

Data sheet CPU 115DP (115-6BL23)

## Technical data

Order no.	115-6BL23
Туре	CPU 115DP
Our and information	
General information	
Note	40 (00) insula
Features	16 (20) inputs 16 (12) outputs from which are 2 PWM 50 kHz outputs 24 kB work memory, 32 kB load memory PROFIBUS-DP slave interface
Technical data power supply	
Power supply (rated value)	DC 24 V
Power supply (permitted range)	DC 20.428.8 V
Reverse polarity protection	yes
Current consumption (no-load operation)	160 mA
Current consumption (rated value)	1 A
Inrush current	58 A
²t	0.38 A²s
Max. current drain at backplane bus	0.8 A
Max. current drain load supply	-
Power loss	9 W
Reverse polarity protection	yes
Technical data digital inputs	
Number of inputs	16 (20
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	yes
Current consumption from load voltage L+ (without load)	-
Rated value	DC 24 V
Input voltage for signal "0"	DC 05 V
Input voltage for signal "1"	DC 1528.8 V
Input current for signal "1"	7 mA
Connection of Two-Wire-BEROs possible	yes
Max. permissible BERO quiescent current	1.5 mA
Input delay of "0" to "1"	3 ms
Input delay of "1" to "0"	3 ms
Input characteristic curve	IEC 61131-2, type 1
Initial data size	3 Byte
Technical data digital outputs	
Number of outputs	16 (12
Cable length, shielded	1000 m
Cable length, unshielded	600 m



Reverse polarity protection of rated load voltage   Current Consumption from load voltage   Equitivolation   50 mA   50 mA   70 total current per group, horizontal configuration, 60°C   4 A   70 total current per group, horizontal configuration, 60°C   4 A   70 total current per group, horizontal configuration   4 A   70 total current per group, voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage signal "1" at mix. current   E+ (-0.8 V)   70 total voltage   E+ (-0.8 V)   70 t	Rated load voltage	DC 24 V	A YASKAWA COMPANY
Total current per group, horizontal configuration, 40°C 4 A Total current per group, horizontal configuration, 60°C 4 A Total current per group, vertical configuration  Output votage signal "1" tat min. current  L+ (-125 mV) Output votage signal "1" tat min. current  L+ (-0.8 V) Output coloring signal "1" rated value  0.5 A  Output delay of "0" to "1"  max. 100 µs  Output delay of "1" to "0"  max. 350 µs  Minimum load current  - Lamp load  5 W  Switching frequency with resistive load  max. 1000 µz  Switching frequency with inductive load  max. 100 µz  Switching frequency with inductive load  max. 10 Hz  Internal limitation of inductive for the total part of the total pa	Reverse polarity protection of rated load voltage	-	
Total current per group, horizontal configuration, 60°C 4 A Total current per group, vortical configuration 60°C Usuput voltage signal "1" at main, current L+ (-125 mV) Output voltage signal "1" at main, current L+ (-0.8 V) Output current at signal "1", rated value 0.5 A Output delay of "0" to "1" max. 350 µs Minimum load current - Lamp load 5 W Switching frequency with resistive load max. 100 Nz Switching frequency with notative load max. 100 Nz Switching frequency with inductive load max. 100 Nz Switching frequency on lamp load max. 0.5 Hz Switching frequency on lamp load max. 0.5 Hz Switching frequency on lamp load max. 10 Hz Internal ilmitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters  Number of counters 4 Counter width 32 Bit Maximum input frequency 30 Hz Maximum count frequency 30 Hz Maximum count frequency yes Mode incremental encoder yes Mode pulse of direction yes Mode pulse of direction yes Mode pulse of direction yes Mode frequency counter - Gate input available - Counter output available yes Interrupts yes Interrupts yes Interrupts yes Interrupts yes Diagnostic interrupt yes Diagnostic inter	Current consumption from load voltage L+ (without load)	50 mA	
Total current per group, vertical configuration	Total current per group, horizontal configuration, 40°C	4 A	
Output voltage signal "1" at max. current         L+ (-125 mV)           Output voltage signal "1" at max. current         L+ (-0.8 V)           Output clarent at signal "1", tated value         0.5 A           Output delay of "0" to "1"         max. 380 µs           Minimum load current         -           Lamp load         5W           Switching frequency with resistive load         max. 1000 Hz           Switching frequency with inductive load         max. 10 Hz           Switching frequency on lamp load         max. 10 Hz           Internal limitation of inductive shu-off voltage         L+ (-52 V)           Short-circuit protection of output         yes, electronic           Trigger lovel         1 A           Output data size         3 Byte           Technical data counters           Number of counters         4           Number of counters         4           Number of counters         4           Maximum input frequency         30 Hz           Maximum count frequency         30 Hz           Mode pulse         yes           Mode pulse         yes           Mode frequency counter         -           Mode pulse of measurement         -           Gate input available         -	Total current per group, horizontal configuration, 60°C	4 A	
Output voltage signal *1* at max. current         L+ (-0.8 V)           Output decurrent at signal *1*, rated value         0.5 A           Output delay of *0* to *1*         max. 100 µs           Output delay of *1* to *0*         max. 350 µs           Minimum load current         -           Lamp load         5 W           Switching frequency with resistive load         max. 1000 Hz           Switching frequency with inductive load         max. 0.5 Hz           Switching frequency on lamp load         max. 10 Hz           Internal limitation of inductive shut-off voltage         L+ (-52 V)           Short-circuit protection of output         yes, electronic           Trigger level         1 A           Output data size         3 Byte           Technical data counters           Number of counters         4           Counter width         32 Bit           Maximum pout frequency         30 kHz           Maximum count frequency         30 kHz           Mode juste of direction         yes           Mode juste of direction         yes           Mode putse of direction         yes           Mode putse of direction         yes           Mode putse valiable         -           Latch input available	Total current per group, vertical configuration	4 A	
Output dalay of "0" to "1" max. 100 µs Output delay of "1" to "0" max. 350 µs Minimum load current	Output voltage signal "1" at min. current	L+ (-125 mV)	
Output delay of "0" to "1"         max. 350 µs           Minimum load current         -           Lamp load         5 W           Switching frequency with resistive load         max. 1000 Hz           Switching frequency with resistive load         max. 1000 Hz           Switching frequency on lamp load         max. 10 Hz           Internal limitation of inductive shut-off voltage         L+ (-52 V)           Short-circuit protection of output         yes, electronic           Trigger level         1 A           Output data size         3 Byte           Technical data counters           Number of counters         4           Counter width         32 Bit           Maximum input frequency         30 kHz           Mode incremental encoder         yes           Mode pulse / direction         yes           Mode pulse / direction         yes           Mode preford measurement         -           Gate input available         yes           Mode frequency counter         -           Mode priod measurement         -           Gate input available         -           Reset input available         -           Reset input available         -           Counter output availabl	Output voltage signal "1" at max. current	L+ (-0.8 V)	
Output delay of "1" to "0" max. 350 µs  Minimum load current -  Lamp load 5 W  Switching frequency with resistive load max. 1000 Hz  Switching frequency on lamp load max. 10 Hz  Switching frequency on lamp load max. 10 Hz  Internal limitation of inductive shut-off voltage L+ (-52 V)  Short-circuit protection of output yes, electronic  Trigger level 1 A  Output data size 3 Byte  Technical data counters  Number of counters 4  Counter width 32 Bit  Maximum input frequency 30 kHz  Mode incremental encoder yes  Mode pulse / direction yes  Mode project output available yes  Latch input available -  Counter output available -  Status information, alarms, diagnostics  Status display income  Process alarm yes  Process alarm yes  Process alarm yes  Process play yer on LED  Group error display red SF LED  Channel error display  Fed SF LED  Channel error display  Final Process alarm  Possolation  Between channels of groups to	Output current at signal "1", rated value	0.5 A	
Minimum load current Lamp load Switching frequency with resistive load Switching frequency with inductive load max. 0.5 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 0.7 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters  Number of counters  A Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode pulse / direction yes Mode pulse / with mode pulse / direction yes Mode frequency counter - Mode pomore measurement - Gate input available yes Latch input available - Counter output available - Status information, alarms, diagnostics Status display yes Diagnostic interrupt yes Diagnostic interrupt yes Group error display red SF LED Channel error display none  Isolation  Between channels of groups to	Output delay of "0" to "1"	max. 100 μs	
Lamp load 5 W Switching frequency with resistive load max. 1000 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage Le (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters  Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum input frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode pulse / direction yes Mode protein measurement - Gate input available yes Latch input available - Counter output available - Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Group error display red SF LED Ghannel error display red SF LED Ghannel error display red SF LED Channel error display none  Between channels of groups to 8	Output delay of "1" to "0"	max. 350 μs	
Switching frequency with resistive load max. 1000 Hz Switching frequency on lamp load max. 0.5 Hz Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode pulse / direction yes Mode preprior direction yes Mode preprior available yes Latch input available - Counter output available - Status Information, alarms, diagnostics Status display yes Interrupts yes Diagnostic Interrupt yes Supply voltage display green LED Group error display red SFLED Channel error display none  Between channels of groups to 8	Minimum load current	-	
Switching frequency with inductive load max. 0.5 Hz  Switching frequency on lamp load max. 10 Hz  Internal limitation of inductive shut-off voltage L+ (52 V)  Short-circuit protection of output yes, electronic  Trigger level 1 A  Output data size 3 Byte  Technical data counters  Number of counters 4  Counter width 32 Bit  Maximum input frequency 30 kHz  Maximum count frequency 30 kHz  Mode incremental encoder yes  Mode pulse yes  Mode pulse yes  Mode prod measurement -  Gate input available yes  Latch input available -  Reset input available -  Status display yes  Interrupts yes  Process alarm yes  Diagnostic interrupt yes  Supply voltage display green LED  Group error display red Spreads  Interrupt services and service services of groups to 8	Lamp load	5 W	
Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters  Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency yes Mode pulse / direction yes Mode pulse / direction yes Mode priod measurement - Gate input available yes Latch input available - Counter output available - Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Supation Diagnostics information read-out possible Supply voltage display green LED Group error display none  Isolation  Between channels of groups to 8	Switching frequency with resistive load	max. 1000 Hz	
Internal limitation of inductive shut-off voltage  L+ (-52 V)  Short-circuit protection of output  yes, electronic  Trigger level  1 A  Output data size  3 Byte  Technical data counters  Number of counters  4  Counter width  32 Bit  Maximum input frequency  30 kHz  Maximum count frequency  4 Mode incremental encoder  yes  Mode pulse / direction  yes  Mode priod measurement	Switching frequency with inductive load	max. 0.5 Hz	
Short-circuit protection of output yes, electronic Trigger level 1 A Output data size 3 Byte  Technical data counters  Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode pulse wes west and input available - Cate input available - Reset input available - Counter output available - Status information, alarms, diagnostics Status display yes Diagnostic interrupt yes Diagnostic information read-out possible Supply voltage display green LED Group error display none  Between channels of groups to 8	Switching frequency on lamp load	max. 10 Hz	
Trigger level         1 A           Output data size         3 Byte           Technical data counters           Number of counters         4           Counter width         32 Bit           Maximum input frequency         30 kHz           Maximum count frequency         30 kHz           Mode incremental encoder         yes           Mode pulse / direction         yes           Mode pulse / direction         yes           Mode pulse         yes           Mode period measurement         -           Gate input available         yes           Latch input available         -           Reset input available         -           Reset input available         -           Counter output available         -           Status information, alarms, diagnostics         -           Status display         yes           Interrupts         yes           Process alarm         yes           Diagnostic functions         no           Diagnostics information read-out         possible           Supply voltage display         green LED           Group error display         red SF LED           Channel error display         none	Internal limitation of inductive shut-off voltage	L+ (-52 V)	
Output data size 3 Byte  Technical data counters  Number of counters 4  Counter width 32 Bit  Maximum input frequency 30 kHz  Maximum count frequency 30 kHz  Mode incremental encoder yes  Mode pulse / direction yes  Mode pulse / pes yes  Mode pulse / direction yes  Mode priod measurement -  Gate input available yes  Latch input available -  Counter output available -  Status information, alarms, diagnostics  Status display yes  Diagnostic interrupt yes  Diagnostic functions no  Diagnostics information read-out possible  Group error display red SF LED  Channel error display none  Between channels of groups to 88	Short-circuit protection of output	yes, electronic	
Technical data counters  Number of counters  4  Counter width 32 Bit  Maximum input frequency 30 kHz  Mode incremental encoder yes  Mode pulse / direction yes  Mode pulse / ves  Mode pulse yes  Mode priod measurement - Gate input available Latch input available - Reset input available - Status information, alarms, diagnostics  Status display yes  Interrupts yes  Diagnostic interrupt yes  Diagnostic information read-out Supply voltage display red SF LED  Group error display red SF LED  Channel error display none  Between channels of groups to  8	Trigger level	1 A	
Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode prequency counter - Mode pulse yes Mode frequency counter - Mode period measurement - Gate input available yes Latch input available - Reset input available - Counter output available - Status information, alarms, diagnostics Status display yes Interrupts yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display none  Flexibility  Fl	Output data size	3 Byte	
Number of counters 4 Counter width 32 Bit Maximum input frequency 30 kHz Maximum count frequency 30 kHz Mode incremental encoder yes Mode pulse / direction yes Mode prequency counter - Mode pulse yes Mode frequency counter - Mode period measurement - Gate input available yes Latch input available - Reset input available - Counter output available - Status information, alarms, diagnostics Status display yes Interrupts yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display none  Flexibility  Fl	Tachnical data counters		
Counter width 32 Bit  Maximum input frequency 30 kHz  Maximum count frequency 30 kHz  Mode incremental encoder yes  Mode pulse / direction yes  Mode pulse / direction yes  Mode pulse yes  Mode priod measurement -  Gate input available yes  Latch input available -  Reset input available -  Counter output available -  Status information, alarms, diagnostics  Status display yes  Interrupts yes  Diagnostic interrupt yes  Diagnostic functions no  Diagnostics information read-out possible  Supply voltage display red SF LED  Group error display none  Isolation  Between channels of groups to 8		4	
Maximum input frequency  Maximum count frequency  Mode incremental encoder  Mode pulse / direction  Mode pulse / wes  Mode pulse / wes  Mode pulse / wes  Mode priod measurement			
Maximum count frequency  Mode incremental encoder  Mode pulse / direction  Mode pulse  Mode pulse  Mode press  Mode pulse  Mode press  Mode period measurement			
Mode incremental encoder  Mode pulse / direction  Mode pulse  Mode pulse  Mode frequency counter  Mode period measurement  -  Gate input available  Latch input available  Latch input available  -  Reset input available  -  Counter output available  -  Status information, alarms, diagnostics  Status display  Interrupts  Process alarm  yes  Diagnostic interrupt  yes  Diagnostic functions  no  Diagnostic information read-out  possible  Supply voltage display  green LED  Group error display  red SF LED  Channel error display  none  Between channels of groups to  8			
Mode pulse / direction yes  Mode pulse yes  Mode frequency counter			
Mode pulse yes  Mode frequency counter -  Mode period measurement -  Gate input available yes  Latch input available -  Reset input available -  Counter output available -  Status information, alarms, diagnostics  Status display yes  Interrupts yes  Process alarm yes  Diagnostic interrupt yes  Diagnostic functions no  Diagnostics information read-out possible  Supply voltage display green LED  Group error display red SF LED  Channel error display none  Between channels of groups to 8			
Mode frequency counter  Mode period measurement  Gate input available  Latch input available  Reset input available  Counter output available  -  Status information, alarms, diagnostics  Status display  Interrupts  Process alarm  yes  Diagnostic interrupt  Diagnostic functions  Diagnostics information read-out  Supply voltage display  green LED  Group error display  none  Isolation  Between channels of groups to  8			
Mode period measurement  Gate input available Latch input available - Reset input available - Counter output available - Status information, alarms, diagnostics  Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out Supply voltage display green LED Group error display red SF LED Channel error display  Between channels of groups to  8		yes	
Gate input available Latch input available		-	
Latch input available  Reset input available  Counter output available  -  Status information, alarms, diagnostics  Status display  Interrupts  Process alarm  piagnostic interrupt  Diagnostic functions  Diagnostics information read-out  Diagnostics information read-out  Supply voltage display  Group error display  Channel error display  Description  Isolation  Between channels of groups to	<del> </del>		
Reset input available - Counter output available -  Status information, alarms, diagnostics  Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation  Between channels of groups to 8	· · ·	-	
Counter output available -  Status information, alarms, diagnostics  Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation  Between channels of groups to 8			
Status information, alarms, diagnostics  Status display yes Interrupts yes Process alarm yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation  Between channels of groups to 8	<del></del>		
Status display yes  Interrupts yes  Process alarm yes  Diagnostic interrupt yes  Diagnostic functions no  Diagnostics information read-out possible  Supply voltage display green LED  Group error display red SF LED  Channel error display none  Isolation  Between channels of groups to 8	Counter output available	-	
Interrupts yes Process alarm yes Diagnostic interrupt yes Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation  Between channels of groups to 8	Status information, alarms, diagnostics		
Process alarm yes  Diagnostic interrupt yes  Diagnostic functions no  Diagnostics information read-out possible  Supply voltage display green LED  Group error display red SF LED  Channel error display none  Isolation  Between channels of groups to 8	Status display	yes	
Diagnostic interrupt  Diagnostic functions  no  Diagnostics information read-out  Supply voltage display  Group error display  Channel error display  Isolation  Between channels of groups to	Interrupts	yes	
Diagnostic functions no Diagnostics information read-out possible Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation Between channels of groups to 8	Process alarm	yes	
Diagnostics information read-out possible  Supply voltage display green LED  Group error display red SF LED  Channel error display none  Isolation  Between channels of groups to 8	Diagnostic interrupt	yes	
Supply voltage display green LED Group error display red SF LED Channel error display none  Isolation Between channels of groups to 8	Diagnostic functions	no	
Group error display red SF LED  Channel error display none  Isolation  Between channels of groups to 8	Diagnostics information read-out	possible	
Channel error display none  Isolation  Between channels of groups to 8	Supply voltage display	green LED	
Isolation  Between channels of groups to 8	Group error display	red SF LED	
Between channels of groups to 8	Channel error display	none	
Between channels of groups to 8	Isolation		
		8	
	Between channels and backplane bus	yes	



Insulation tested with	DC 500 V	A YASKAWA COMPANY	
PWM data			
PWM channels	2		
PWM time basis	PWM 0.1ms/1ms / HF-PWM 2.550kHz		
Period length	-		
Minimum pulse width	PWM 160000 * Time base / HF-PWM 460000µs		
Type of output	Highside		
Load and working memory			
Load memory, integrated	32 KB		
Load memory, maximum	32 KB		
Work memory, integrated	24 KB		
Work memory, maximal	24 KB		
Memory divided in 50% program / 50% data	-		
Memory card slot	MMC-Card with max. 5	12 MB	
Hardware configuration			
Racks, max.	1		
Modules per rack, max.	4		
Number of integrated DP master	-		
Number of DP master via CP	4		
Operable function modules	4		
Operable communication modules PtP	4		
Operable communication modules LAN	-		
Command processing times			
Bit instructions, min.	0.25 μs		
Word instruction, min.	1.2 µs		
Double integer arithmetic, min.	2.6 µs		
Floating-point arithmetic, min.	50 μs		
Timers/Counters and their retentive character	ristics		
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		
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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)

**Communication functions** 

Global data communication

PG/OP channel

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	148
Digital outputs central	144
Integrated digital inputs	16 (20
Integrated digital outputs	16 (12
Analog inputs	512
Analog outputs	512
Analog inputs, central	32
Analog outputs, central	16
Integrated analog inputs	-
Integrated analog outputs	-

yes



Number of GD circuits, max.	4	A YASKAWA COMPANY
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		
Туре	MP2	
Type of interface	RS485	
Connector	Sub-D, 9-pin, female	
Electrically isolated	-	
MPI	yes	
MP2I (MPI/RS232)	yes	
DP master	-	
DP slave	-	
Point-to-point interface	-	
5V DC Power supply	max. 90mA, non-isolated	
24V DC Power supply	max. 100mA, non-isolate	d
Туре	DP	
Type of interface	RS485	
Connector	Sub-D, 9-pin, female	
Electrically isolated	yes	
MPI	-	
MP²I (MPI/RS232)	-	
DP master	-	
DP slave	yes	
Point-to-point interface	-	
5V DC Power supply	max. 90mA, isolated	
24V DC Power supply	max. 100mA, non-isolate	d
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	
Functionality PROFIBUS slave		
PG/OP channel	-	



Routing	A YASKAWA COMPANY
S7 communication	
S7 communication as server	-
S7 communication as client	-
Direct data exchange (slave-to-slave communication)	-
DPV1	-
Transmission speed, min.	9.6 kbit/s
Transmission speed, max.	12 Mbit/s
Automatic detection of transmission speed	-
Transfer memory inputs, max.	64 Byte
Transfer memory outputs, max.	64 Byte
Address areas, max.	1
User data per address area, max.	64 Byte
Housing	
Material	PPE / PA 6.6
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	152.4 mm x 76 mm x 48 mm
Weight	330 g
Environmental conditions	
Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C
Certifications	
UL certification	yes
KC certification	-