

# LTMR100MFM

motor controller LTM R TeSys T - 100..240 V  
AC 100 A for Modbus



## Main

Commercial Status	Commercialised
Range of product	TeSys T
Device short name	LTMR
Product or component type	Motor controller
Communication port protocol	Modbus
Control circuit voltage	100...240 V AC
Current range	5...100 A
[Ue] rated operational voltage	93.5...264 V AC
Input type	Logic input
Bus type	Modbus 2-wire RS 485 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, terminal block with 2 shielded twisted pairs Modbus 2-wire RS 485 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, RJ45 with 2 shielded twisted pairs

## Complementary

Logic input number	6
Discrete output function	1 NO + 1 NC fault signalling 3 NO
Protection type	GG fuse 0.5 A for control circuit GG fuse 4 A for output
Typical current consumption	56...127 mA, 50/60 Hz
Connection pitch	5.08 mm
Connections - terminals	Connector, 2 solid cable without cable end 0.2...1 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 2 flexible cable without cable end 0.5...1.5 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 2 flexible cable without cable end 0.2...1.5 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 2 flexible cable with cable end 0.2...1 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 1 solid cable without cable end 0.2...2.5 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 1 flexible cable without cable end 0.25...2.5 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 1 flexible cable without cable end 0.2...2.5 mm <sup>2</sup> /AWG 24...14 for control circuit Connector, 1 flexible cable with cable end 0.25...2.5 mm <sup>2</sup> /AWG 24...14 for control circuit
Tightening torque	0.5...0.6 N.m, 3 mm flat screwdriver for control circuit
[Ui] rated insulation voltage	690 V, category III (degree of pollution: 3) CSA C22.2 No 14 certified conforming to EN/IEC 60947-1
[Uimp] rated impulse withstand voltage	0.8 kV for communication circuit conforming to EN/IEC 60947-4-1 6 kV for current or voltage measurement circuit conforming to EN/IEC 60947-4-1 4 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
Input current	7.5 mA at 240 V 3.1 mA at 100 V
Input voltage	79...264 V at state 1 0...40 V at state 0
Input current limits	>= 2 mA at state 1 <= 15 mA at state 0

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance 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.

Load current	5 A at 30 V DC for logic output 5 A at 250 V AC for logic output
Permissible power	30 W (DC-13), $I_e = 1.25$ A, 500000 cycles (output) 480 VA (AC-15), $I_e = 2$ A, 500000 cycles (output)
Maximum operating frequency	2 Hz
Operating rate	1800 cyc/h
Response time	25 ms at state 1 for logic input 25 ms at state 0 for logic input
Measurement accuracy	5 % earth fault current external measurement (< 5 % or 0.01 A) 5 % active and reactive power 3 % power factor ( $\cos \varphi > 0.6$ ) 1 % voltage (100...830 V) 0,02 temperature 0,02 current 5...15 % earth fault current internal measurement (for current > 0.3 A) +/- 30 min/year internal clock
Width	91 mm
Height	61 mm
Depth	122.5 mm
Product weight	0.53 kg

## Environment

Immunity to voltage dips	70 % of U for 500 ms conforming to EN/IEC 61000-4-11
Standards	EN 60947-4-1 IACS E10 IEC 60947-4-1 UL 508 CSA C22.2 No 14
Product certifications	ABS ATEX BV CCC CSA C-Tick DNV GL GOST KERI LROS (Lloyds register of shipping) NOM RINA RMRoS UL
Protective treatment	TH conforming to EN/IEC 60068 48 h conforming to EN/IEC 60070-2-11 12 x 24 hour cycles conforming to EN/IEC 60068-2-30
Ambient air temperature for operation	-40...80 °C (storage) -20...60 °C (operation)
Fire resistance	960 °C conforming to UL 94 650 °C conforming to EN/IEC 60695-2-12
Shock resistance	15 gn (half sine wave, 11 ms) conforming to EN/IEC 60068-2-27
Vibration resistance	4 gn (f = 5...300 Hz) plate mounted conforming to EN/IEC 60068-2-6 1 gn (f = 5...300 Hz) mounted on symmetrical rail conforming to EN/IEC 60068-2-6
Resistance to electrostatic discharge	8 kV, level 3 (in open air) conforming to EN/IEC 61000-4-2 6 kV, level 3 (on contact) conforming to EN/IEC 61000-4-2
Resistance to radiated fields	10 V/m, level 3 conforming to EN/IEC 61000-4-3
Resistance to fast transients	4 kV, level 4 (on supply and relay outputs) conforming to EN/IEC 61000-4-4 2 kV, level 3 (other circuits) conforming to EN/IEC 61000-4-4
Immunity to radioelectric fields	10 V, level 3 conforming to EN/IEC 61000-4-6
Non-dissipating shock wave	4 kV (common mode) for relay outputs and supply conforming to EN/IEC 61000-4-5 2 kV (serial mode) for relay outputs and supply conforming to EN/IEC 61000-4-5 2 kV (common mode) for control circuit conforming to EN/IEC 61000-4-5 2 kV (common mode) for communication conforming to EN/IEC 61000-4-5 1 kV (serial mode) for control circuit conforming to EN/IEC 61000-4-5 1 kV (common mode) for temperature sensor conforming to EN/IEC 61000-4-5 0.5 kV (serial mode) for temperature sensor conforming to EN/IEC 61000-4-5

## Contractual warranty

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Period	18 months
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