



User guide

ABC-CPU systems

Quantity Framework

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1. Quantity Framework

1.1 ABC-CPU Hardware

1.1.1 ABC X-CPU-4 CPU416

Function blocks	FBs
Number	65536
Permissible number	0 to 65535
Maximum size	2 Byte to 64KByte
Functions	FCs
Number	65536
Permissible number	0 to 65535
Maximum size	2 Byte to 64KByte
Data blocks	DBs
Number	65535
Permissible number	0 to 65535
Maximum size	2 Byte to 64KByte
Times	T
Number	2048
Permissible number	0 to 2047
Counter	Z
Number	2048
Permissible number	0 to 2047
Markers	M
Number	16384 Byte
Permissible number	0.0 to 16383.7
Process image Inputs	E
Number	16384 Byte

Permissible number 0.0 to 16383.7

Process image Outputs A

Number 16384 Byte

Permissible number 0.0 to 16383.7

Local data per OB L

Number 16384 Byte

Main memory RAM, buffered

Number 48 Mbyte

Load memory RAM, buffered

Number 64 MByte

Comm.-contracts Objects

Number 10.000

1.1.2 ABC X-CPU-4 CPU416/945

1.1.2.1 X7-CPU945

Function blocks	FBs
Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte
Program blocks	PBs
Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte
Sequence blocks	SBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte
Data blocks	DBs
Number	255
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte
Organization blocks	OBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte
Exp. Function blocks	FXen
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte
Exp. Data blocks	DXen
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte
Times	T
Number	256
Permissible Number	0 to 255

Counter	Z
Number	256
Permissible Number	0 to 255
M-Markers	M
Number	256 * 8 Bit
Permissible Number	0.0 to 255.7
S-Markers	S
Number	4096 * 8 Bit
Permissible Number	0.0 to 4095.7
Process image Inputs	E
Number	128 * 8 Bit
Permissible Number	0.0 to 127.7
Process image Outputs	A
Number	128 * 8 Bit
Permissible Number	0.0 to 127.7
P-Periphery	P
Number	256 Byte
Permissible Number	0..255
Q-Periphery	Q
Number	256 Byte
Permissible Number	0..255
Main memory	RAM, buffered
Number	704 KByte

1.1.2.2 X7-CPU416

Function blocks

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

FBs

Functions

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

FCs

Data blocks

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

DBs

Times

Number	2048
Permissible Number	0 to 2047

T

Counter

Number	2048
Permissible Number	0 to 2047

Z

Markers

Number	16384 Byte
Permissible Number	0.0 to 16383.7

M

Process Image Inputs

Number	16384 Byte
Permissible Number	0.0 to 16383.7

E

Process Image Outputs

Number	16384 Byte
Permissible Number	0.0 to 16383.7

A

Local data per OB

Number	16384 Byte
--------	------------

L

Main memory

Number	RAM, buffered 48 MByte
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RAM, buffered

Load memory
Number

RAM, buffered
64 MByte

Comm.-contracts
Number

Objects
10.000

1.1.3 ABC X-CPU-4 CPU416/948

1.1.3.1 X7-CPU948

Function blocks	FBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Program blocks	PBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Sequence blocks	SBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Data blocks	DBs
Number	255
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Organization blocks	OBs
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Exp. Function blocks	FXen
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Exp. Data blocks	DXen
Number	256
Permissible Number	0 to 255
Maximum size	2 Byte to 64KByte

Times	T
Number	256
Permissible Number	0 to 255

Counter	Z
Number	256
Permissible Number	0 to 255
M-Markers	M
Number	256 * 8 Bit
Permissible Number	0.0 to 255.7
S-Markers	S
Number	4096 * 8 Bit
Permissible Number	0.0 to 4095.7
Process image Inputs	E
Number	128 * 8 Bit
Permissible Number	0.0 to 127.7
Process image Outputs	A
Number	128 * 8 Bit
Permissible Number	0.0 to 127.7
P-Periphery	P
Number	256 Byte
Permissible Number	0..255
Q-Periphery	Q
Number	256 Byte
Permissible Number	0..255
Main memory	RAM, buffered
Number	640 KByte

1.1.3.2 X7-CPU416

Function blocks

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

FBs

Functions

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

FCs

Data blocks

Number	32768
Permissible Number	0 to 32767
Maximum size	2 Byte to 64KByte

DBs

Times

Number	2048
Permissible Number	0 to 2047

T

Counter

Number	2048
Permissible Number	0 to 2047

Z

Markers

Number	16384 Byte
Permissible Number	0.0 to 16383.7

M

Process image Inputs

Number	16384 Byte
Permissible Number	0.0 to 16383.7

E

Process image Outputs

Number	16384 Byte
Permissible Number	0.0 to 16383.7

A

Local data per OB

Number	16384 Byte
--------	------------

L

Main memory

Number	RAM, buffered 48 MByte
--------	---------------------------

RAM, buffered

Load memory
Number

RAM, buffered
64 Mbyte

Comm. - Contracts
Number

Objects
10.000