

# LTMR100MBD

motor controller LTMR TeSys T - 24 V DC 100 A for Modbus



## Main

Range	TeSys
Product name	TeSys T
Device short name	LTMR
Product or component type	Motor controller
Device application	Equipment monitoring and control
Measurement current	5...100 A
[Us] rated supply voltage	24 V DC
Current consumption	56...127 mA
Supply voltage limits	20.4...26.24 V DC
Communication port protocol	Modbus
Bus type	Modbus 2-wire RS 485 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, RJ45 with 2 shielded twisted pairs Modbus 2-wire RS 485 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, terminal block with 2 shielded twisted pairs

## Complementary

[Ui] rated insulation voltage	690 V conforming to UL 508 690 V conforming to CSA C22.2 No 14 690 V conforming to EN/IEC 60947-1
[Uimp] rated impulse withstand voltage	6 kV for current or voltage measurement circuit conforming to EN/IEC 60947-4-1 0.8 kV for communication circuit conforming to EN/IEC 60947-4-1 0.8 kV for supply, inputs and outputs conforming to EN/IEC 60947-4-1
Short-circuit withstand	100 kA conforming to EN/IEC 60947-4-1
Associated fuse rating	0.5 A gG for control circuit 4 A gG for output
Protection type	Earth-leakage protection Phase failure Reverse polarity protection Thermal overload protection Thermal protection Overload Phase unbalance Locked rotor Overload (long time) Load fluctuation Power factor variation
Network and machine diagnosis type	Phase fault and earth fault trip counters Remaining operating time before overload tripping Running hours counter/operating time Starting current and time Waiting time after overload tripping Fault recording Event recording Trip context information Trip history information Motor control command recording
Logic input number	6
Input current	7 mA
Current state 0 guaranteed	Logic input : < 5 V and <= 15 mA for 5 ms
Current state 1 guaranteed	Logic input : < 15 V and 2...15 mA for 15 ms
Maximum operating frequency	2 Hz
Load current	5 A at 250 V AC for logic output 5 A at 30 V DC for logic output

The information provided in this documentation contains general descriptions and/or technical characteristics of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Permissible power	480 VA (AC-15), I <sub>e</sub> = 2 A, 500000 cycles (output) 30 W (DC-13), I <sub>e</sub> = 1.25 A, 500000 cycles (output)
Operating rate	1800 cyc/h
Contacts type and composition	1 NO + 1 NC fault signal 3 NO
Metering type	Earth-fault current Phase current I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub> RMS Temperature Average current I <sub>avg</sub> Imbalance current
Measurement accuracy	+/- 30 min/year internal clock 0,02 current 0,02 temperature 5...15 % earth fault current internal measurement (for current > 0.3 A) 1 % voltage (100...830 V) 5 % active and reactive power 5 % earth fault current external measurement (< 5 % or 0.01 A) 3 % power factor (cos φ > 0.6)
Overvoltage category	III
Connection pitch	5.08 mm
Connections - terminals	Connector, 1 flexible cable with cable end 0.25...2.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 1 flexible cable without cable end 0.2...2.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 1 flexible cable without cable end 0.25...2.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 1 solid cable without cable end 0.2...2.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable with cable end 0.2...1 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable without cable end 0.2...1.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable without cable end 0.5...1.5 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit Connector, 2 solid cable without cable end 0.2...1 mm <sup>2</sup> /AWG 24...AWG 14 for control circuit
Tightening torque	0.5...0.6 N.m, 3 mm flat screwdriver for control circuit
Pollution degree	3
Electromagnetic compatibility	<ul style="list-style-type: none"> <li>● electrostatic discharge 3 (8 kV air, 6 kV contact), conforming to EN/IEC 61000-4-2</li> <li>● fast transients immunity test other circuits level 3 (2 kV), conforming to EN/IEC 61000-4-4</li> <li>● fast transients immunity test on supply and relay outputs level 4 (4 kV), conforming to EN/IEC 61000-4-4</li> <li>● conducted RF disturbances (10 V), conforming to EN/IEC 61000-4-6</li> <li>● surges common mode (1 kV) control circuit, conforming to EN/IEC 61000-4-5</li> <li>● surges serial mode (1 kV) control circuit, conforming to EN/IEC 61000-4-5</li> <li>● surges common mode (2 kV) communication, conforming to EN/IEC 61000-4-5</li> <li>● radiated RF fields 3 (10 V/m), conforming to EN/IEC 61000-4-3</li> <li>● voltage dips and interruptions immunity test (70 %, 500 ms), conforming to EN/IEC 61000-4-11</li> <li>● surges serial mode (0.5 kV) temperature sensor, conforming to EN/IEC 61000-4-5</li> <li>● surges common mode (1 kV) temperature sensor, conforming to EN/IEC 61000-4-5</li> <li>● surges serial mode (2 kV) relay outputs and supply, conforming to EN/IEC 61000-4-5</li> <li>● surges common mode (4 kV) relay outputs and supply, conforming to EN/IEC 61000-4-5</li> </ul>
Width	91 mm
Height	61 mm
Depth	122.5 mm
Product weight	0.53 kg
Web services	Web server
Compatibility code	LTMR

## Environment

standards	EN 60947-4-1 IACS E10 IEC 60947-4-1 UL 508 CSA C22.2 No 14
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product certifications	ABS ATEX BV CCC CSA C-Tick DNV GL KERI LROS (Lloyds register of shipping) NOM RINA RMRoS UL EAC
protective treatment	12 x 24 hour cycles conforming to EN/IEC 60068-2-30 48 h conforming to EN/IEC 60070-2-11 TH conforming to EN/IEC 60068
fire resistance	650 °C conforming to EN/IEC 60695-2-12 960 °C conforming to UL 94
ambient air temperature for operation	-20...60 °C
ambient air temperature for storage	-40...80 °C
operating altitude	<= 2000 m without derating
mechanical robustness	<ul style="list-style-type: none"> <li>● shocks half sine wave acceleration (15 Gn for 11 ms) conforming to EN/IEC 60068-2-27</li> <li>● vibrations mounted on symmetrical rail (1 Gn, 5...300 Hz) conforming to EN/IEC 60068-2-6</li> <li>● vibrations plate mounted (4 Gn, 5...300 Hz) conforming to EN/IEC 60068-2-6</li> </ul>
IP degree of protection	IP20

### Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0501 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available