

# Product data sheet

Specifications



Motor controller, TeSys T, Motor Management, Profibus DP, 6 logic inputs, 3 relay logic outputs, 5 to 100A, 24VDC

LTMR100PBD

## 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	Profibus DP
Bus type	Profibus DP polarised 2-wire RS485 interface, addressing 1...125, transmission rate 9.6 kbit/s...12 Mbit/s, SUB-D 9 with 2 shielded twisted pairs, type A Profibus DP polarised 2-wire RS485 interface, addressing 1...125, transmission rate 9.6 kbit/s...12 Mbit/s, terminal block with 2 shielded twisted pairs, type A

## Complementary

[Ui] rated insulation voltage	690 V conforming to EN/IEC 60947-1 690 V conforming to CSA C22.2 No 14 690 V conforming to UL 508
[Uimp] rated impulse withstand voltage	6 kV current or voltage measurement circuit conforming to EN/IEC 60947-4-1 0.8 kV communication circuit conforming to EN/IEC 60947-4-1 0.8 kV 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	4 A gG for output 0.5 A gG for control circuit
Protection type	Load fluctuation Reverse polarity protection Locked rotor Thermal protection Overload (long time) Overload Power factor variation Earth-leakage protection Thermal overload protection Phase unbalance Phase failure
Network and machine diagnosis type	Trip context information Event recording Waiting time after overload tripping Running hours counter/operating time Remaining operating time before overload tripping Fault recording

	Motor control command recording Trip history information Phase fault and earth fault trip counters Starting current and time
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 output switching frequency	2 Hz
Load current	5 A at 250 V AC for logic output 5 A at 30 V DC for logic output
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)
Maximum operating rate	1800 cyc/h
Contacts type and composition	1 NO + 1 NC fault signal 3 NO
Metering type	Imbalance current Temperature Average current I <sub>avg</sub> Phase current I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub> RMS Earth-fault current
Measurement accuracy	5...15 % earth fault current internal measurement 1 % voltage (100...830 V) 3 % power factor 5 % earth fault current external measurement +/- 30 min/year internal clock 0,02 temperature 5 % active and reactive power 0,02 current
Overvoltage category	III
Connection pitch	5.08 mm
Connections - terminals	Control circuit: connector 1 cable(s) 0.25...2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end Control circuit: connector 1 cable(s) 0.2...2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible without cable end Control circuit: connector 1 cable(s) 0.25...2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible without cable end Control circuit: connector 1 cable(s) 0.2...2.5 mm <sup>2</sup> (AWG 24...AWG 14) solid without cable end Control circuit: connector 2 cable(s) 0.2...1 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end Control circuit: connector 2 cable(s) 0.2...1.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible without cable end Control circuit: connector 2 cable(s) 0.5...1.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible without cable end Control circuit: connector 2 cable(s) 0.2...1 mm <sup>2</sup> (AWG 24...AWG 14) solid without cable end
Tightening torque	Control circuit: 0.5...0.6 N.m flat screwdriver 3 mm
Pollution degree	3
Electromagnetic compatibility	Electrostatic discharge, 3, 8 kV air, 6 kV contact, conforming to EN/IEC 61000-4-2 Radiated RF fields, 3, 10 V/m, conforming to EN/IEC 61000-4-3 Fast transients immunity test (other circuits), level 3, 2 kV, conforming to EN/IEC 61000-4-4 Fast transients immunity test (on supply and relay outputs), level 4, 4 kV, conforming to EN/IEC 61000-4-4 Voltage dips and interruptions immunity test, 70 %, 500 ms, conforming to EN/IEC 61000-4-11 Conducted RF disturbances, 10 V, conforming to EN/IEC 61000-4-6 Temperature sensor: surges (serial mode), 0.5 kV, conforming to EN/IEC 61000-4-5 Temperature sensor: surges (common mode), 1 kV, conforming to EN/IEC 61000-4-5 Control circuit: surges (serial mode), 1 kV, conforming to EN/IEC 61000-4-5 Control circuit: surges (common mode), 1 kV, conforming to EN/IEC 61000-4-5 Communication: surges (common mode), 2 kV, conforming to EN/IEC 61000-4-5 Relay outputs and supply: surges (serial mode), 2 kV, conforming to EN/IEC 61000-4-5 Relay outputs and supply: surges (common mode), 4 kV, conforming to EN/IEC 61000-4-5
Width	91 mm
Height	61 mm
Depth	122.5 mm
Net weight	0.53 kg
Web services	Web server
Compatibility code	LTMR

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 IEC 60947-4-1 IACS E10 UL 508
Product certifications	CSA C-Tick DNV RMRoS ATEX EAC RINA CCC KERI GL NOM UL LROS (Lloyds register of shipping) ABS BV
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	Vibrations mounted on symmetrical rail: 1 Gn, 5...300 Hz conforming to EN/IEC 60068-2-6 Vibrations plate mounted: 4 Gn, 5...300 Hz conforming to EN/IEC 60068-2-6 Shocks half sine wave acceleration: 15 Gn for 11 ms conforming to EN/IEC 60068-2-27
IP degree of protection	IP20

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.2 cm
Package 1 Width	10.0 cm
Package 1 Length	13.5 cm
Package 1 Weight	522.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.598 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>

Product out of China RoHS scope. Substance declaration for your information

RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
Halogen content performance	Halogen free plastic parts product

Contractual warranty

Warranty	18 months
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Recommended replacement(s)