Product data sheet
Characteristics

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 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, RJ45 with 2 shielded twisted pairs Modbus 2-wire RS 485 interface, addressing 1...247, transmission rate 1.2...19.2 kbit/s, terminal block with 2 shielded twisted pairs

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	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 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), Ie = 2 A, 500000 cycles (output) 30 W (DC-13), Ie = 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 Iavg 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	5.08 mm
Connections - terminals	Control circuit: connector 1 cable(s) 0.25…2.5 mm² (AWG 24...AWG 14) flexible with cable end Control circuit: connector 1 cable(s) 0.2…2.5 mm² (AWG 24...AWG 14) flexible without cable end Control circuit: connector 1 cable(s) 0.25…2.5 mm² (AWG 24...AWG 14) flexible without cable end Control circuit: connector 1 cable(s) 0.2…2.5 mm² (AWG 24...AWG 14) solid without cable end Control circuit: connector 2 cable(s) 0.2…1 mm² (AWG 24...AWG 14) flexible with cable end Control circuit: connector 2 cable(s) 0.2…1.5 mm² (AWG 24...AWG 14) flexible without cable end Control circuit: connector 2 cable(s) 0.5…1.5 mm² (AWG 24...AWG 14) flexible without cable end Control circuit: connector 2 cable(s) 0.2…1 mm² (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
Product weight	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 RMRoS DNV C-Tick RINA CSA BV GL KERI EAC LROS (Lloyds register of shipping) ABS UL CCC ATEX
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	7.1 cm
Package 1 Width	10.0 cm
Package 1 Length	13.5 cm
Package 1 Weight	519.0 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	5.564 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

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