Yokogawa CP451-50 S2

Processor Module

CP451 processor execution for the AFV10S/AFV10D field control unit. Processor specifications, FCU architecture and site configuration are separate layers of the acceptance record.

Validated CENTUM control application → **CP451 processor / paired CP451 arrangement** → **FCU buses, FIO nodes and field control**

Identity and capability

Processor	VR5432, 133 MHz
Main memory	32 MB
Main-memory backup	Maximum 72 hours
Battery recharge	Minimum 48 hours
Applicable FCU	AFV10S / AFV10D

Integration and service

Dual-redundant processor arrangement	Two CP451 modules
FCU network	Dual-redundant Vnet/IP
FCU node ceiling	14 total; no more than 9 ESB nodes
Basic application capacity	LFS1500: up to 3 nodes; LFS1550 expansion to 14
ESB coupling	EC401 in slot 7, or slots 7 and 8 for dual redundancy

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Engineering distinctions

Processor vs FCU rating

Do not assign the FCU mains input, total power consumption or status-contact rating to the bare CP451 module. Keep assembly-level facts clearly labelled.

Backup versus recharge

The 72-hour backup maximum and 48-hour minimum recharge are different conditions. Neither is a guarantee for an aged or unverified battery.

Node capacity versus licensing

The physical FCU ceiling is not the basic software allowance. Check LFS1500, LFS1550 and the required node expansion licenses before changing node count.

Redundant ESB placement

With dual-redundant processors EC401 is used in both slots 7 and 8. A single ESB arrangement uses slot 7 and leaves slot 8 empty.

Required integration outcomes

Subject	Required outcome
Processor identity	Complete commercial marking and supported FCU agree
Battery record	Backup condition and required recharge time are understood
Coupler positions	EC401 placement matches single or redundant ESB design
Node configuration	Node count and licenses match the installed application
Control response	Approved controller and field tests pass

Use the approved site procedure for trip thresholds, hazardous-area approval and permission to work. This dossier does not assign plant-specific limits.

Applied engineering case

A request to expand an FCU must reconcile three separate constraints: the physical node ceiling, the ESB-node limit and the software allowance. Installing additional coupling hardware does not by itself establish the required licensed node capacity.

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Technical reference record

AFV10S/AFV10D Field Control Unit, GS 33K50E30-50E

4th edition, 1 April 2013; hardware specification, node configuration and software requirements

CENTUM VP Installation Guidance

User-supplied CP451-50 S2 reference, PDF pp. 22 and 25; FCU arrangement

Companion reading

The preserved manufacturer excerpt supplies the original technical listing and system context. The separate installation guide covers the ordered work sequence, commissioning evidence and fault checks.

Related Apter Power catalog references

Catalog navigation only. These entries do not establish compatibility, substitution or approval of a changed installation.

Yokogawa CP451-10 S2 | View Yokogawa CP451-10 S2 page

Yokogawa CP461-50 S2 | View Yokogawa CP461-50 S2 page

Yokogawa SB401-11 S1 | View Yokogawa SB401-11 S1 page

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Send the exact model, quantity and requested condition for a quotation.

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