

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Motor Starter**with type designation(s)
Tesys T

Issued to

Schneider Electric Industries SAS
EYBENS, France

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Rated Voltage (V) 600 / 690 AC****Rated Current (A) 0.4 to 100 (810 w/ external current transformer)****Frequency (Hz) 50 - 60**This Certificate is valid until **2021-10-04**.Issued at **Høvik** on **2016-10-05**DNV GL local station: **Marseille**Approval Engineer: **Nicolay Horn**for **DNV GL**

Andreas Kristoffersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Name and place of manufacturer

Wuxi Pro-face Electronics CO.; Ltd
51-A National Hi-Tech Industrial Developing Zone, Wuxi, Jiang Su,
China

Product description

Motor management controller with communication module Modbus or Profibus DP or DeviceNet or CANOpen or Ethernet.

Technical data:

Controller:

Reference	Operational current		Communication module			Supply voltage	
	Code	Range	Code	Network	Protocol	Code	Input voltage
LTMR	08	0.4 - 8 A	M	RS485	Modbus	FM	100 - 240 V AC (50 - 60 Hz)
			E	Ethernet	Modbus/TCP EtherNet/IP		
	27	1.35 - 27 A	P	RS485	Profibus DP	BD	24 V DC
	100	5 - 100 A	D	CAN	Device Net		
			C	CAN	CANOpen		

Extension module (with voltage measurement on the 3 phases):

No	Reference	Description	Main characteristics
01	LTMEV40BD	4 Inputs -0 Outputs 24Vdc	Inputs $U_i = 24\text{Vdc}$ $U_{imp} = 0.8\text{kV}$
02	LTMEV40FM	4 Inputs -0 Outputs 100-240Vac	Inputs $U_i = 250\text{Vac}$ $U_{imp} = 4\text{kV}$

Insulation of main circuit (U_i):	600 / 690 V AC*
Rated impulse voltage (U_{imp}):	6 kV (main circuit)
Frequency:	50 - 60 Hz
Maximum operation voltage (U_e):	600 / 690 V AC
Operational current (I_e):	Min. 0.4 A, Max 100 A**
Prospective short circuit current (" r "):	1kA, 3 kA, 5 kA
Conditional short circuit current (I_q):	80 kA
Ambient temperature range:	- 20 °C to + 60 °C
Adjustable trip classes:	5 - 10 - 15 - 20 - 25 - 30

* See Application / limitation

** Up to 810 A when used with external current transformer

Application/Limitation

The Tesys T Motor management controller is regarded as a component only. When the unit is used for control / protection purposes for motors no product certificate is required.

If the unit is used for other control purposes a product certificate acc. to Pt.4 Ch.8 Sec.1 and Pt.4 Ch.9 Sec.1 item 1. 2.2 can be required. Correct configuration and set up for each delivery to be tested during commissioning after installation.

With $U_{imp} = 6\text{ kV}$ the max. rated voltage is 600 V when used in a IT (ship) net. Applicable for use in applications with directly earthed systems with rated voltage of 400/690 V.

Installation to be in accordance with the manufacturer's instructions.

Type Approval documentation

Tests carried out

Dry Heat Test, Damp Heat Test, Low temperature Test, Vibration test and EMC. Type Tests according to IEC60947-4-1.

Marking of product

Telemecanique and / or Schneider Electric - Type designation.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE