Data sheet
VIPA CPU 215NET PG (215-2BT13)

Technical data

Order no.	215-2BT13
Type	VIPA CPU 215NET PG

General information

Note	-
Features	work memory [KB]: 128 integrated Ethernet CP243 interface [RJ45]: active Ethernet CP343 & PG/OP-communication interface 2 [RS485]: MPI, PtP: ASCII, STX/ETX, 3964(R) MMC card slot, up to 32 expansion modules, programmable with SPEED7 Studio, SIMATIC Manager and NetPro

Technical data power supply

Power supply (rated value)	DC 24 V
Power supply (permitted range)	DC 20.4...28.8 V
Reverse polarity protection	yes
Current consumption (no-load operation)	140 mA
Current consumption (rated value)	1.5 A
Inrush current	65 A
I^2t	0.75 A^2s
Max. current drain at backplane bus	3 A
Max. current drain load supply	-
Power loss	6 W

Load and working memory

Load memory, integrated	192 KB
Load memory, maximum	192 KB
Work memory, integrated	128 KB
Work memory, maximal	128 KB
Memory divided in 50% program / 50% data	-
Memory card slot	MMC-Card with max. 512 MB

Hardware configuration

Racks, max.	4
Modules per rack, max.	total max. 32
Number of integrated DP master	-
Number of DP master via CP	8
Operable function modules	32
Operable communication modules PtP	32
Operable communication modules LAN	-

Command processing times

Bit instructions, min.	0.18 µs
Word instruction, min.	0.78 µs
Double integer arithmetic, min.	1.8 µs
Floating-point arithmetic, min.	40 µs

Publish date: 11.08.2017

Timers/Counters and their retentive characteristics

Number of S7 counters	256
S7 counter remanence	adjustable 0 up to 64
S7 counter remanence adjustable	C0 .. C7
Number of S7 times	256
S7 times remanence	adjustable 0 up to 128
S7 times remanence adjustable	not retentive

Data range and retentive characteristic

Number of flags	8192 Bit
Bit memories retentive characteristic adjustable	adjustable 0 up to 256
Bit memories retentive characteristic preset	MB0 .. MB15
Number of data blocks	2047
Max. data blocks size	16 KB
Number range DBs	1 ... 2047
Max. local data size per execution level	1024 Byte
Max. local data size per block	1024 Byte

Blocks

Number of OBs	14
Maximum OB size	16 KB
Total number DBs, FBs, FCs	-
Number of FBs	1024
Maximum FB size	16 KB
Number range FBs	0 ... 1023
Number of FCs	1024
Maximum FC size	16 KB
Number range FCs	0 ... 1023
Maximum nesting depth per priority class	8
Maximum nesting depth additional within an error OB	1

Time

Real-time clock buffered	yes
Clock buffered period (min.)	30 d
Type of buffering	Vanadium Rechargeable Lithium Battery
Load time for 50% buffering period	20 h
Load time for 100% buffering period	48 h
Accuracy (max. deviation per day)	10 s
Number of operating hours counter	8
Clock synchronization	-
Synchronization via MPI	-
Synchronization via Ethernet (NTP)	-

Address areas (I/O)

Input I/O address area	1024 Byte
Output I/O address area	1024 Byte
Process image adjustable	-
Input process image preset	128 Byte
Output process image preset	128 Byte

Input process image maximal	128 Byte
Output process image maximal	128 Byte
Digital inputs	8192
Digital outputs	8192
Digital inputs central	512
Digital outputs central	512
Integrated digital inputs	-
Integrated digital outputs	-
Analog inputs	512
Analog outputs	512
Analog inputs, central	128
Analog outputs, central	128
Integrated analog inputs	-
Integrated analog outputs	-

Communication functions

PG/OP channel	yes
Global data communication	yes
Number of GD circuits, max.	4
Size of GD packets, max.	22 Byte
S7 basic communication	yes
S7 basic communication, user data per job	76 Byte
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
S7 communication, user data per job	160 Byte
Number of connections, max.	16

Functionality Sub-D interfaces

Type	MP²I
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Electrically isolated	-
MPI	yes
MP²I (MPI/RS232)	yes
Point-to-point interface	-
5V DC Power supply	max. 90mA, non-isolated
24V DC Power supply	max. 100mA, non-isolated

Functionality MPI

Number of connections, max.	16
PG/OP channel	yes
Routing	-
Global data communication	yes
S7 basic communication	yes
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
Transmission speed, min.	19.2 kbit/s
Transmission speed, max.	187.5 kbit/s

Publish date: 11.08.2017

Functionality RJ45 interfaces

Type	TP
Type of interface	Ethernet 10/100 MBit
Connector	RJ45
Electrically isolated	yes
PG/OP channel	yes
Number of connections, max.	8
Productive connections	yes

Ethernet communication CP

Number of configurable connections, max.	16
Number of productive connections by Siemens NetPro, max.	16
S7 connections	-
User data per S7 connection, max.	-
TCP-connections	SEND, RECEIVE, FETCH PASSIV, WRITE PASSIV, Connection of active and passive data handling
User data per TCP connection, max.	64 KB
ISO-connections	SEND and RECEIVE
User data per ISO connection, max.	8 KB
ISO on TCP connections (RFC 1006)	SEND, RECEIVE, FETCH PASSIV, WRITE PASSIV, Connection of active and passive data handling
User data per ISO on TCP connection, max.	32 KB
UDP-connections	SEND and RECEIVE
User data per UDP connection, max.	2 KB
UDP-multicast-connections	SEND and RECEIVE (max. 16 Multicast groups)
UDP-broadcast-connections	SEND

Datasizes

Input bytes	0
Output bytes	0
Parameter bytes	3
Diagnostic bytes	0

Housing

Material	PPE / PA 6.6
Mounting	Profile rail 35 mm

Mechanical data

Dimensions (WxHxD)	50.8 mm x 76 mm x 80 mm
Net weight	150 g
Weight including accessories	-
Gross weight	-

Environmental conditions

Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C

Certifications

UL certification	yes
KC certification	-

Publish date: 11.08.2017