Product data sheet
Characteristics

LTMR100PBD
motor controller LTM R TeSys T - 24 V DC 100 A for Profibus DP



Main

Range of product	TeSys T
Device short name	LTMR
Product or component type	Motor controller
Communication port protocol	Profibus DP
Control circuit voltage	24 V DC
Current range	5...100 A
[Ue] rated operational voltage	20.4...26.24 V DC
Input type	Logic input
Bus type	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 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

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
Connection pitch	5.08 mm
Connections - terminals	Connector, 2 solid cable without cable end 0.2...1 mm² /AWG 24...14 for control circuit Connector, 2 flexible cable without cable end 0.5...1.5 mm² /AWG 24...14 for control circuit Connector, 2 flexible cable without cable end 0.2...1.5 mm² /AWG 24...14 for control circuit Connector, 2 flexible cable with cable end 0.2...1 mm² /AWG 24...14 for control circuit Connector, 1 solid cable without cable end 0.2...2.5 mm² /AWG 24...14 for control circuit Connector, 1 flexible cable without cable end 0.25...2.5 mm² /AWG 24...14 for control circuit Connector, 1 flexible cable without cable end 0.2...2.5 mm² /AWG 24...14 for control circuit Connector, 1 flexible cable with cable end 0.25...2.5 mm² /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 supply, inputs and outputs conforming to EN/IEC 60947-4-1 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
Short-circuit withstand	100 kA conforming to EN/IEC 60947-4-1
Input current	7 mA
Input voltage	< 5 V at state 0 < 15 V at state 1
Input current limits	2...15 mA at state 1 <= 15 mA at state 0
Load current	5 A at 30 V DC for logic output 5 A at 250 V AC for logic output

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Permissible power	30 W (DC-13), Ie = 1.25 A, 500000 cycles (output) 480 VA (AC-15), Ie = 2 A, 500000 cycles (output)
Maximum operating frequency	2 Hz
Operating rate	1800 cyc/h
Response time	5 ms at state 0 for logic input 15 ms at state 1 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 φ > 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 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 1 kV (common mode) for control circuit conforming to EN/IEC 61000-4-5 0.5 kV (serial mode) for temperature sensor conforming to EN/IEC 61000-4-5

Contractual warranty

Period	18 months