosevelt  
92506 Rueil-Malmaison Cedex  
FRANCE  
[www.schneider-electric.com](http://www.schneider-electric.com)

Owing to changes in standards and equipment, the characteristics given in the text and images in this document are not binding until they have been confirmed with us.

Design: Link To Business  
Photos: Schneider Electric  
Print: Imprimerie Fuchey - 21 Array - 135656

*Simply Smart!*

DIA1ED1060902EN © 2006 Schneider Electric - All rights reserved



Motor management system  
**TeSys T**  
Give your motor starters  
a *sixth sense*!





# TeSys T, The sense of protection

TeSys T is an advanced motor management and protection system. It is able to guard against all motor malfunctions: overload, current peak, excessive consumption, etc.

Always attentive to the motor environment, TeSys T combines in harmony the primary protection requirements of a motor with additional protection functionality.  
**With TeSys T, perfect adaptation to all your motor installed base management needs is guaranteed.**

With its outstanding analysis accuracy, TeSys T anticipates failure situations, thus minimizing tripping actions.  
**With TeSys T, you reduce maintenance costs and time.**

Untimely stopping of a process or manufacturing relating to a motor is anticipated.  
Open to all communication protocols, TeSys T is an efficient replacement of all existing relays.

With TeSys T, Schneider Electric, the world leader in motor starters, passes on to you its MCC\* manufacturing know-how. Just as for the entire Tesys range, incorporation of TeSys T in a Low Voltage switchboard is optimised.  
**With TeSys T, you have a system that is extremely easy to implement.**

Thanks to an open language, understandable by all industrial networks, TeSys T warns you only when necessary. Meeting your taste for communication, TeSys T feeds back quality information in real time.  
**With TeSys T, you enhance the operation and safety of your process.**

At all times, you have a clear vision of your system's management. Supervision, monitoring, accurate diagnostic, everything is under control!  
**With TeSys T, you are more efficient.**

The sense of protection, the sense of openness, the sense of performance.  
**With TeSys T, you equip your motor starters with a genuine 6th sense.**



\*Motor Control Center



# TeSys T, The sense of openness

**With TeSys T, you enhance the operation and safety of your process.**

TeSys T covers all motor monitoring and protection needs in industrial installations in which a high degree of availability of production equipment is an essential requirement.

TeSys T is also the most efficient protection solution for sectors relating to our everyday life such as energy (oil, gas, etc.), chemistry, the pharmaceutical industry, treatment and distribution of water, etc.



The motor management system TeSys T is manufactured in conformity with the requirements of the RoHS european directive (Restriction of hazardous Substances)

TeSys T is ideal for use in industrial installations such as iron and steel, cement works, paper mills and raw material extraction.

Incorporated in a MCC\*, TeSys T guarantees the highest possible level of reliability for your installations and equipments:

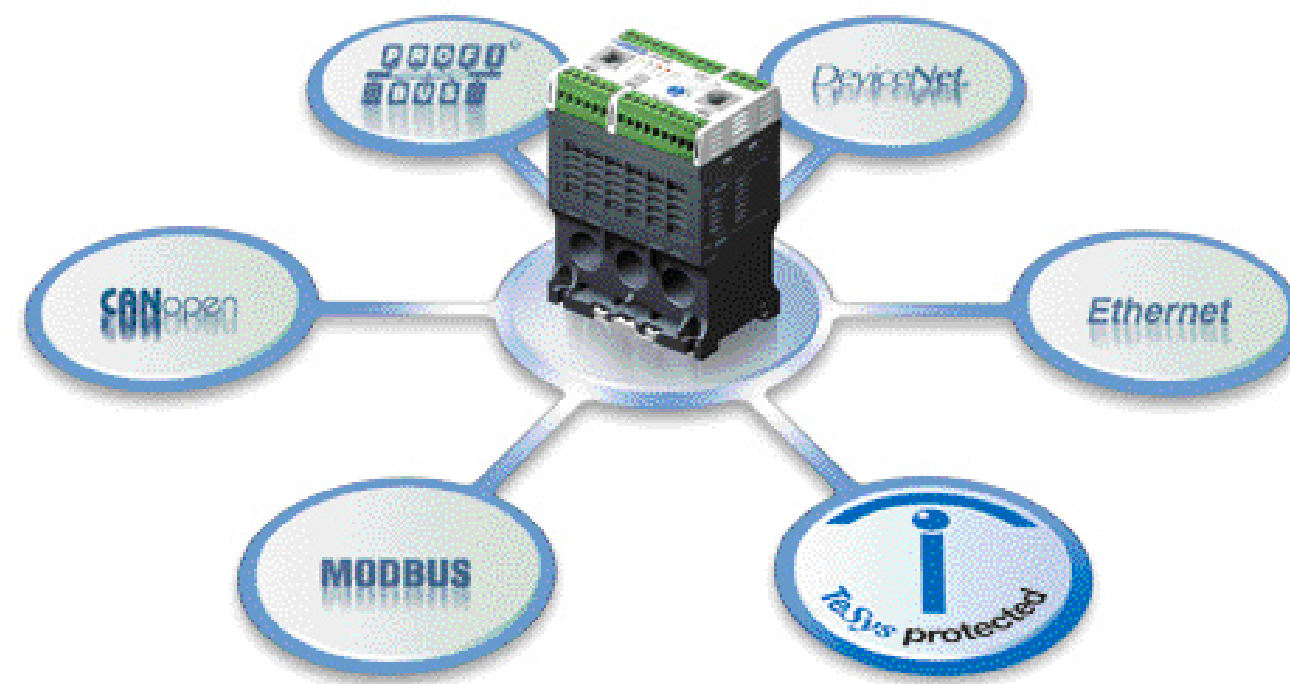
- pumping, ventilation, filtration, etc.
- compressors, mixers, crushers, conveyors, etc.

**TeSys T, an advanced motor management and protection system.**

TeSys T consists of:

- an efficient multi-function protection device, separate from the automation system;
- an operator control unit, for reading and modification of the parameters monitored;
- a configuration software, extremely simple and user-friendly intended for implementation of motor starters equipped with TeSys T.

An expansion module completes the controller functions with voltage measurement and additional logic inputs.



**With TeSys T, you are more efficient!**

The controller is equipped with a communication interface to remotely supervise and control the motor.

**Completely open, TeSys T can be incorporated in all communication buses available on the market: Ethernet, ModBus, CANopen, DeviceNet, Profibus.**

Easily available both locally and remotely, the information required to optimise and monitor your process is now accessible at all times:

- parameter setting and activation of protection devices,
- configuration and management of motor controls,
- motor status monitoring (alarms, tripping),
- data exchange (diagnostic, histories, counters, etc.).



# TeSys T, The sense of performance

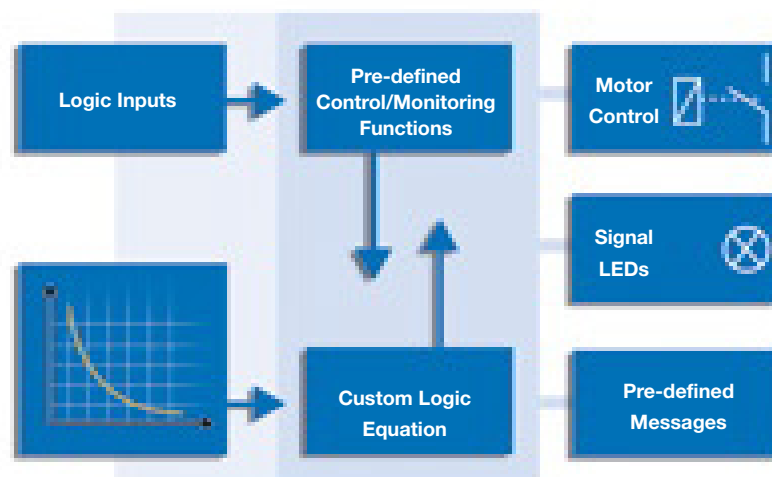
## From pre-programmed motor control functions

Everything has been provided to simplify integration of TeSys T. 5 motor control functions are placed at your disposal to simplify configuration and implementation of the motor starter.

- overload mode
- independent mode
- changeover mode
- 2-step mode
- 2-speed mode

## ... to customisation of a control mode!

The interface and customisation mode allows you to customise motor control. You can utilise logic functions in two languages: function blocks and structured text. This customisation mode is incorporated in the PowerSuite software suite, also used to configure variable speed drives, TeSys U motor starters, etc.



## With TeSys T, you reduce maintenance costs and time

The combination of basic protection functions of the controller and of advanced protection functions with addition of the expansion module guarantees maximum analysis accuracy. Your process is now transparent and tripping minimised.

### Basic protection and monitoring functions

- Thermal overload protection
- Motor temperature protection by probes
- Earth fault protection
- Phase imbalance and loss protection
- Long start protection (stall)
- Jam protection (locked rotor)
- Load variation monitoring
- Phase sequence monitoring, etc.

### Advanced protection and monitoring functions (with Expansion module)

- Voltage measurement
- Power measurement
- CosPhi measurement
- Load shedding, etc.

### Histories

- Operating time
- Motor starts per hour
- Last start time
- Last start max current
- History of the last 5 faults per type

### Statistics

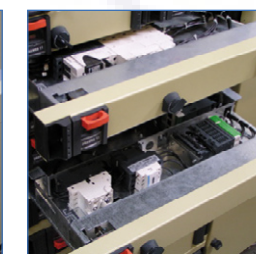
- Faults counter
- Warning counter
- Auto reset counter
- Protection counter
- Diagnostic counter
- Load shedding, lock, fault counters, etc.

### Fault management

- Diagnostic (Motor control)
- Wiring and configuration errors
- Internal (Watchdog, EEPROM, CPU, etc.)
- Communication loss



Equipment with TeSys T motor starter



Equipment with TeSys T and TeSys U motor starters

## With TeSys T, you benefit from the Schneider Electric system offer.

On technical premises and in LV switchboards TeSys T is extremely easy to integrate. Its shape and compact design ensure that TeSys T is naturally used for fixed, disconnectable and draw-out assemblies as per IEC or NEMA standards for international and local applications.

To ensure that you benefit from all the know-how of Schneider Electric, installation systems and complete implementation and cabling files will guide you through perfect integration of TeSys T in the MCCs\*: Okken, Blockset and Model 6.



TeSys T

Motor management system  
**Controllers**



| Type of fieldbus |               |             | Modbus     |               | Profibus DP |               |
|------------------|---------------|-------------|------------|---------------|-------------|---------------|
| Supply voltage   |               |             | 24 VDC     | 100...240 VAC | 24 VDC      | 100...240 VAC |
| References       | Current range | 0.4...8 A   | LTMR08MBD  | LTMR08MFM     | LTMR08PBD   | LTMR08PFM     |
|                  |               | 1.35...27 A | LTMR27MBD  | LTMR27MFM     | LTMR27PBD   | LTMR27PFM     |
|                  |               | 5...100 A   | LTMR100MBD | LTMR100MFM    | LTMR100PBD  | LTMR100PFM    |



| Type of fieldbus |               |             | CANopen    |               | DeviceNet  |               |
|------------------|---------------|-------------|------------|---------------|------------|---------------|
| Supply voltage   |               |             | 24 VDC     | 100...240 VAC | 24 VDC     | 100...240 VAC |
| References       | Current range | 0.4...8 A   | LTMR08CBD  | LTMR08CFM     | LTMR08DBD  | LTMR08DFM     |
|                  |               | 1.35...27 A | LTMR27CBD  | LTMR27CFM     | LTMR27DBD  | LTMR27DFM     |
|                  |               | 5...100 A   | LTMR100CBD | LTMR100CFM    | LTMR100DBD | LTMR100DFM    |

### Extension module



| Type of module |  | 4 additional inputs + voltage measuring |               |
|----------------|--|-----------------------------------------|---------------|
| Inputs voltage |  | 24 VDC                                  | 100...240 VAC |
| References     |  | LTMEV40BD                               | LTMEV40FM     |

### Operator dialogue terminal and software



| Type of terminal |  | Compact display          | Configuration software   |
|------------------|--|--------------------------|--------------------------|
| Description      |  | 4 lines of 20 characters | For Windows 98, 2000, XP |
| Supply voltage   |  | 24 VDC                   | —                        |
| References       |  | XBTN410                  | XBTL1000                 |

TeSys T

Motor management system

Current transformers



| Type of transformer |           | External  |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Operational current | primary   | 100 A     | 200 A     | 400 A     | 800 A     |
|                     | secondary | 1 A       |           |           |           |
| References          |           | LT6CT1001 | LT6CT2001 | LT6CT4001 | LT6CT8001 |

Earth fault toroids

| Type of toroid    | Closed |      |       |       |       |       | Split |       |
|-------------------|--------|------|-------|-------|-------|-------|-------|-------|
| Maximum current   | 65 A   | 85 A | 160 A | 250 A | 400 A | 630 A | 85 A  | 250 A |
| Internal diameter | Ø 30   | Ø 50 | Ø 80  | Ø 120 | Ø 200 | Ø 300 | Ø 46  | Ø 110 |
| References        | TA30   | PA50 | IA80  | MA120 | SA200 | GA300 | POA   | GOA   |

PTC thermistor probe

| Type of probe         |  | Triple   |          |          |          |          |          |          |          |
|-----------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Operating temperature |  | 90°C     | 110°C    | 120°C    | 130°C    | 140°C    | 150°C    | 160°C    | 170°C    |
| References            |  | DA1TT090 | DA1TT110 | DA1TT120 | DA1TT130 | DA1TT140 | DA1TT150 | DA1TT160 | DA1TT170 |

Accessories <sup>(1)</sup>



| Type of accessory |  | Connecting cable              |        |        |
|-------------------|--|-------------------------------|--------|--------|
|                   |  | Controller / Extension module |        |        |
| Length of cable   |  | 0.04 m                        | 0.3 m  | 1 m    |
| References        |  | LTMCC004                      | LU9R03 | LU9R10 |



| Type of accessory |  | Connecting cable     | Connection kit |
|-------------------|--|----------------------|----------------|
|                   |  | Controller / Display | PC serial port |
| Length of cable   |  | 2.5 m                | –              |
| References        |  | XBTZ938              | VW3A8106       |

(1) For other connection accessories, see [www.telemecanique.com](http://www.telemecanique.com)