

# LTMR100MFM

Motor Management, TeSys T, motor controller, Modbus, 6 logic inputs, 3 logic outputs, 5 to 100A, 100 to 240 VAC



## 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	100...240 V AC 50/60 Hz
Current Consumption	8...62.8 mA
Supply voltage limits	93.5...264 V AC
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	4 KV supply, inputs and outputs EN/IEC 60947-4-1 6 KV current or voltage measurement circuit EN/IEC 60947-4-1 0.8 kV communication circuit EN/IEC 60947-4-1
Short-circuit withstand	100 kA EN/IEC 60947-4-1
Associated fuse rating	4 A gG output 0.5 A gG control circuit
Protection Type	Load fluctuation Earth-leakage protection Overload (long time) Overload Locked rotor Thermal protection Thermal overload protection Power factor variation Reverse polarity protection Phase failure Phase unbalance
Network and machine diagnosis type	Motor control command recording Starting current and time Trip history information Phase fault and earth fault trip counters Running hours counter/operating time Remaining operating time before overload tripping Fault recording Trip context information Event recording Waiting time after overload tripping
Logic input number	6
Input current	3.1 MA 100 V 7.5 mA 240 V
Current state 0 guaranteed	Logic input 0...40 V <= 15 mA 25 ms
Current state 1 guaranteed	Logic input 79...264 V >= 2 mA 25 ms

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Maximum output switching frequency	2 Hz
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	Temperature Earth-fault current Average current I <sub>avg</sub> Imbalance current Phase current I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub> RMS
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)EN/IEC 61000-4-2) Radiated RF fields, 3 10 V/m)EN/IEC 61000-4-3) Fast transients immunity test, level 3 2 kV)EN/IEC 61000-4-4) Fast transients immunity test, level 4 4 kV)EN/IEC 61000-4-4) Voltage dips and interruptions immunity test 70 %, 500 ms)EN/IEC 61000-4-11) Conducted RF disturbances 10 V)EN/IEC 61000-4-6) Surges 0.5 kV)EN/IEC 61000-4-5) Surges 1 kV)EN/IEC 61000-4-5) Surges 1 kV)EN/IEC 61000-4-5) Surges 2 kV)EN/IEC 61000-4-5) Surges 2 kV)EN/IEC 61000-4-5) Surges 4 kV)EN/IEC 61000-4-5) Surges 2 kV)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 IEC 60947-4-1 UL 508 EN 60947-4-1 CSA C22.2 No 14
Product Certifications	LROS (Lloyds register of shipping) UL ABS ATEX EAC CCC BV RINA DNV C-tick RMRoS CSA GL NOM KERI
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	3389119404679
Nbr. of units in pkg.	1
Package weight(Lbs)	18.91 oz (536 g)
Returnability	Yes
Country of origin	CN

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.83 in (7.2 cm)
Package 1 width	3.94 in (10 cm)
Package 1 Length	5.35 in (13.6 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Weight	12.32 lb(US) (5.586 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

## 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
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</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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