

TiTAN

Multi Function Meter | Power Monitoring Unit



tor.ai®

www.tor.ai

Multi Function Meter | Power Monitoring Unit

Titan 200 | 300 | 400 series

TiTAN

The Titan is a compact, smart Power Monitoring Unit that tracks over 68 electrical parameters, including voltage, current, and power quality with THD and harmonic analysis up to the 31st order. With Transient Analysis, built-in scheduling, and PLC functionality, it enables proactive energy management and process automation. Supporting WiFi, BLE, and RS485, it ensures seamless integration into IoT and industrial systems, while its robust, user-friendly design ensures reliability in demanding environments.



Applications

- Industrial and industrial sub-metering and Energy Management System (EMS) applications
- Building management and monitoring systems (BMS)
- Power Control Centre (PCC) panels
- Motor Control Centre (MCC) panels
- High, medium and low-voltage switchgear panels
- Control and relay panels
- Relaying and control outputs

Industries



Manufacturing



Process Industries



Commercial Buildings and Infrastructure



Oil and Gas



Data Centres and IT Facilities

Benefits



Reduced measurement errors, ensuring precise energy management



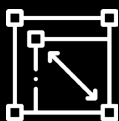
Improved system performance and compliance through detailed power quality



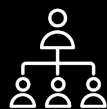
Prevention of costly downtime by identifying power quality events with advance transient



Easy integration into existing systems with multi-protocol connectivity



Compact design reduces hardware requirements and installation time



Streamlined operations with RTC scheduling and I/O controls



Simplified setup and management with push-button programming and remote access

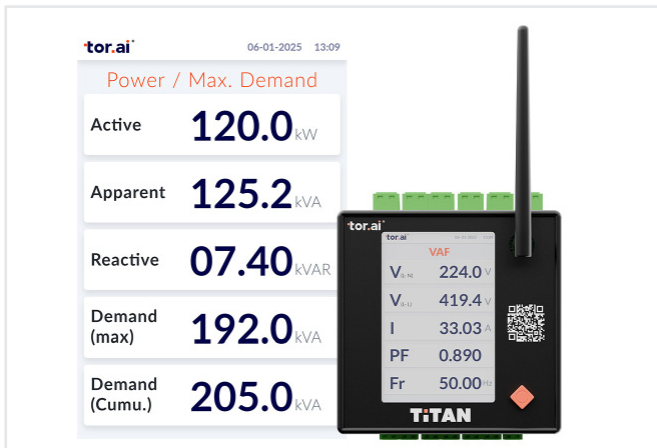


Complete traceability with time-stamped event logs for compliance and audits

Key features

Titan 200 | 300 | 400 Series

TITAN



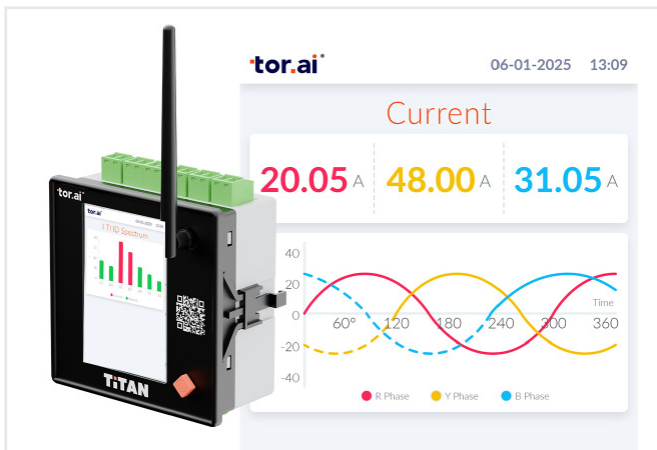
68 Parameters

Tracks 68 electrical parameters including voltages, power factors, and harmonics for real-time monitoring



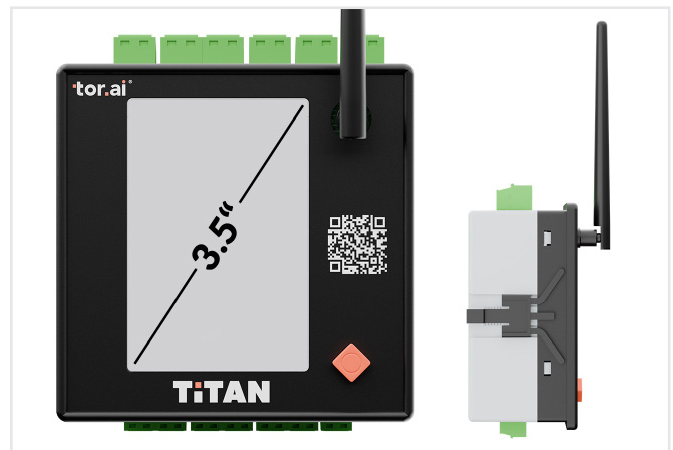
Built in Wi-Fi with native connectivity

Supports WiFi, BLE, RS485, and Ethernet to enable seamless IoT and cloud integration



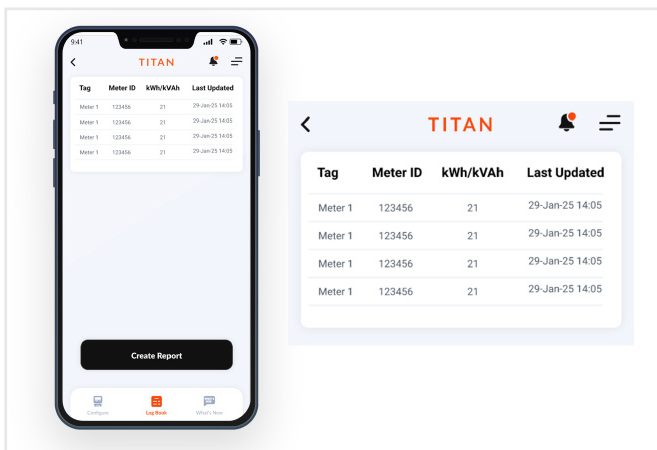
Advance transient analysis

Event-based analysis captures detailed 30-second snapshots for root-cause investigation



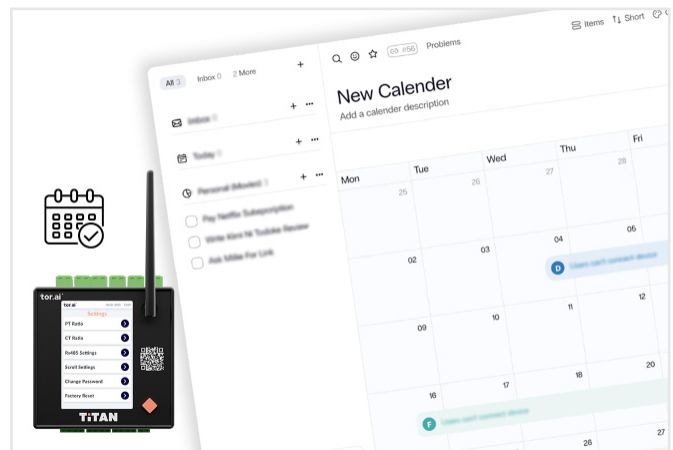
TFT Display | Compact design

Features a 3.5" TFT screen that provides real-time data visualization and historical trends



Digital logbook

Eliminate manual data logging with Tor Titan mobile app which automatically syncs the energy consumptions data



Built in scheduling

Includes digital inputs/outputs and RTC functionality for schedule-based automation and event triggers

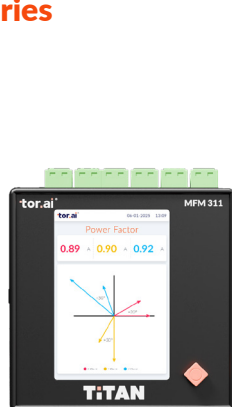
400 Series



411

Meter with display with RS-485, BLE, Wi-Fi and I/Os with Transient analysis

300 Series



311

Meter with display and RS-485



312

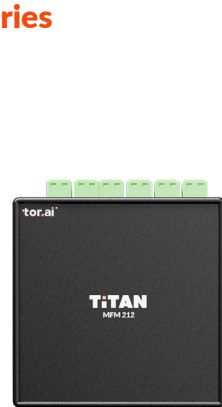
Meter with display with RS-485, BLE and Wi-Fi



313

Meter with display with RS-485, BLE, Wi-Fi and I/Os

200 Series



211

Meter without display with RS-485



212

Meter without display with RS-485, BLE and Wi-Fi

Technical specification

Titan 200 | 300 | 400 series

TITAN

	211	212	311	312	313	411
--	-----	-----	-----	-----	-----	-----

Electrical

Voltage range	50V - 500V (AC 3 Phase 4 wire, 3 phase 3 wire)					
Aux power supply range	65V - 450V AC/DC supply					
Current range	0.05A - 5.0A (20% Overload)					
Frequency	45Hz - 65Hz					
Accuracy class	0.5S					
Short time over current	200% for 10 Sec					

Compliance

Standards	IS 14697, IS 13779, IEC62052-11, IEC62053-22, IEC62053-23, IEC 61010, IEC 62053-31					
-----------	--	--	--	--	--	--

Mechanical

Dimensions (W*H*D)	96*96*41 mm					
Weight	0.5Kg					
Enclosure	Polycarbonate					
Terminals	Plug In					
Mounting	Panel Mounting, Din rail (Optional)					

Environmental

IP	IP54(front facia) ; IP 20 (at terminals)					
Insulation	min 10 MOhm					
Impulse withstand	Refer to standard					
Operating Temp	10 to 75 deg C					
Storage Temp	0 to 85 deg C					
Humidity	95% RH					

Communication

Modbus	RS 485					
Baudrate	9600 to 115200 settable					
WiFi	NA	IEEE 802.11 Wireless network	NA	IEEE 802.11 Wireless network		
BLE (Bluetooth Low Energy)	NA	BLE 5.0	NA	BLE 5.0		
CT/VT	Configurable via RS485			Configurable through Joystick and BLE		

Interfaces

Analogue Input	NA	2 (0-500 ohms and 4-20mA)				
Digital Input	NA	2				
Digital output	NA	2				
Counter Input (0-1000 Hz)	NA	1 (based on DI)				
Hour Meter	NA	3 (1 voltage based, 1 current based, 1 DI based)				

Display

Screen	NA	Colour TFT 3.5 inch (320*480)				
--------	----	-------------------------------	--	--	--	--

Additional Features

Transient Analysis over WiFi	NA					1 sample @20 msec over WiFi R,Y,B phase voltages R,Y,B phase currents Phase wise power factor Phase wise Vthd Phase wise Ithd
Titan mobile app	NA	Android and iOS	NA	Android and iOS	Android and iOS	Android and iOS

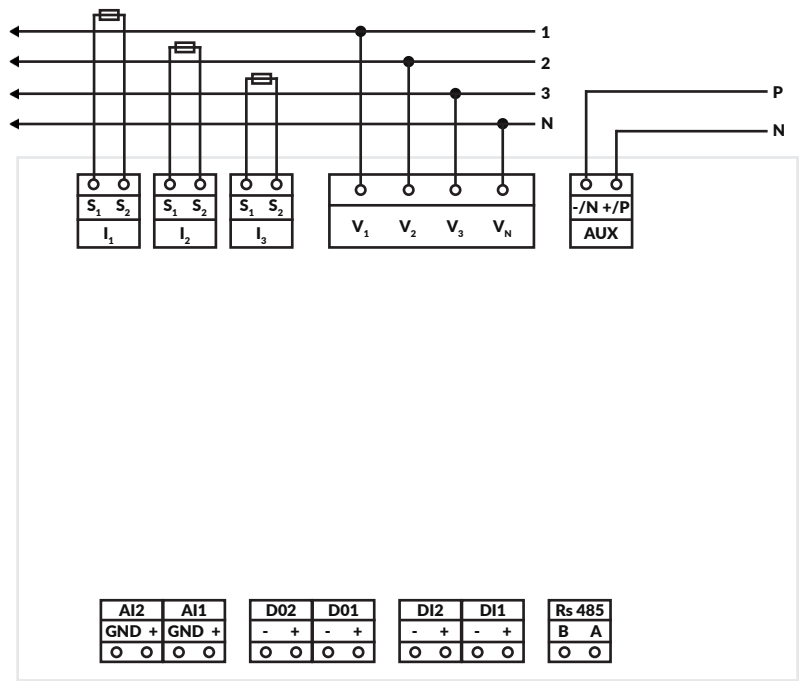
Features

Titan 200 | 300 | 400 series

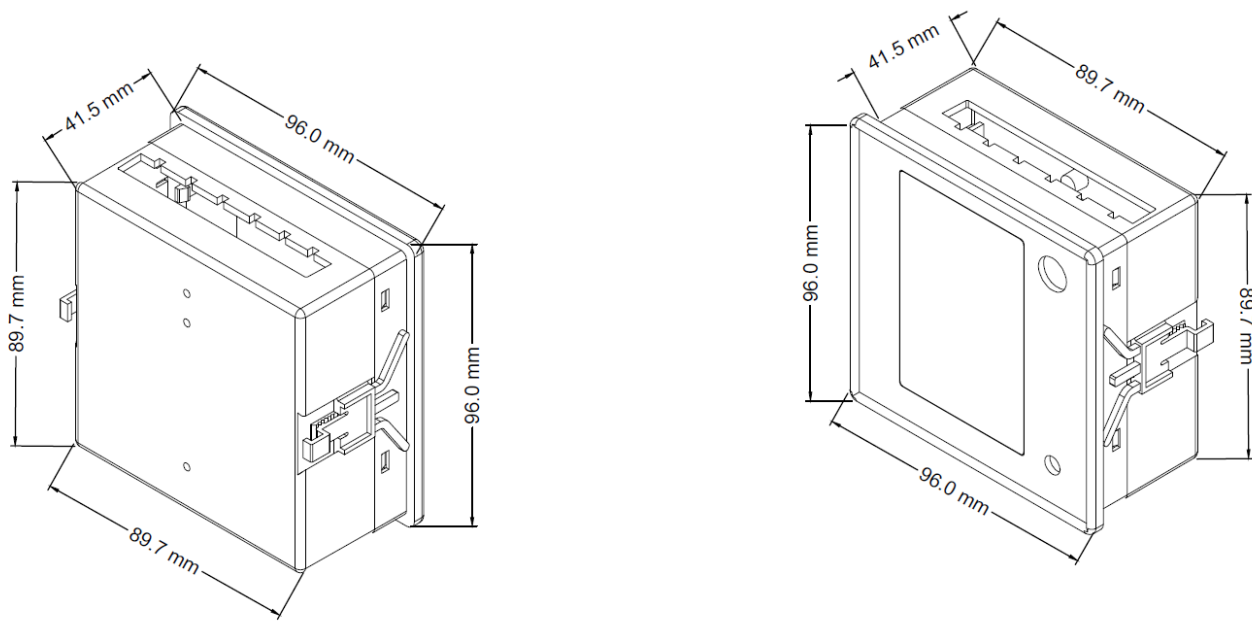
TiTAN

Features	200 series		300 series		400 series	
	211	212	311	312	313	411
Voltage & current metrics (PN Voltage, PP Voltage, Line Currents, Avg Voltages/ Currents)	■	■	■	■	■	■
Real-time power metrics (Active, Reactive, Apparent Power, Total and Phase-wise metrics)	■	■	■	■	■	■
Comprehensive Energy metrics (Active Total Import/Export, Reactive (Q1+Q2)/ (Q3+Q4), Apparent Energy)	■	■	■	■	■	■
Power Quality monitoring (Phase-wise THD Voltage, THD Current, THD Power)	■	■	■	■	■	■
RPM Monitoring with Frequency and unbalance detection (Voltage/ Current)	■	■	■	■	■	■
Historical Data Tracking (Cumulative MD, Min/Max values)	■	■	■	■	■	■
Phase-wise and Average Power Factor	■	■	■	■	■	■
Feeder Interruption tracking (When Auxiliary Supply is Off)	■	■	■	■	■	■
Overload protection for short durations	■	■	■	■	■	■
Modbus RTU Communication (RS 485)	■	■	■	■	■	■
Accuracy class 0.5S	■	■	■	■	■	■
Multi-Parameter Hour Meters (Voltage, Current & DI-based)	■	■	■	■	■	■
App for Configuration	■	■	■	■	■	■
Web and Mobile App	■	■	■	■	■	■
Power On/Off & Load On/Off Hours tracking					■	■
WiFi-based reports, alerts & analytics (Voltage, Current, Power Factor, Vthd, Ithd)		■		■	■	■
High-res color TFT display			■	■	■	■
Analog Inputs - Dual					■	■
Digital Inputs - Dual					■	■

Connection diagram



Mechanical dimensions



Capabilities

1 RnD

Technology refinement by 100+ inhouse team of engineers and subject matter experts in embedded systems, hardware development, type testing - validation, application and platform development.

2 Application & Analytics

Expertise in developing and deploying customized applications with platform and database development along with managing infrastructure and security.

3 Manufacturing

Our hardware is manufactured in state-of-the-art pick and place setup for board building along with code burning bank for building multiple boards in parallel.

Tor.ai Limited

HQ - Pune

Bangalore | Delhi NCR | Dubai | Nairobi

Chennai | Ahmedabad | Kolkata | Mumbai

☎ : +91 937 346 7304

✉ : contactus@tor.ai

🌐 : www.tor.ai