

Chiarimenti (Clarifications)

Lista (List) #9

Chiarimento (Clarification) #9.1

Domanda (Question):

The Technical Specifications does not report the IP levels of the cabinets.

Risposta (Answer):

This is addressed in Section 11.3.

Chiarimento (Clarification) #9.2

Domanda (Question):

Technical Specifications requires that “Closed panels shall have approximately IP 52”. Can ENEA accept panels with lower IP protection, as generally accepted in power electronics applications (e.g. IP31 o IP21)?

Risposta (Answer):

The same paragraph Technical Specifications clarifies that “Different solutions shall be approved by ENEA”, meaning that different IP codes could be accepted. Moreover, the reported sentence contains “approximately”.

ENEA could approve IP31 o IP21 if the Contractor shows that it does not reduce the performances and the safety (that is a priority) and can have advantages in terms of layout, cooling or other characteristics.

Chiarimento (Clarification) #9.3

Domanda (Question):

The Technical Specifications does not report if the cabinets must be “Explosion Proof” EEX-d.

Risposta (Answer):

There is not a specific request. Nevertheless, consider the following specifications:

- Section 11.9: “All cabinets and containers shall be sized in such a way as to limit the possible explosion of each of the components located inside without any risk for the operator. In particular, the explosion risks of thyristors and other semiconductors shall be considered.”
- Section 1.5: “The VS PS system shall implement the following functions: ... To ensure the safety of the people and the plant.”
- Section 11.3: “Panels, cabinets and switchboards shall be manufactured in accordance with applicable IEC standards and good industrial practice. In particular, all safety precautions shall be taken into account.”

Chiarimento (Clarification) #9.4

Domanda (Question):

The Technical Specifications does not report requirements of Power Quality towards the upstream grid. Confirm.

Risposta (Answer):

The only relevant requirement is the “Minimum power factor” in Section 5.2.

However, Section 5.2 also requires that “The Contractor shall provide in the FDR all the information useful to model the effects of the PS system on the input distribution network in terms of power quality (in particular, for the harmonic analysis).”.

Chiarimento (Clarification) #9.5

Domanda (Question):

For the test on supercapacitors, is it possible to request an agreed protocol to exploit a test facility for converters?

Risposta (Answer):

Only for Lot 1 requires a minimal set of “Specific tests on supercapacitors” (Section 12.9). Other possible tests shall be proposed by the Bidder and will be evaluated in the Tender procedure.

The mentioned minimal set is “The Contractor shall verify by type tests at nominal current that the supercapacitor cells employed in the DC-links have the parameters, in particular the ESR, assumed and modelled in the design. This test shall be performed at least on a single cell, on two cells in series and on two cells in parallel.”. These tests shall be performed as prescribed.

Chiarimento (Clarification) #9.6

Domanda (Question):

Nel merito della Proposta Tecnica, per dimostrare la esaustività ed efficacia dei vari parametri è sufficiente riportare le esperienze in esercizio oppure occorre giustificare con calcolo.

Risposta (Answer):

Sarà la Commissione Tecnica a valutare caso per caso se le scelte progettuali e i parametri proposti sono adeguatamente giustificati.