



# BST

**Behineh Sazan Toos Co.**



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## IRANTECH 12 DF Single Phase Smart Meter

The Irantech12 DF single-phase smart meter designed and manufactured to meet the requirements of the TAVANIR 4th edition. This meter is equipped with two optical communication port and RS485 port and supports DLMS protocol.

Irantech12 DL enables HHU devices to read data through the optical port with IEC62056-21 protocol, Readout mode to provide accurate invoices.

It complies with FAHAM 2 data model. This meter can read data via FAHAM 2 modem and FAHAM MDMs. In addition to providing hourly, daily and monthly readings of load profiles, Irantech12 DF also allows for remote changes to settings such as TOU setting, time and LCD parameters, and enables the remote reading events.

# IRANTECH 12 DF

## Main features

- According to IEC62053-21/23 , IEC62052-11 , DLMS/COSEM
- BS standard wiring
- Ability to measuring and recording active and reactive energy, active and reactive power, current, voltage and  $\text{Cos}\varphi$
- Ability to measuring and recording back and forward energy Separately
- Ability to measuring and recording energy independent of current direction and in absolute value (Anti fraud)
- Ability to measuring and recording maximum demand
- Ability to measuring and recording reverse function
- Ability to measuring pahase and null currents separately and view bypass
- Insulation class II
- IP54
- Tolerantable Moisture: 95%
- Ability to read without power (RWP)
- Record and display the opening of the terminal cap under operating and without power conditions
- Optical poer and RS485 electrical port
- Includes 2 internal and external batteries
- Interchangeable backup battery without need to access to internal circuit
- Battery life under normal operating conditions of 20 years and 2 years without power
- Body made of anti-fire and anti-UV polycarbonate
- Seamlessly body with breaking ability when accessing the internal components of the meter

IRANTECH12-DF  
1Phase 2Wire   230V 5(100)A 50Hz  
IEC62052-11  
IEC62053-21/23  
RWP - V4



# IRANTECH 12 DF

## Main features

- With rail terminals (elevator)
- Record the energy consumption for 16 courses
- Record the number of power off times
- Record the number of programming with the name of operator ID
- hourly Load profiles : in 8 channels with adjustable sampling intervals
- daily Load profiles : in 7 channels with adjustable sampling intervals
- Ability to protect against unauthorized access by defining a password for the meter and software
- Real time clock , ability to detect leap years, DST(Daylight Saving Time)
- User friendly software with different access levels
- 4 tariffs with the ability to define 12 time intervals per day and specify specific days and holidays
- Unaffected by magnetic field up to 400mT / With magnetic field detection sensor
- Guaranteed for 5 years and after-sales service for 20 years
- Type test of international and domestic institutions such as Tavanir (Power Research Institute), KEMA, CTI, National Standard of Iran ...
- In accordance with Tavanir requirements - Version 4
- Size 15.6\*12.5\*5.1 Cm
- Weight 0.408 Kg





## Technical Specifications

Description	Value
<b>Voltage</b>	
Nominal voltage $U_n$	3*230/400V
Extended operating voltage range	0.80 $U_n$ ~1.2 $U_n$
Start operating voltage	82
Limiting voltage	500
<b>Frequency</b>	
Nominal frequency $f_n$	50Hz
Tolerance	45Hz to 55Hz
<b>Current</b>	
Basic current ( $I_b$ )	5A
Maximum current ( $I_{max}$ )	120A
Starting current ( $I_{st}$ )	<20mA
<b>Measurement Accuracy</b>	
Active energy	Class 1
Reactive energy	Class 2
<b>Power Consumption</b>	
Power consumption in Voltage circuit	$\leq 2W$
Power consumption in current circuit	$\leq 2VA$
<b>Inputs and Outputs</b>	
Optical test outputs active energy & reactive energy	
Type	Red LED
Pulse width	30ms
Active energy constant	2000 imp/kWh
Reactive energy constant	2000 imp/kvarh
<b>Temperature range</b>	
Operation meter	-40°C to +75°C
Storage	-40°C to +85°C
<b>Electromagnetic Compatibility</b>	
Electrostatic discharges	
Contact discharge	8kV
Electromagnetic RF fields	
27 MHz to 500 MHz	Typical 10V/m
100 kHz to 1 GHz	Typical 30V/m
Fast transient burst test	Normally 4kV



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