

# General Specifications

## ACUKT1 Cabinet Utility Kit (for Rittal Cabinet, AFV30□)



GS 33J60K20-01EN

[Release 6]

### ■ GENERAL

The ACUKT1 Cabinet Utility Kit is used to install in high density a Field Control Unit (AFV30□), ESB Bus Node Unit (ANB10□), Optical ESB Bus Node Unit (ANB11□), and Unit for Optical ESB Bus Repeater Module (ANT10U) in the Rittal TS8 Cabinet. Temperatures and fans in the cabinet can be monitored on HIS by connecting to the HK bus.

AFV30□, AFV40□, ACB51, ANB10□, ANB11□ and ANT10U can also be constructed by combining the Base Plate and each module. Refer to "FIO System Overview" (GS 33J60A10-01EN).

### ■ STANDARD SPECIFICATIONS

#### ● Kit Components

Power Distribution Board with Built-in HKU (Power can be received from two power sources)

Door Fan Units: 2 for front door and 2 for rear door

Power Supply for HKU and Fan: 2 power supplies

Cables

Power Supply Bus Unit, Vertical Type (specify with option code)

Node Fan Unit (specify with option code)

#### ● Units that can be Installed in Cabinet (order separately)

Field Control Unit: AFV30□

ESB Bus Node Unit: ANB10□

Optical ESB Bus Node Unit: ANB11□

Unit for Optical ESB Bus Repeater Module: ANT10U

#### ● Applicable Cabinet

Rittal TS8 Cabinet (800 (W) x 800 (D) x 2000 (H) mm), Single door or Double door.

#### ● Number of Units that can be Installed in Cabinet

Maximum number of installable units is 14 (7 at the front and 7 at the rear).

Maximum number of AFV30□ is 1.

#### ● Status Contact Output

When AFV30□ is installed: FCU fault contact is output

When AFV30□ is not installed: A fan, fan power supply or cabinet temperature fault contact is output

Three terminals (NC, NO, C)

Contact Rating:

Rated voltage: 250 V AC/30 V DC or less

Rated current: 2 A

Rated power: 125 VA or less

#### ● Power Supply

Voltage: 100-120 V AC, Frequency: 50/60 Hz

Voltage: 220-240 V AC, Frequency: 50/60 Hz

Voltage: 24 V DC

Specify with suffix code

#### ● Power Consumption

100-120 V AC: 2900 VA (When the maximum number of nodes is installed)

100 VA (Only for ACUKT1)

220-240 V AC: 3320 VA (When the maximum number of nodes is installed)

100 VA (Only for ACUKT1)

24 V DC: 82 A (When the maximum number of nodes is installed)

5 A (Only for ACUKT1)

#### ● Connection

Power Supply: M6 screw terminal connection (Power can be received from two power sources)

Contact Output: M4 screw terminal connection

## ● Weight

Approx. 36 kg (Total weight of the kit components)

## ■ UNIT INSTALLATION EXAMPLE

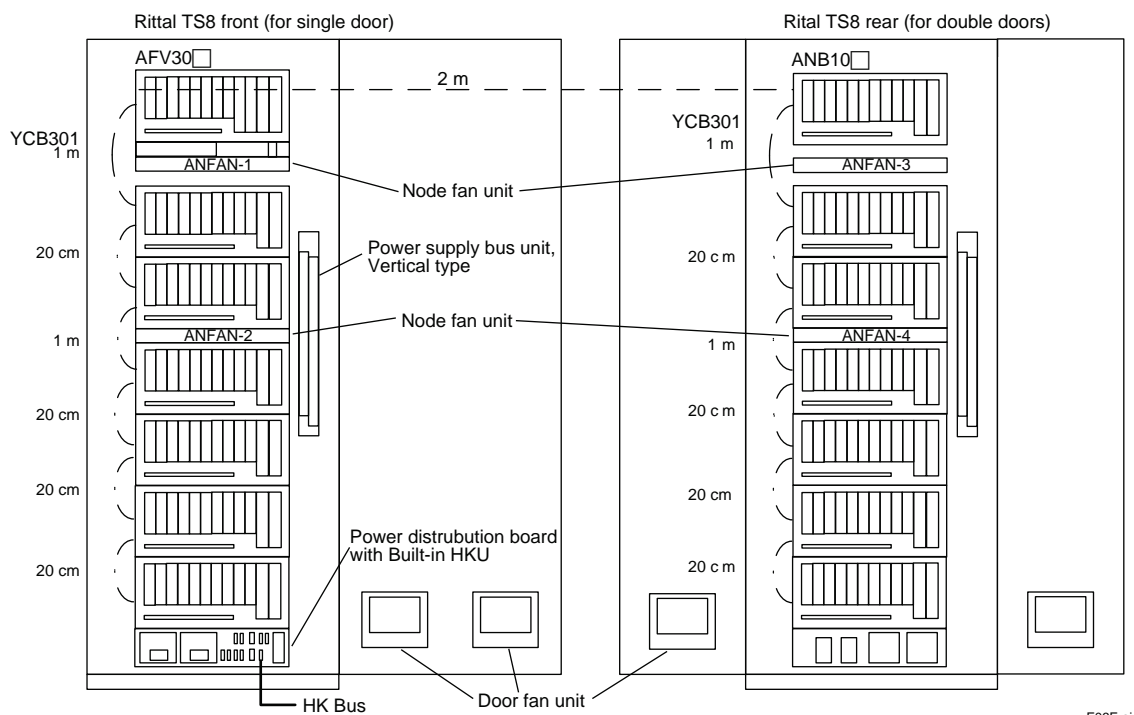
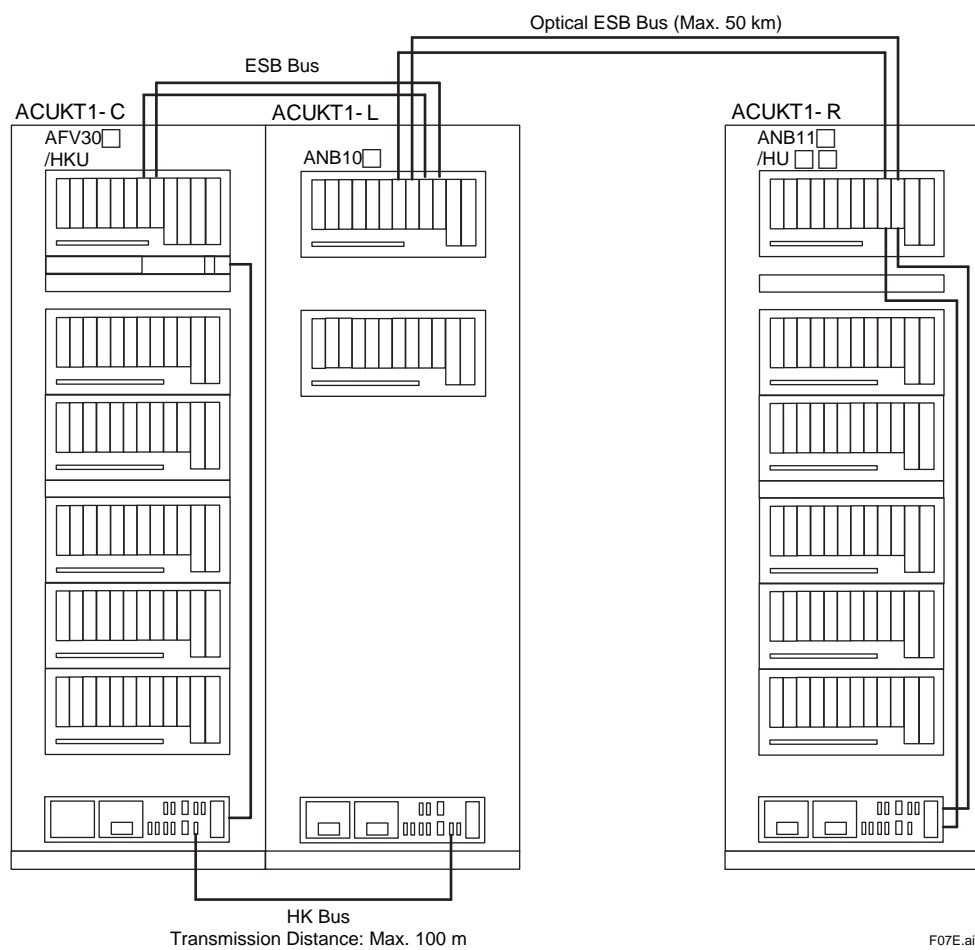


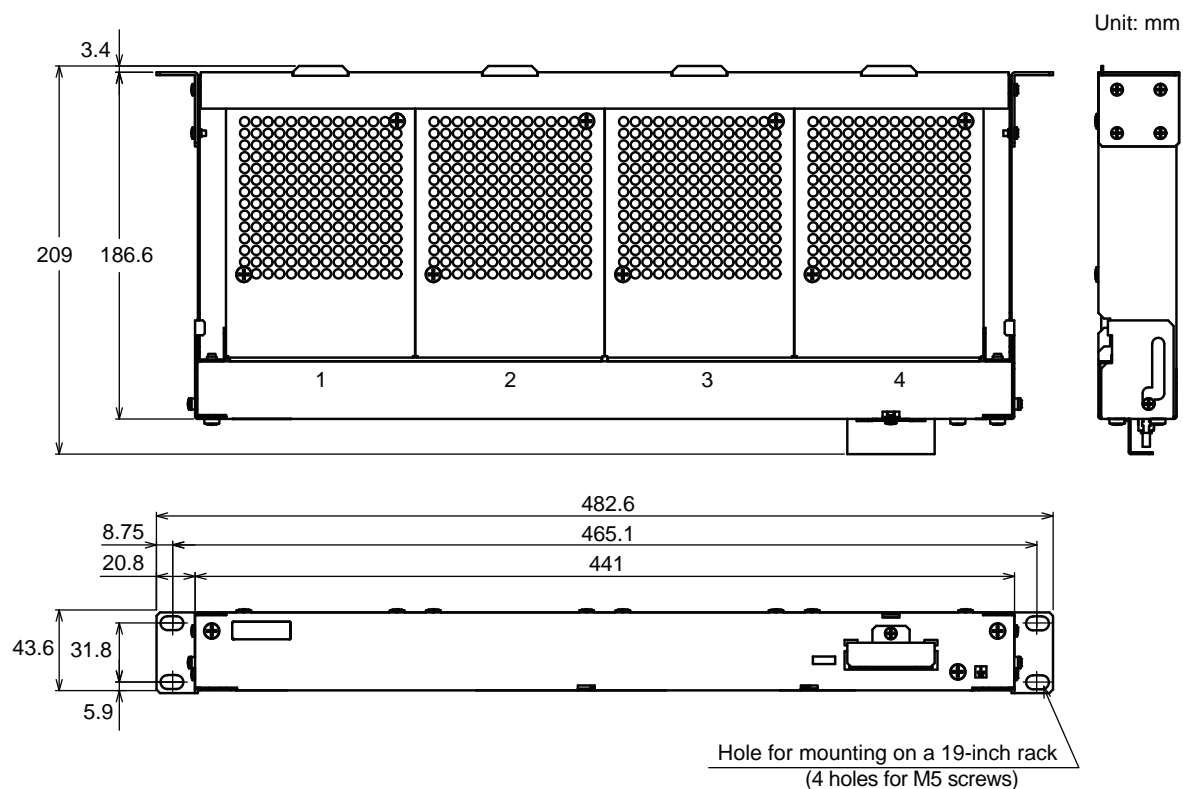
Figure Example of Installing AFV30D, ANB10D, and ACUKT1 in Rittal TS8 Cabinet

## ■ HK BUS CONNECTION EXAMPLE



## EXTERNAL DIMENSIONS

### ● Node Fan Unit



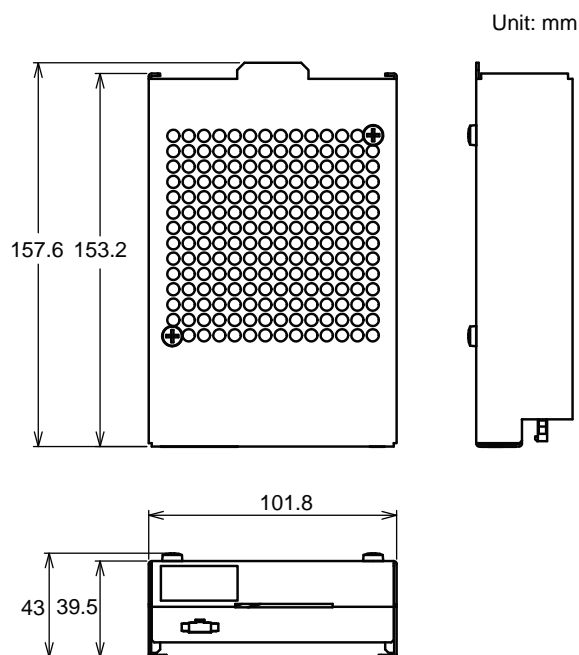
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#### Nominal tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ● Fan Unit (for ANFAN)

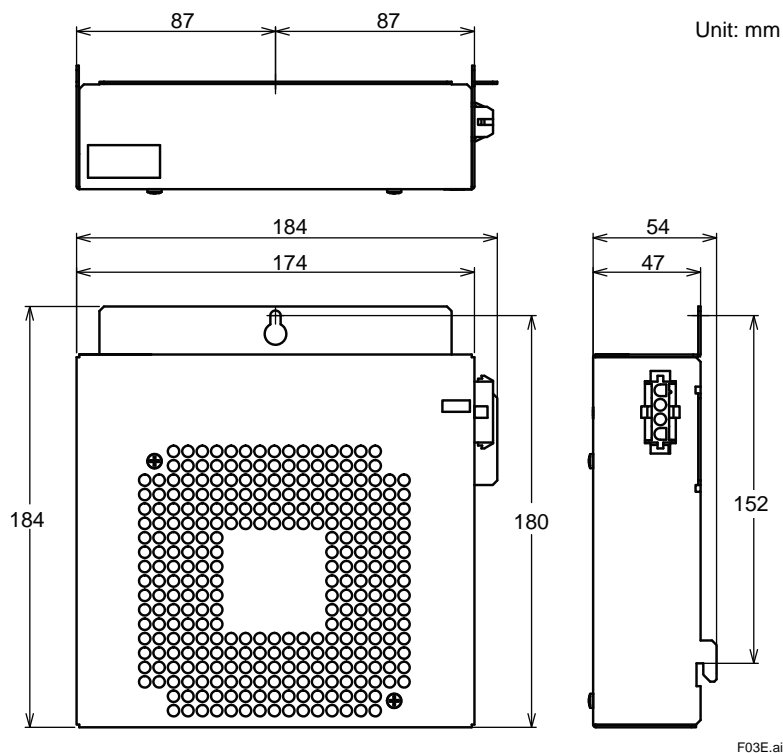


Nominal tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ● Door Fan Unit (for ACUKT1)

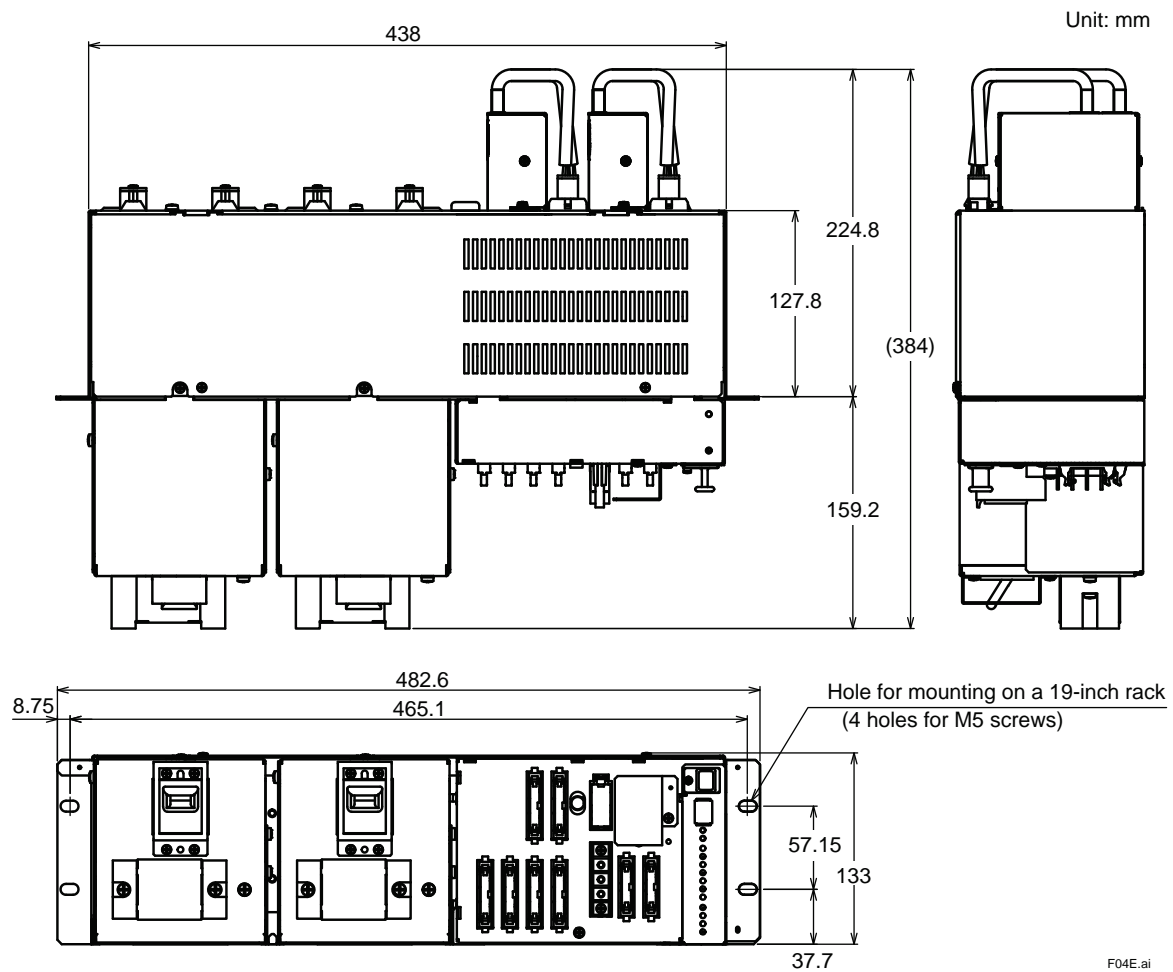


Nominal tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

# ● Power Distribution Board with Built-in HKU



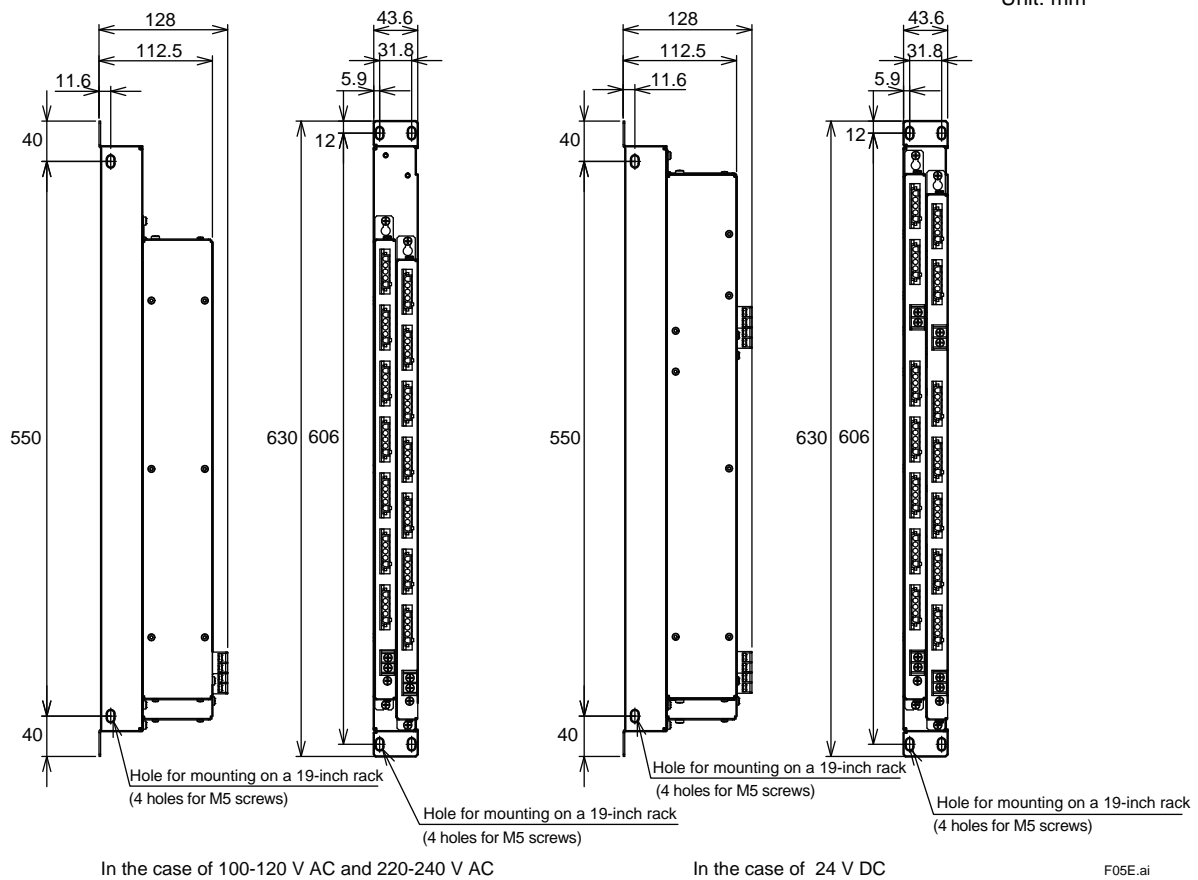
## Nominal tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ● Power Supply Bus Unit, Vertical Type (for Cabinet Mounting)

Unit: mm



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### Nominal tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ■ MODELS AND SUFFIX CODES

### Cabinet Utility Kit (for Rittal Cabinet, AFV30□)

		Description
<b>Model</b>	ACUKT1	Cabinet Utility Kit (for Rittal Cabinet, AFV30□)
<b>Suffix Codes</b>	-C	For CPU node (for AFV30□/HKU)
	-L	For ESB Bus Node (for ANB10□)
	-R	For Optical ESB Bus Node (for ANB11□)
	1	Single door type
	2	Double door type
	1	Single power supply
	2	Dual power supply
	1	100 - 120 V AC power supply
	2	220 - 240 V AC power supply
	4	24 V DC power supply
	0	Basic type
<b>Option Codes</b>	/NFAN1	Node fan 1 (for upper of front side) (*1) [Model: ANFAN-1]
	/NFAN2	Node fan 2 (for lower of front side) (*1) [Model: ANFAN-2]
	/NFAN3	Node fan 3 (for upper of rear side) (*1) [Model: ANFAN-3]
	/NFAN4	Node fan 4 (for lower of rear side) (*1) [Model: ANFAN-4]
	/□-AEP	Power supply bus unit, vertical type (*2) [Model: AEPV7D]

Note: If the field control unit (AFV30□) is used in combination with this kit, specify the option code "/HKU" when ordering AFV30□.

Note: Be sure to order the HK Bus Cable (AKBHKU) if communication with the HK unit is to be performed between cabinets. (However, the HK Bus Cable is not required for cabinets that are to be connected via an optical ESB Bus.)

\*1: Order node fan units ("/NFAN") according to the number of node units (ANB10□ or ANB11□ or ANT10U) and CPU node to be mounted on the front and rear sides of the cabinet.

<Front side>

In the case of one CPU node and node units:

One CPU node + 0 to 4 node units: /NFAN1

One CPU node + 5 or 6 node units: /NFAN1/NFAN2

In the case of no CPU node:

0 to 4 node units: No node fan unit is required

5 node units: /NFAN1

6 or 7 node units: /NFAN1/NFAN2

<Rear side>

In the case of one CPU node and node units:

One CPU node + 0 to 4 node units: /NFAN3

One CPU node + 5 or 6 node units: /NFAN3/NFAN4

In the case of no CPU node:

0 to 4 node units: No node fan unit is required

5 node units: /NFAN3

6 or 7 node units: /NFAN3/NFAN4

\*2: Specify 1 or 2. If 1 is specified, one unit is mounted on the front panel, and if 2 is specified, one unit is mounted on each of the front panel and the rear panel.



## ■ MODELS AND SUFFIX CODES OF RELATED PRODUCTS

The following related products are included in the ACUKT1 Kit. Order any new products that will be required when performing additional installation or maintenance work.

### Node fan unit

		Description
<b>Model</b>	ANFAN	Node fan unit
<b>Suffix Codes</b>	-1	Node fan 1 (for upper of front side, power supply cable 2.1 m) (*1)
	-2	Node fan 2 (for lower of front side, power supply cable 1.6 m) (*1)
	-3	Node fan 3 (for upper of rear side, power supply cable 2.7 m) (*1)
	-4	Node fan 4 (for lower of rear side, power supply cable 2.1 m) (*1)

### Fan Unit (for ANFAN)

		Description
<b>Model</b>	AIP611	Fan Unit (for ANFAN)

### Door Fan Unit (for ACUKT1)

		Description
<b>Model</b>	ADFAN	Door Fan Unit (for ACUKT1)

### Power Supply Bus Unit, Vertical Type

		Description
<b>Model</b>	AEPV7D	Power Supply Bus Unit, Vertical Type (for Cabinet Mounting )
<b>Suffix Codes</b>	-1	100 - 120 V AC power supply
	-2	220 - 240 V AC power supply
	-4	24 V DC power supply
	0	For Yokogawa cabinet (for AFV40 □/ACB51)
	1	For general cabinet (*1)
	5	Basic type with no explosion protection
	6	With ISA Standard G3 option and no explosion protection
	E	Basic type with explosion protection
	F	With ISA Standard G3 option and explosion protection

\*1: To install AEPV7D for ACUKT1, specify General Mounting Type.

## ■ APPLICABLE STANDARDS

Refer to the GS “Integrated Production Control System CENTUM VP System Overview” (GS 33J01A10-01EN).

## ■ ORDERING INFORMATION

Specify models and suffix codes when ordering.

## ■ TRADEMARK ACKNOWLEDGMENT

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