

Easy

Assistant Engineer (Electrical), Class 2025

Building Department

Efficient LCC HVDC converters generally use _____

A

thyristor

Correct

B

mercury valves

C

diodes

D

mechanical switches

Correct Answer: A

Full Detailed Explanation

Concept & Reasoning Early HVDC schemes used mercury-arc valves, but semiconductor thyristor valves became the standard LCC technology because of improved reliability, controllability and maintainability. Diodes cannot provide firing-angle control, while mechanical switches are far too slow for power-frequency conversion. How to Solve It in the Exam LCC literally points to line-commutated thyristors. Important Exam Point Distinguish LCC thyristors from self-commutated IGBT-based VSC technology. Related Revision Path This question sits in the revision path Power System → HVDC Transmission → Line-Commutated Converters .

Open live question on website:

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