

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED
TECHNICAL SPECIFICATIONS FOR MFT (Multi Function Transducer)

MFT are used to acquire Electrical Parameters through MODBUS protocol. The following are the details of MFTs.

- a. Interface: RS-485, in Daisy Chain to RTU Com Port
- b. Wiring: Both 3 Ph-4W
- c. Supply: Self Powered
- d. Outputs: Following are the power outputs

01. System Volts in kV

System Current in A

System MW

02. System Volts THD %

System Current THD %

03. Volts L1-N in kV

Volts L2-N in kV

Volts L3-N in kV

04. Volts L1- L2

Volts L2- L3

Volts L3- L1 all are in kV

05. Volts L1- THD %

Volts L2- THD %

Volts L3- THD %

06. Current L1

Current L2

Current L3

07. Current L1 -THD %

Current L2 -THD %

Current L3 -THD %

08. Neutral Current

Frequency

Power Factor

09. MW

MVA

MVA


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10. kWh (7 digit Resolution)
11. kVArh (7 Digit Resolution)
12. MW Demand: Current Demand
13. MW Maximum Demand: Current Maximum Demand
14. Primary Current: Max. 9999.5
(at 120 % of relevant CT/PT inputs)
PT Primary Max: 400 kV
(at 120 % of relevant CT/PT inputs)
15. Demand Integration time: 5, 15, 30 and 60 Mins
16. Resets for: Max Demand and Active Energy Registers
17. Baud Rate: 2.4, 4.8, 9.6 and 19.2 kBps in RS-485
18. RS-485 Parity: Odd/Even with No. 1 or 2 Stop Bits
19. Mod-Bus Address: 1-247
20. PT Input: 57.7 to 346 V (L-N) 100 to 600 V (L-L).
21. Max Voltage: 120 % of Nominal
Short Duration: 2 times for 1 sec, repeated at 10 times at 10
secs interval
22. PT Primary: 400 kV Max
23. CT Input: 1A
24. CT Ratio: Max. 9999.5/1A Max Current: 120 % of nominal.
Short Duration: 20 times for 1 sec, repeated at 5 times at 5
secs, interval
25. Max. Burden :< 0.6 VA
26. Output: RS-485: 2 Wire half Duplex
Baud Rate: 2.4, 4.8, 9.6 and 19.2 kBps


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27. Frequency: 45-66 Hz

28. Measuring Ranges: Voltage: 120 %

Current: 120 %

Frequency: 45-66 Hz

Power Factor: 0.5 Lag-1-0.8 Lead

THD: 1 to 11th Har.

kWh/kVArh: 7 Digit resolution

29. Accuracy: All parameters to meet 0.2s class of accuracy.

30. Up Date time: 500 m secs.

31. Enclosure: Body: Poly Carbonate case and ABS base

Terminals Shrouded screw clamps mounting on DIN rail.

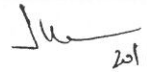
32. Dielectric: 2.2 kV RMS at 50 Hz withstand for 1 min.

33. Operating Temp.: -20°C to + 70°C

Relative Humidity: 95 % non condensing

Warm up time: 1 min

Dimensions: 96 h X 96 w X 155.5 mm


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TECHNICAL SPECIFICATIONS FOR Opto-Coupler

Type of Input: DC

Input voltage: 110V, 220V dc

Number of Inputs: 8

Input indication: Input ON indicated by LED

Input range: for 110V dc is 100V dc to 140V dc and for 220V dc is 190V dc to 240V dc

Isolation test voltage: 2.5kV (T=1sec)

Input Reverse polarity protection: to be provided

Sourcing voltage output: 48VDC/24VDC

Number of outputs: 8

Sourcing current: 5mA at output

Other features: 8way DIP switch to be provided for testing individual output

Termination: 2.5sqmm /5.08mm pitch connector

Enclosure: Open type

Mounting: DIN RAIL mounting

Test standard: IEC61000-4-4:2001



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