

## Data sheet

CC 03, Commander Compact (603-1CC21)

**Technical data** 

Type     CC 03, Commander Compact       General information     .       Note     -       Features     Display: 2 x 20 characters Interface.MP4I or 88 Languages.CE.NN, FR, ES, T, SV, NO, DA Project engineering val VPA DP-Manager ProTool Integrated PLC-CPU: 192:48.Byte work/load memory, 18 x DI, 18 x DD, up to 4 UP CP-Manager ProTool Integrated PLC-CPU: 192:48.Byte work/load memory, 18 x DI, 18 x DD, up to 4 UP CPU Appager 93 Simmers ProTool Characters per row       Display     2       Characters per row     20       Characters per row     20       Characters per row     20       Characters per row     20       OP functionality     U       User memory     128 KB       Number of variables     4096       Language     DE/RVFR/ES/IT/SV/NO/DA       Operating controls     -       Touchscreen     -       Number of system keys     8       Number of soft keys     5       Tochnical data power supply     PC       Power supply (refied value)     DC 24 V       Power supply (refied value)     C2 44       Power supply (refied value)     0.8 A       Reverses polarity protection     98	Order no.	603-1CC21
Note -   Features Display: 2 x 20 characters Interface: MP1 User memory: 128 MB Languages: DE, FN, FS, ST, TS, V, NO, DA Project angineering via VIPA ADP-Manager or Biemers ProTool Integrader PLC-QPK. FR, ES, IT, SV, NO, DA   Display -   Number of rows 2   Characters per row 20   Character height 5 mm   Type of display STN with LED backlighting   OP functionality -   User memory 128 KB   Number of variables 4096   Language DE/EN/FR/ES/IT/SV/NO/DA   Operating controls -   Touchscreen -   Number of system keys 8   Number of system keys 5   Number of soft evalue DC 20.428.8 V   Power supply (partited range) DC 20.428.8 V   Reverse polarity protection 96   Current consumption (rated value) 10 mA   Current consumption (rated value) 10 mA   Current consumption (rated value) 0.5 AS   Max. current drain at backplane bus 0.8 A   Max. current drain backplane bus 0.8 A   Max.	Туре	CC 03, Commander Compact
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Max. current drain load supply   -     Power loss   8 W     Reverse polarity protection   yes     Technical data digital inputs   -     Number of inputs   16     Cable length, shielded   1000 m	l²t	0.35 A²s
Power loss 8 W   Reverse polarity protection yes   Technical data digital inputs 16   Number of inputs 1000 m	Max. current drain at backplane bus	0.8 A
Reverse polarity protection yes   Technical data digital inputs 16   Number of inputs 1000 m	Max. current drain load supply	
Technical data digital inputs   Number of inputs 16   Cable length, shielded 1000 m	Power loss	8 W
Number of inputs 16   Cable length, shielded 1000 m	Reverse polarity protection	yes
Cable length, shielded 1000 m	Technical data digital inputs	
	Number of inputs	16
Cable length, unshielded 600 m	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	2 Byte
Technical data digital outputs	
Number of outputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	-
Current consumption from load voltage L+ (without load)	50 mA
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	4 A
Output voltage signal "1" at min. current	L+ (-125 mV)
Output voltage signal "1" at max. current	L+ (-0.8 V)
Output current 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	2 Byte
Technical data counters	
Number of counters	
Counter width	
Maximum input frequency	
Maximum count frequency	
Mode incremental encoder	
Mode pulse / direction	
Mode pulse	
Mode frequency counter	
Mode period measurement	-



Gate input available	-
Latch input available	
Reset input available	
Counter output available	
Status information, alarms, diagnostics	
Status display	yes
Interrupts	no
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	red LED per group
Isolation	
Between channels of groups to	8
Between channels and backplane bus	yes
Insulation tested with	DC 500 V
Load and working memory	
Load memory, integrated	24 KB
Load memory, maximum	24 KB
Work memory, integrated	16 KB
Work memory, maximal	16 KB
Memory divided in 50% program / 50% data	-
Memory card slot	MMC-Card with max. 512 MB
Hardware configuration	
Racks, max.	1
Modules per rack, max.	4
Number of integrated DP master	0
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 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	
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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	4
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	no
Synchronization via Ethernet (NTP)	no
Address areas (I/O)	
Input I/O address area	1024 Bit
Output I/O address area	1024 Bit
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	144
Digital outputs central	144
Integrated digital inputs	16
	-

## YASKAWA VIPA CONTROLS

Integrated digital outputs	16
Analog inputs	512
Analog outputs	512
Analog inputs, central	32
Analog outputs, central	16
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	
Туре	MP <sup>2</sup> I
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Electrically isolated	-
MPI	yes
MP <sup>2</sup> I (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-isolated
Туре	-
Type of interface	
Connector	
Electrically isolated	-
MPI	-
MP²l (MPl/RS232)	-
DP master	-
DP slave	-
Point-to-point interface	
5V DC Power supply	
24V DC Power supply	-
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	-
S7 communication	-
S7 communication as server	-
S7 communication as client	-
Direct data exchange (slave-to-slave communication)	-
DPV1	-
Transmission speed, min.	-
Transmission speed, max.	-
Automatic detection of transmission speed	-
Transfer memory inputs, max.	-
Transfer memory outputs, max.	-
Address areas, max.	-
User data per address area, max.	-
Mechanical data	
Housing / Protection type	
Material	die-cast aluminum
Mounting	via integrated pivoted lever
Protect type front side	IP 65
Protect type back side	IP 20
Dimensions	
Front panel	187 mm x 90 mm x 6 mm
Rear panel	154 mm x 77 mm x 55 mm
Installation cut-out	
Width	156 mm
Height	78 mm
Minimum	2.5 mm
Maximum front panel thickness	6 mm
Net weight	580 g
Environmental conditions	
Operating temperature	0 °C to 60 °C
Storage temperature	-20 °C to 70 °C
Certifications	
UL certification	yes