Product data sheet
Characteristics

LTMR100DFM
motor controller LTMR TeSys T - 100..240 V AC 100 A for DeviceNet

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
Supply current	8 A...62.8 mA
Supply voltage limits	93.5...264 V AC
Communication port protocol	DeviceNet
Bus type	DeviceNet ISO 1198 interface, addressing 1...64, transmission rate 125...500 kbit/s, terminal block with 4 twisted shielded pairs cable

Complementary

[Ui] rated insulation voltage	690 V conforming to UL 508 690 V conforming to CSA C22.2 No 14 690 V 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
Associated fuse rating	0.5 A gG for control circuit 4 A gG for output
Protection type	Earth-leakage protection Phase failure Reverse polarity protection Thermal overload protection Thermal protection Overload Phase unbalance Locked rotor Overload (long time) Load fluctuation Power factor variation
Network and machine diagnosis type	Phase fault and earth fault trip counters Remaining operating time before overload tripping Running hours counter/operating time Starting current and time Waiting time after overload tripping Fault recording Event recording Trip context information Trip history information Motor control command recording
Logic input number	6
Input current	7.5 mA at 240 V 3.1 mA at 100 V
Input/Output type	Logic input : 79...264 V and >= 2 mA for 25 ms (at state 1) Logic input : 0...40 V and <= 15 mA for 25 ms (at state 0)
Maximum output switching frequency	2 Hz
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), Ie = 1.25 A, 500000 cycles (output) 480 VA (AC-15), Ie = 2 A, 500000 cycles (output)
Operating rate	1800 cyc/h
Contacts type and composition	3 NO 1 NO + 1 NC fault signal
Metering type	Earth-fault current Phase current I1, I2, I3 RMS Temperature Average current Iavg Imbalance current
Measurement accuracy	0,02 current 5 % active and reactive power 0,02 temperature +/- 30 min/year internal clock 5 % earth fault current external measurement (< 5 % or 0.01 A) 3 % power factor (cos φ > 0.6) 1 % voltage (100...830 V) 5...15 % earth fault current internal measurement (for current > 0.3 A)
Overvoltage category	III
Connection pitch	5.08 mm
Connections - terminals	Connector, 2 solid cable without cable end 0.2...1 mm² /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable without cable end 0.5...1.5 mm² /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable without cable end 0.2...1.5 mm² /AWG 24...AWG 14 for control circuit Connector, 2 flexible cable with cable end 0.2...1 mm² /AWG 24...AWG 14 for control circuit Connector, 1 solid cable without cable end 0.2...2.5 mm² /AWG 24...AWG 14 for control circuit Connector, 1 flexible cable without cable end 0.25...2.5 mm² /AWG 24...AWG 14 for control circuit Connector, 1 flexible cable without cable end 0.2...2.5 mm² /AWG 24...AWG 14 for control circuit Connector, 1 flexible cable with cable end 0.25...2.5 mm² /AWG 24...AWG 14 for control circuit
Tightening torque	0.5...0.6 N.m, 3 mm flat screwdriver for control circuit
Pollution degree	3
Electromagnetic compatibility	• surges common mode (2 kV) control circuit, conforming to EN/IEC 61000-4-5 • surges common mode (4 kV) relay outputs and supply, conforming to EN/IEC 61000-4-5 • surges serial mode (2 kV) relay outputs and supply, conforming to EN/IEC 61000-4-5 • surges common mode (2 kV) communication, conforming to EN/IEC 61000-4-5 • surges serial mode (1 kV) control circuit, conforming to EN/IEC 61000-4-5 • surges common mode (1 kV) temperature sensor, conforming to EN/IEC 61000-4-5 • surges serial mode (0.5 kV) temperature sensor, conforming to EN/IEC 61000-4-5 • conducted RF disturbances (10 V), conforming to EN/IEC 61000-4-6 • voltage dips and interruptions immunity test (70 %, 500 ms), conforming to EN/IEC 61000-4-11 • fast transients immunity test on supply and relay outputs level 4 (4 kV), conforming to EN/IEC 61000-4-4 • fast transients immunity test other circuits level 3 (2 kV), conforming to EN/IEC 61000-4-4 • radiated RF fields 3 (10 V/m), conforming to EN/IEC 61000-4-3 • electrostatic discharge 3 (8 kV air, 6 kV contact), conforming to EN/IEC 61000-4-2
Width	91 mm
Height	61 mm
Depth	122.5 mm
Product weight	0.53 kg
Web services	Web server
Compatibility code	LTMR

Environment

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 KERI LROS (Lloyds register of shipping) NOM RINA RMRoS UL EAC
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
Fire resistance	960 °C conforming to UL 94 650 °C conforming to EN/IEC 60695-2-12
Ambient air temperature for operation	-20...60 °C
Ambient air temperature for storage	-40...80 °C
Operating altitude	<= 2000 m without derating
Mechanical robustness	• shocks half sine wave acceleration (15 Gn for 11 ms) conforming to EN/IEC 60068-2-27 • vibrations plate mounted (4 Gn, 5...300 Hz) conforming to EN/IEC 60068-2-6 • vibrations mounted on symmetrical rail (1 Gn, 5...300 Hz) conforming to EN/IEC 60068-2-6