

**INDEPENDENT POWER TRANSMISSION OPERATOR S.A.**

**TNPRD/ SUBSTATION SPECIFICATION & EQUIPMENT SECTION**

April 2016

**TECHNICAL DESCRIPTION TD – 32/2**

**POINT-ON-WAVE CONTROLLERS**

**ATTACHMENT A**

Data to be provided by bidders.

Failure to comply will constitute sufficient reason for rejection of the offer.

1. Type and manufacturer of the controller : …………………………………….

2. Ambient Temperature operating limits

of the controller : …………………………………….

3. Humidity operating limits of the controller : …………………………………….

4. Nominal supply voltage of the controller : ………………………………………

5. Input reference Voltage : ………………………………………

6. Input Current : ……………………………………….

7. Sensitivity to frequency variation : ………………………………………

8. Accuracy of switching times

of CB open – close commands : ……………………………………….

9. Number of output contacts

for circuit breaker control : …………………………………….

10. Binary Inputs - Outputs rated voltage : ……………………………………….

11. Short-time current

of CB control output contacts : …………………………………

12. Making capacity

of CB control output contacts : …………………………………

13. Output signaling contact current

rating. : …………………………………………

14. Number of signaling contacts : ………………………………………….

15. Number of binary inputs : ………………………………………….

16. Which switching functions are available

for CB control? (opening and/or closing) : …………………………………

17. Is the controller suitable for control of

single-pole operated three-phase CB? : …………………………………

18. Type of load for which the controller

is suitable (shunt reactor, capacitor bank,

overhead line, cable line). State all that apply : …………………………………………..

………………………………………...

………………………………………...

19. Number of available three-phase current

recordings (waveform) : …………………………………………….

20. Can the controller compensate for

supply voltage variations? : …………………………………………….

21. Can the controller compensate for

ambient temperature variations? : …………………………………………….

22. Does the controller include adaptive

control to compensate for CB

operating times drifting? : …………………………………………….

23. How is parameters setting achieved  
 (through keypad or laptop PC) ? : …………………………………………….

24. If settings are also carried out via PC, is then

the relative software and

communication cable provided? : ……………………………………………..

25. Describe how is the controller mounted on a

panel. : ……………………………………………

26. Weight of the controller : …………………………………………….

27. Dimensions of the controller : …………………………………………….

28. Type of terminals : ………………………………………….

29. Are the terminals suitable for

2.5 mm2 size conductors

(4 mm2 for CT connection)? : …………………………………………

30. Power consumption of the controller : ………………………………………….

31. Can the controller be used in conjunction   
with three single‑phase CTs and one   
single‑phase VT? : ………………………………………...

32. Number of A.C. current inputs : ………………………………………...

33. Number of A.C. voltage inputs : ………………………………………...