

# LTMR100MBD

Motor Management, TeSys T, motor controller, Modbus, 6 logic inputs, 3 logic outputs, 5 to 100A, 24VDC



## 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 1...247 1.2...19.2 kbit/s, RJ45 2 shielded twisted pairs Modbus 2-wire RS 485 1...247 1.2...19.2 kbit/s, terminal block 2 shielded twisted pairs

## Complementary

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

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Load current	5 A 250 V AC logic output 5 A 30 V DC 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	Phase current I1, I2, I3 RMS Temperature Average current I <sub>avg</sub> Earth-fault current Imbalance 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	0.20 in (5.08 mm)
Connections - terminals	Control circuit connector 1 0.00...0.00 in <sup>2</sup> (0.25...2.5 mm <sup>2</sup> ) AWG 24...AWG 14)flexible with cable end Control circuit connector 1 0.00...0.00 in <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) AWG 24...AWG 14)flexible without cable end Control circuit connector 1 0.00...0.00 in <sup>2</sup> (0.25...2.5 mm <sup>2</sup> ) AWG 24...AWG 14)flexible without cable end Control circuit connector 1 0.00...0.00 in <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) AWG 24...AWG 14)solid without cable end Control circuit connector 2 0.00...0.00 in <sup>2</sup> (0.2...1 mm <sup>2</sup> ) AWG 24...AWG 14)flexible with cable end Control circuit connector 2 0.00...0.00 in <sup>2</sup> (0.2...1.5 mm <sup>2</sup> ) AWG 24...AWG 14)flexible without cable end Control circuit connector 2 0.00...0.00 in <sup>2</sup> (0.5...1.5 mm <sup>2</sup> ) AWG 24...AWG 14)flexible without cable end Control circuit connector 2 0.00...0.00 in <sup>2</sup> (0.2...1 mm <sup>2</sup> ) AWG 24...AWG 14)solid without cable end
Tightening torque	Control circuit 4.43...5.31 lbf.in (0.5...0.6 N.m) flat 0.12 in (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	3.58 in (91 mm)
Height	2.40 in (61 mm)
Depth	4.82 in (122.5 mm)
Net Weight	1.17 lb(US) (0.53 kg)
Web services	Web server
Compatibility code	LTMR

## Environment

Standards	IACS E10 CSA C22.2 No 14 EN 60947-4-1 UL 508 IEC 60947-4-1
Product Certifications	NOM[RETURN]RMRoS[RETURN]DNV[RETURN]C-tick[RETURN]RINA[RETURN]CSA[RETURN]BV[RETURN]GL[RETURN]KERI[RETURN]EAC[RETURN]ABS[RETURN]JUL[RETURN]CCC[RETURN]ATEX
Protective treatment	12 x 24 hour cycles EN/IEC 60068-2-30 48 h EN/IEC 60070-2-11 TH EN/IEC 60068
Fire resistance	1202 °F (650 °C) EN/IEC 60695-2-12 1760 °F (960 °C) UL 94
Ambient air temperature for operation	-4...140 °F (-20...60 °C)
Ambient Air Temperature for Storage	-40...176 °F (-40...80 °C)
Operating altitude	<= 6561.68 ft (2000 m) without derating
Mechanical robustness	Vibrations mounted on symmetrical rail1 Gn, 5...300 Hz EN/IEC 60068-2-6 Vibrations plate mounted4 Gn, 5...300 Hz EN/IEC 60068-2-6 Shocks half sine wave acceleration15 Gn for 11 ms EN/IEC 60068-2-27
IP Degree of Protection	IP20

## Ordering and shipping details

Category	22338-SOLID STATE OVERLOAD RELAYS
Discount Schedule	I12
GTIN	3389119404662
Returnability	No
Country of origin	CN

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.80 in (7.1 cm)
Package 1 Width	3.94 in (10.0 cm)
Package 1 Length	5.31 in (13.5 cm)
Package 1 Weight	18.31 oz (519.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	12.27 lb(US) (5.564 kg)

## Offer Sustainability

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

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PVC free	Yes
Halogen content performance	Halogen free plastic parts product

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### Contractual warranty

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Warranty	18 months
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