



User Manual

ABC-CPU Systems

Quantity framework

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Contents

- 1. Quantity framework 4
 - 1.1 ABC-CPU Hardware 4
 - 1.1.1 ABC X-CPU-6 CPU945..... 4
 - 1.1.2 ABC X-CPU-6 CPU948 7
 - 1.1.3 ABC X-CPU-6 CPU416..... 9
 - 1.1.4 ABC X-CPU-6 CPU416/945..... 11
 - 1.1.5 ABC X CPU-6 CPU416/948 15

1. Quantity framework

1.1 ABC-CPU Hardware

1.1.1 ABC X-CPU-6 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

Step 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

Organisation blocks	Obs
Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended function blocks	FXen
Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended data blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

DXen**Timers**

Number	256
Permissible number	0 to 255

T**Counters**

Number	256
Permissible number	0 to 255

Z**M markers**

Number	256 * 8 Bit
Permissible number	0.0 to 255.7

M**S markers**

Number	4096 * 8 Bit
Permissible number	0.0 to 4095.7

S**Process image for inputs**

Number	128 * 8 Bit
Permissible number	0.0 to 127.7

E**Process image for outputs**

Number	128 * 8 Bit
Permissible number	0.0 to 127.7

A**P Peripheral data**

Number	256 Byte
Permissible number	0..255

P**Q Peripheral data**

Number	256 Byte
Permissible number	0..255

Q

Working memory

Number

RAM, battery-backed

704 Kbyte

1.1.2 ABC X-CPU-6 CPU948

Function blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

FBs

Program blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

PBs

Step sequence blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

SBs

Data blocks

Number	255
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

DBs

Organisation blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

OBs

Extended function blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

FXen

Extended data blocks

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

DXen

Timers

T

Number	256
Permissible number	0 to 255

Counters	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 for in-puts	E
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

Process image for out-puts	A
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

P Peripheral data	P
Number	256 Byte
Permissible number	0..255

Q Peripheral data	Q
Number	256 Byte
Permissible number	0..255

Working memory	RAM, battery-backed
Number	1664 KByte

1.1.3 ABC X-CPU-6 CPU416

Function blocks

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FBs

Functions

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FCs

Data blocks

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

DBs

Timers

Number	2048
Permissible number	0 to 2047

T

Counters

Number	2048
Permissible number	0 to 2047

Z

Markers

Number	16384 Byte
Permissible number	0.0 to 16383.7

M

Process image for inputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

E

Process image for outputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

A

Local data per OB

L

Number 16384 Byte

Working memory **RAM, battey-backed**

Number 16 MByte

Loading memory **RAM, battey-backed**

Number 20 MByte

1.1.4 ABC X-CPU-6 CPU416/945

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

Step 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

Organisation blocks

OBs

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended function blocks

FXen

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended data blocks

DXen

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Timers

T

Number	256
Permissible number	0 to 255

Counters	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 for in-puts	E
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

Process image for out-puts	A
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

P Peripheral data	P
Number	256 Byte
Permissible number	0..255

Q Peripheral data	Q
Number	256 Byte
Permissible number	0..255

Working memory	RAM, battey-backed
Number	704 KByte

X7-CPU416

Function blocks

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FBs

Functions

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FCs

Data blocks

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

DBs

Timers

Number	2048
Permissible number	0 to 2047

T

Counters

Number	2048
Permissible number	0 to 2047

Z

Markers

Number	16384 Byte
Permissible number	0.0 to 16383.7

M

Process image for inputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

E

Process image for outputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

A

Local data per OB

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

L

Working memory

Number

RAM, battey-backed

16 MByte

Loading memory

Number

RAM, battey-backed

20 MByte

1.1.5 ABC X CPU-6 CPU416/948

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

Step 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

Organisation blocks

OBs

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended function blocks

FXen

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Extended data blocks

DXen

Number	256
Permissible number	0 to 255
Maximum size	2 Byte to 64KByte

Timers

T

Number	256
Permissible number	0 to 255

Counters	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 for in-puts	E
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

Process image for out-puts	A
Number	128 * 8 Bit
Permissible number	0.0 to 127.7

P Peripheral data	P
Number	256 Byte
Permissible number	0..255

Q Peripheral data	Q
Number	256 Byte
Permissible number	0..255

Working memory	RAM, battey-backed
Number	640 KByte

X7-CPU416

Function blocks

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FBs

Functions

Number	16384
Permissible number	0 to 16383
Maximum size	2 Byte to 64KByte

FCs

Data blocks

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

DBs

Timers

Number	2048
Permissible number	0 to 2047

T

Counters

Number	2048
Permissible number	0 to 2047

Z

Markers

Number	16384 Byte
Permissible number	0.0 to 16383.7

M

Process image for inputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

E

Process image for outputs

Number	16384 Byte
Permissible number	0.0 to 16383.7

A

Local data per OB

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

L

Working memory

Number

RAM, battey-backed

16 MByte

Loading memory

Number

RAM, battey-backed

20 MByte