

10 Technical Data

Technical data CPU 833-TG / CPU 833-TG/01		
Total failure rate	$\lambda = 1247 \text{ FIT}^{1)}$	
Processing speed	twice as fast as the CPU 831-TG	
Main memory		
NV-RAM	128 kB	
Flash-EPROM	64 MB	
Fast-RAM (Read and Write)	64 MB	
Nominal Supply Voltage (US)	24/36 V DC	
Limit Values	16.8...45.0 V DC	
Powerfail threshold: Switch off	typically 14 V DC	
Powergood threshold: Switch on	typically 16 V DC	
Current consumption 24 V DC	typically 291 mA ²⁾	
Current consumption 36 V DC	typically 194 mA ²⁾	
Inrush current	CPU 833-TG	CPU 833-TG/01
@min. Voltage	1.3 A @16.8 V DC	1.3 A @16.8 V DC
@nom. Voltage	1.1 A @24 V DC	1.1 A @24 V DC
@max. voltage	0.7 A @45 V DC	0.7 A @45 V DC
Load capacity of LBus and CBus	without PSM 83x-Tx	with PSM 83x-Tx
Communication modules on the LBus ³⁾	–	0...3 / 15 W ⁴⁾
Extension modules on CBus	0...3 / 4 W ⁵⁾	0...12 / 12 W
Communication interfaces		
RS interface (RS-232/422/485)	1	
CAN interface	2 (male/female) ⁶⁾	
Ethernet connection	1	
USB interface	1	
Service interface	1	
SD card interface	1	
Slot for flash cassette	no	
Real-time clock	Yes ⁷⁾	
Index of protection	IP20, front IP30 ⁸⁾	
Power Dissipation	typically 8 W	
Ambient temperatures		
Operation	-40°C...+70°C	
Storage	-40°C...+85°C	
Dimensions (W×H×D)	80.2 × 135 × 90 mm	

Technical data CPU 833-TG / CPU 833-TG/01	
Weight	CPU 833-TG: 880 g / CPU 833-TG/01: 920 g
Article No. CPU 833-TG	44310207
Article No. CPU 833-TG/01	44310209

- 1) λ : Total failure rate (see chapter ["Maintenance and Failure rate" on page 54](#))
- 2) without LBus and CBus extension
- 3) For further information on power consumption, see ["Voltage Supply / Extension Variants" on page 10](#)
- 4) So there can be 4 modules connected to the LBus, up to 3 communication modules and the PSM itself.
- 5) Power supply exclusively via US.
- 6) One male/female pair each are galvanically connected to each other (X1 and X2, X3 and X4), see also ["Galvanic isolation of connections" on the next page](#).
- 7) Accuracy of RTC: 5 ± 23 ppm/year, aging: ± 5 ppm/year (equivalent to 2.5 ± 12 min/year, aging: ± 2.5 min/year)
- 8) only with plugged-in terminals

! IMPORTANT

If the module is used at altitudes above 2000 m.a.s.l., take into account that the maximum allowed ambient temperature is reduced (see **Transport System Manual**, chapter "Installation, Startup and Operation", "Taking into Account of the Operating Altitude").

10.1 Included in the scope of delivery

Article	Art. No.	Description
TBA 830	44370008	Connection terminal for CPU 83x-Tx and BDG 831-TG
SA 830	44370012	Protective cover for CPU 83x-Tx
LTP 830-T	44370007	Terminating plug for LBus (LBus = communication bus)
CTP 731-T	44570100	Terminating plug for CBus (CBus = system bus)
MTA 731	44570104	Mounting bracket for MAS 73x/83x modules

10.2 Other device-specific accessories

Article	Art. No.	Description
ECA 801-T	44130176	Ethernet cable, 4×22 AWG, shielded
SCM 831-T ^{*)}	44370024	Service & Configuration Module for CPU 83x-Tx

^{*)} A detailed description of the SCM 831-T can be found in the **Transport System Manual**, chapter "Operating and Display Devices", "Service and Configuration Module SCM 831-T".