Status: 03/2023

Label printers

for printing with two colors

XC Q

Made in Germany

XC Q label printers for printing with two colors

Particularities

- **300 dpi,** printable as wide as 105.7 mm or 162.6 mm
- **Heating** can be assigned separately to each print head.
- If **printing only with print head 2,** print head 1 is lifted by menu control.
- **Automated ribbon saving** is provided on print head 1. The print head is lifted and the ribbon is stopped during material feed.
- **Continuous print images** when cutting at no backfeed
- **Optimized printing,** so that multiple print jobs can be printed seamless
- **CSQ 402 cutters** are provided for XC Q4 printers, **CU600 cutters** for XC Q6.3.
- **Find documentation** on the Internet. DVDs are no longer part of delivery.

Types of printers

1.1

XC Q4 providing a tear-off plate
All materials wound on a roll can be printed.

Label printer		XC Q4
Print resolution	dpi	300
Print speed	mm/s max.	150
Print width	mm max.	105.7
Width of a material	mm max.	114

1.2

XC Q4 providing a CSQ 402 cutter
Paper labels and self-adhesive labels, cardboard and synthetic materials can be cut.

Label printer		XC Q4-C2
Print resolution	dpi	300
Print speed	mm/s max.	150
Print width	mm max.	105.7
Width of a material	mm max.	114
Tray	Materials as wide as mm	100

1.3

XC Q6.3 providing a tear-off plate
All materials wound on a roll can be printed.

Label printer		XC Q6.3
Print resolution	dpi	300
Print speed	mm/s max.	150
Print width	mm max.	162.6
Width of a material	mm max.	180

Technical data

● typical ■ standard □ option

Label printer			XC Q4	XC Q6.3
Guidance of materials			aligned to the left	
Print method		Thermal transfer	●	
Print resolution		dpi	300	300
Print speed		mm/s max.	150	150
Print width		mm max.	105.7	162.6
Automated ribbon saving			●	●
Material[1]				
Paper, cardboard, synthetics PET, PE, PP, PI, PVC, PU, acrylate, Tyvec			●	
Textile tape			●	-
Finishing	Roll		●	
	Roll diameter	mm max.	300	
	Core diameter	mm	76	
	Winding		outside or inside	
Label	Width	mm	20 - 116	46 - 176
	Height	mm at least	20	
	Thickness	mm max.	0.1	
Liner	Width	mm	24 - 120	50 - 180
	Thickness	mm max.	0.1	
Continuous	Width	mm	24 - 120	50 - 180
	Thickness	mm max.	0.3	
	Weight (cardboard)	g/m² max.	300	
Ribbon[2]	Color side		outside or inside	
	Roll diameter	mm max.	80	
	Core diameter	mm	25.4	
	Length	m max.	450	
	Width	mm max.	114	170
Printer dimensions, weights				
Width x Height x Depth		mm	248 x 395 x 554	358 x 395 x 554
Weight		kg	22	24
Label sensors, position indicators				
Transmissive sensor		detecting	labels, punch marks, materials ending, print marks on translucent materials	
Reflective sensor	from below or top	detecting	labels, materials ending, print marks on non-translucent materials	
Sensor distance	to locating edge	mm	5 - 60	
Material passage		mm max.	2	
Interfaces				
RS232-C 1,200 to 230,400 baud / 8 bit			■	
USB 2.0 Hi-Speed device to plug a PC			■	
Ethernet 10/100 Mbit/s			LPD, RawIP printing, SOAP web service, OPC UA, WebDAV DHCP, HTTP/HTTPS, FTP/FTPS, TIME, NTP, Zeroconf, SNMP, SMTP, VNC	
1 USB host on the control panel		for plugging	a service key, an USB stick, USB WLAN stick, USB Bluetooth adapter	
2 USB hosts on the back of a unit		for plugging	a keyboard, barcode scanner, an USB stick, USB WLAN stick, USB WLAN stick with a rod antenna, USB Bluetooth adapter, external operation panel	
USB host, 24 VDC, for peripheral plugging			■	
Digital I/O interface providing 8 inputs and 8 outputs			□	
Operating data				
Voltage			100 - 240 VAC, 50/60 Hz, PFC	
Consumption of power			<10 W in standby / 100 W in typical operation	
Temperature / humidity		Operation	+5 - 40°C / 10 - 85 %, not condensing	
		Stock	0 - 60°C / 20 - 85 %, not condensing	
		Transport	–25 - 60°C / 20 - 85 %, not condensing	
Approvals			CE, FCC Class A, ICES-3, cULus, CB, CCC	
		under examination	CoC Mexico, EAC, BIS, BSMI, KC-Mark	
Control panel				
Color LCD	Diagonal	"	4.3	
touchscreen	Resolution Width x Height	px	272 x 480	

[1] Specifications are standards. Operations including small, slim, thick or stiff materials need testing, so do strongly adhesive labels.
[2] A ribbon should be at least as wide as the liner material.

Technical data

■ standard ☐ option

Setup options		
	Print Labels Ribbon Tear off Cut Interfaces Error	Region: - Language - Country - Keyboard - Time zone Time Display: - Brightness - Power saving mode - Orientation Interpreter
Status bar		
	Receive data Record datastream Warning to a ribbon ending SD memory card plugged USB stick plugged	Bluetooth WLAN Ethernet USB slave Time
Controls		
	Ribbon 1/2 - Winding - Prior warning - End of ribbon Running out of material	Print head 1/2 - Voltage - Temperature - open Peripheral error
Test routines		
System diagnostics	upon startup, detection of print head included	
Information display, test printout, analysis	Status printout Fonts list List of units WLAN status	Test grid Label profile List of events Monitor mode
Status reports	- Printout of print durations, running hours, etc. - Status of a unit requested by software command - Display of errors related to a network, barcode or peripheral device, as well as links missing	
Fonts		
Integral	5 bitmap fonts: 12 x 12 dots 16 x 16 dots 16 x 32 dots OCR-A OCR-B	7 vector fonts: AR Heiti Medium GB-Mono CG Triumvirate Condensed Bold Garuda HanWangHeiLight Monospace 821 Swiss 721 Swiss 721 Bold
For storing	TrueType fonts	
Sets of characters	Windows-1250 to -1257 DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869 EBCDIC 500 ISO 8859-1 to -10 and -13 to -16 WinOEM 720 UTF-8 MacRoman DEC MCS KOI8-R Western European Eastern European Chinese, simplified Chinese, traditional Thai	Cyrillic Greek Latin Hebrew Arabian
Bitmap	1 mm to 3 mm wide and high Zoom factors 2 to 10 0°, 90°, 180°, 270° orientations	
Vector / TrueType	0.9 mm to 128 mm wide and high Continuous zoom 360° orientation in steps of 1°	
Styles	bold, italic, underlined, outline, inverse - depending on the font type	
Character spacing	proportional or monospace	
Graphics		
Elements	lines, arrows, rectangles, circles, ellipses - filled or gradient	
Formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG	

Codes		
1D barcodes (linear)	Code 39, Code 93 Code 39 Full ASCII Code 128 A, B, C EAN 8, 13 EAN/UCC 128/GS1-128 EAN/UPC Appendix 2 EAN/UPC Appendix 5 FIM HIBC	Interleaved 2/5 Ident and routing code of Deutsche Post Codabar JAN 8, 13 MSI Plessey Postnet RSS 14 UPC A, E, E0
2D code, stacked codes	DataMatrix DataMatrix Rectangle Extension QR-Code Micro QR-Code GS1 QR-Code GS1 DataMatrix PDF 417 Micro PDF 417 UPS Maxicode GS1 DataBar Aztec Codablock F Dotcode RSS 14 truncated, limited, stacked, stacked omni-directional	
	All codes may vary in height, modular width and ratio. 0°, 90°, 180°, 270° orientations Feasibility of check digits, plain text printouts and start/stop coding depends on the type of code.	

Software		
Label software	cablabel S3 Lite cablabel S3 Viewer cablabel S3 Pro cablabel S3 Print	■ ■ ☐ ☐
Running also with	CODESOFT NiceLabel BarTender	
Stand-alone operation		■
Windows printer drivers for	Windows 10 Windows 11 Server 2016 Server 2019 Server 2022 Certification WHQL in preparation	■
Apple printer drivers	Mac OS X 10.6 or any later release minimum driver version 1.46	■
Linux printer drivers	CUPS 1.2 or any later release minimum driver version 1.46	■
Programming	JScript printer language abc Basic Compiler ZPL II (datastream be tested in advance)	■ ■ ☐
Integration	SAP Database Connector	■ ■
Administration	Printer control Configuration on the Intranet and Internet	■ ■

Free and Open Source software in cab products:
www.cab.de/opensource

OPC UA

All the latest cab printers have been designed ready for interacting with machines and components of different manufacturers in industrial plants. An OPC UA server is part of the firmware.

See further information on
www.cab.de/en/opcua

Accessories / optional equipment

2.1		**SD memory card**
2.2		**USB stick**
2.3		**USB WLAN stick** 2.4 GHz 802.11b/g/n Hotspot mode or infrastructure mode
2.4		**USB WLAN stick with a rod antenna** for extended range of operation 2.4 GHz 802.11b/g/n + 5 GHz 802.11a/n/ac Hotspot mode or infrastructure mode
2.5		**USB Bluetooth adapter**

2.7		**Digital I/O interface** Labeling is triggered via a PLC, a sensor or a hand switch. Status reports and errors are displayed simultaneously.
2.8		**I/O interface plug** SUB-D, 25 pins, for connecting all control signals to the I/O interface

3.1

CSQ 402

5.1

CU400/600

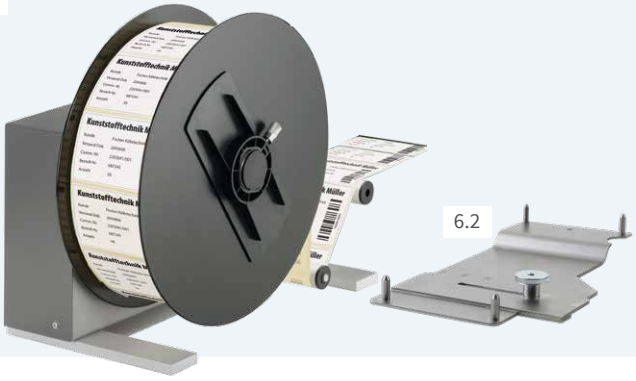
Cutters
Paper, cardboard, textile and synthetic materials can be cut.

A CSQ can be pivoted to simplify material changeover.
A tray allows collecting a maximum of 50 labels.
Label heights can be adjusted.

A CU400 is still recommended with textile operations.

Cutter	CSQ 402	CU400	CU600
Operated with	XC Q4	XC Q4	XC Q6.3
Material:			
Passage width mm max.	120	120	180
Passage height mm max.	2.0	2.0	2.0
Weight (cardboard) gr/m² max.	300	300	300
Thickness mm max.	1.1	1.1	1.1
Cutting length mm at least	10	5	5
Tray Materials as wide as mm	100	100	-
Performance cuts/min at use of material 1 mm high, no backfeed	200	100	100
Controls	no final cutter position		
	cutter cover removed	-	-

6.1



6.2

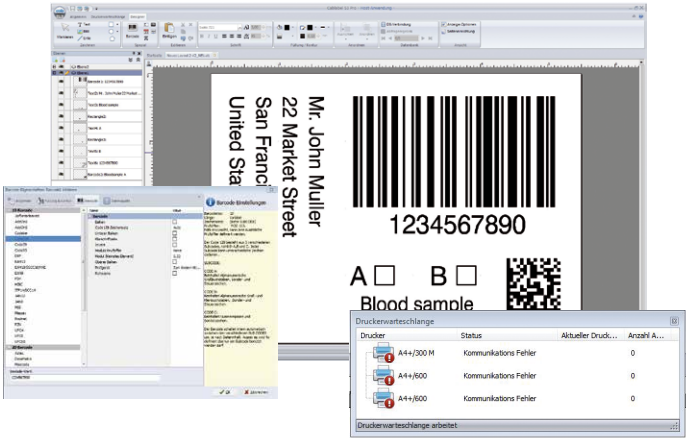
External ER4, ER6 rewinders, power supply built in
Label webs may be wound outside or inside. They are wound consistently and tight by electronic control, with a pendulum arm.

External rewinder	ER4/300	ER6/300
Operated with	XC Q4	XC Q6.3
Width of a material mm max.	120	180
Roll diameter mm max.	300	
Core diameter mm	40 if a winder axle or a cardboard core are in use 76 if a cardboard core is in use with an adapter	
Winding	outside or inside	
Adapter kit	☐	☐

cablabel S3 software

Design, print, administrate

cablabel S3 opens up the full potential of cab devices. Defining a label is first. Modular design adapts cablabel S3 to requirements step by step. Plug-ins are embedded. Native JScript programming, for example, is supported by the JScript Viewer. The designer user interface and JScript codes synchronize in real time. Optional features can be integrated, such as the Database Connector or barcode verifiers.



See further information on
www.cab.de/en/cablabel

Stand-alone operation

This operating mode enables a printer select and print labels while not connected to a host system. Labels can be designed using software such as cablabel S3 or a text editor on a PC. Label formats, texts, graphics and data of a database can be stored on a memory card, a USB stick or a printer's IFFS memory. Only variable data are sent by a keyboard, a barcode scanner, a scale or any other host system to a printer, or be recalled by the Database Connector from a host and printed.

Printer control

Drivers

cab provides drivers to control a printer with software other than cablabel S3.

Free download on **www.cab.de/en/support**

Programming

JScript
cab printers embed JScript language.
Download free manual on **www.cab.de/en/programming**

abc Basic Compiler
Integral to the firmware, abc in addition to JScript enables advanced programming before data are edited for printout.
For example, external printer languages can be replaced without intervening in a print job in progress. Data may be imported as well from other systems such as scales, barcode scanners or PLC.

Integration

Printer Vendor program
cab as a member of this program developed a replace method for controlling cab printers from SAP[1)] R/3 using SAPScript. Only variable data are sent by a host system to a printer. They add on the printer to local images and fonts (IFFS, memory card, etc.).

Printer administration

Configuration on the Intranet und Internet

Integral HTTP / FTP servers enable a printer be controlled or configured, firmware be updated and memory cards be administrated using standard applications such as a web browser or a FTP client. Administrators and operators on behalf of SNMP / SMTP are notified of states, alerts and errors by email or SNMP datagrams. Time and date are synchronized by a time server.

Database Connector

Printers in a network may access data from a ODBC / OLEDB database and print it on labels. Data can be rewritten to a database while print jobs are in progress.

[1)] SAP and associated logos are trademarks or registered trademarks of SAP SE.

Delivery program

Label printers

Pos.		Item no.	Designation
1.1		6011520	XC Q4 label printer
1.2		6011522	XC Q4-C2 label printer with a CSQ 402 cutter
1.3		6011525	XC Q6.3 label printer

xxxxxxx.250 options assembled

Wear parts

Pos.		Item no.	Designation
		5987089.001 5987097.001	Print head 4/300 X Print head 6.3/300 X
		5954180.001 5954245.001	DR4 print roller DR6 print roller

Scope of delivery

Label printer
Type E+F power cable, 1.8 m
Connecting USB cable, 1.8 m
Instructions DE / EN

Provided online

https://setup.cab.de/en

Instructions
Configuration manuals DE / EN / FR
Service manuals DE / EN in preparation
Spare parts lists DE / EN
Programming manual EN
Windows printer drivers for
Windows 10 Server 2016
Windows 11 Server 2019
Server 2022
Certification WHQL in preparation
Apple Mac OS X printer drivers DE / EN / FR
Linux printer drivers DE / EN / FR
cablabel S3 Lite software
cablabel S3 Viewer
Database Connector

Accessories

Accessorial products are plugged
or screwed to a printer by a customer.

See further accessories on
www.cab.de/en/xcq-accessories

Optional equipment

Options are parts or units to perform special functions.
They are assembled to a printer in addition to or instead of standards.
If order implies options be assembled ex factory,
corresponding item numbers are added by .250.
Options delivered separately are added by .001.

Accessories / optional equipment

Pos.		Item no.	Designation
2.1		5977370	SD memory card
2.2		5977730	USB stick
2.3		5978912	USB WLAN stick 2.4 GHz 802.11b/g/n
2.4		5977731	USB WLAN stick with a rod antenna 2.4 GHz 802.11b/g/n + 5 GHz a/n/ac
2.5		5977732	USB Bluetooth adapter
5.1		5978900	CU400 cutter tray provided
		5979033	CU600 cutter
6.1		5946090 5946420	External ER4/300 rewinder External ER6/300 rewinder
6.2		6011796 6011797	XC Q4 adapter kit XC Q6.3 adapter kit
3.1		5984565.xxx	CSQ 402 cutter
2.7		5551447.xxx	Digital I/O interface
2.8		5917651.xxx	I/O interface plug SUB-D, 25 pins

xxx - .250 assembled to a printer
.001 separate delivery
resp. spare part

Delivery program

Label software

Pos.		Item no.	Designation
11.7		Bundle 5588001 5588100 5588101 5588150 5588151 5588152 5588002 5588105 5588106 5588155 5588156 5588157 in preparation	cablabel S3 Lite (download on cab.de/en) cablabel S3 Pro 1 WS cablabel S3 Pro 5 WS cablabel S3 Pro 10 WS cablabel S3 Pro 1 additional licence cablabel S3 Pro 4 additional licences cablabel S3 Pro 9 additional licences cablabel S3 Print 1 WS cablabel S3 Print 5 WS cablabel S3 Print 10 WS cablabel S3 Print 1 additional licence cablabel S3 Print 4 additional licences cablabel S3 Print 9 additional licences cablabel S3 Print Server
11.10		9008486	Programming manual EN, printed copy

Scopes of delivery, designs and technical data correspond to the date of this publication. They are subject to change. Catalog data do not represent any warranty or guarantee.

User languages

Language	Instruc-tions	Control panel	Windows driver	Service manual	cablabel S3
European Union					
Bulgarian	○	X	X		X
Danish	○	X	X		
German	X	X	X	○	X
Estonian	○	X	X		
Finnish	○	X	X		
French	X	X	X		X
Greek	○	X	X		
English	X	X	X	○	X
Italian	○	X	X		X
Croatian	○	X	X		X
Latvian	○	X	X		
Lithuanian	○	X	X		
Dutch	○	X	X		
Polish	○	X	X		X
Portuguese	○	X	X		
Romanian	○	X	X		
Swedish	○	X	X		
Slovak	○	X	X		
Slowenian	○	X	X		
Spanish	○	X	X		X
Czech	○	X	X		X
Hungarian	○	X	X		
Europe (Non-EU)					
Macedonian	○	X	X		
Norwegian	○	X	X		
Russian	○	X	X		X
Serbian	○	X	X		
Turkish	○	X	X		
Asia					
Chinese (simplified)	○	X	X		X
Chinese (traditional)	○	X	X		X
Japanese	○	○	X		
Korean	○	○	X		X
Thai	○	X	X		
Middle East					
Persian		X			
Arabian		X			

○ in preparation