cab
we identify more

# Label printers
for printing with two colors

# XC Q
Made in Germany

# XC Q label printers for printing with two colors



## Highlights

- **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. Opening or closing the print head
  may result in stress marks on wax ribbons.

- **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 long 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 | 10 | |
| | Thickness | mm max. | 0.1 | |
| Liner | Width | mm | 24 - 120 | 50 - 180 |
| | Thickness | mm | 0.03 - 0.16 | |
| Continuous | Width | mm | 24 - 120 | 50 - 180 |
| | Thickness | mm | 0.03 - 0.5 | |
| | 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 | |
| **Electronics** | | | | |
| Processor, 32 bit clock rate | | MHz | 800 | |
| RAM | | MB | 256 | |
| IFFS | | MB | 50 | |
| Port for plugging a SD memory card (SDHC, SDXC) | | GB max. | 512 | |
| Battery for indicating time and date, real-time clock | | | ■ | |
| Data kept in memory (e.g. serial numbers) when power turns off | | | ■ | |
| **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 | |
| 2 USB hosts on the control panel, 2 USB hosts on the back of a unit | | | Service key, USB stick, USB WLAN stick, USB WLAN stick with a rod antenna keyboard, barcode scanner, external control panel | |
| USB host, 24 VDC, for peripheral plugging | | | ■ | |
| Digital I/O interface providing 8 inputs and 8 outputs | | | ☐ | |

[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

## Operating data

| | |
|---|---|
| Voltage | 100-240 VAC, 50/60 Hz, PFC |
| Consumption of power | <10 W in standby / 100 W in typical operation / max. 200W |
| 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, BSMI, Mexico Reg. |
| in preparation | KC-Mark, BIS |

## Control panel

| | | | |
|---|---|---|---|
| Color LCD touchscreen | Diagonal | " | 4.3 |
| | Resolution Width x Height | px | 480 x 272 |

## Setup options

| | | |
|---|---|---|
| | Print<br>Labels<br>Ribbon<br>Tear off<br>Cut<br>Interfaces<br>Error | Region:<br>- Language<br>- Country<br>- Keyboard<br>- Time zone<br>Time<br>Display:<br>- Brightness<br>- Power saving mode<br>- Orientation<br>Interpreter |

## Status bar

| | | |
|---|---|---|
| | Receive data<br>Record datastream<br>Warning to a ribbon ending<br>SD memory card plugged<br>USB stick plugged | WLAN<br>Ethernet<br>USB Slave<br>Time |

## Controls

| | | |
|---|---|---|
| | Ribbon 1/2<br> - Winding<br> - Prior warning<br> - End of ribbon<br>Running out of material | Print head 1/2<br> - Voltage<br> - Temperature<br> - open<br>Peripheral error |

## Test routines

| | | |
|---|---|---|
| System diagnostics | upon startup, detection of print head included | |
| Information display, test printout, analysis | Status printout<br>Fonts list<br>List of units<br>WLAN status | Test grid<br>Label profile<br>List of events<br>Monitor mode |
| Status reports | - Printout of print durations, running hours, etc.<br>- Status of a unit requested by software command<br>- Display of errors related to a network, barcode<br>  or peripheral device, as well as links missing | |

## Fonts

| | | |
|---|---|---|
| Integral | 5 bitmap fonts:<br>12 x 12 dots<br>16 x 16 dots<br>16 x 32 dots<br>OCR-A<br>OCR-B | 7 vector fonts:<br>AR Heiti Medium GB-Mono<br>CG Triumvirate Condensed Bold<br>Garuda<br>HanWangHeiLight<br>Monospace 821<br>Swiss 721<br>Swiss 721 Bold |
| For storing | TrueType fonts | |
| Sets of characters | Windows-1250 to -1257<br>DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869<br>EBCDIC 500<br>ISO 8859-1 to -10 and -13 to -16<br>WinOEM 720<br>UTF-8<br>MacRoman<br>DEC MCS<br>KOI8-R | |
| | Western European<br>Eastern European<br>Chinese, simplified<br>Chinese, traditional<br>Thai | Cyrillic<br>Greek<br>Latin<br>Hebrew<br>Arabian |

## Fonts

| | |
|---|---|
| Bitmap | 1 mm to 3 mm wide and high<br>Zoom factors 2 to 10<br>0°, 90°, 180°, 270° orientations |
| Vector / TrueType | 0.9 mm to 128 mm wide and high<br>Continuous zoom<br>360° orientation in steps of 1° |
| Styles | bold, italic, underlined, outline, inverse<br>- depending on the font type |
| Character spacing | proportional or monospace |

## Graphics

| | |
|---|---|
| Elements | lines, arrows, rectangles, circles, ellipses<br>- filled or gradient |
| Formats | PCX, IMG, BMP, TIF, MAC, GIF, PNG |

## Codes

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

## Software

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

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

# 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.).

## 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.

# 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.

# 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**

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

# Accessories / optional equipment

| | | |
|---|---|---|
| 2.1 | | **SD memory card** |
| 2.2 | | **USB stick** |
| 2.3 | | **USB WLAN stick** <br> 2.4 GHz 802.11b/g/n <br> Hotspot mode or infrastructure mode |
| 2.4 | | **USB WLAN stick with a rod antenna** <br> for extended range of operation <br> 2.4 GHz 802.11b/g/n + 5 GHz 802.11a/n/ac <br> Hotspot mode or infrastructure mode |
| 2.6 | | **I/O interface plug** <br> SUB-D, 25 pins, for connecting <br> all control signals to the I/O interface |

| | | |
|---|---|---|
| 2.7 | | **Digital I/O interface** <br> Labeling is triggered via a PLC, a sensor <br> or a hand switch. Status reports and errors <br> are displayed simultaneously. |
| 2.8 | | **Fanfold guide for XC Q4 and XC Q6.3** <br> Fanfold labels are inserted behind the <br> print head. A guide in addition to a brake <br> enable the labels be fed reliably to the <br> print mechanics. |

# Cutting, rewinding

**3.1**

**CSQ 402**

**5.1**

**CU400/600**

**6.1**

**6.2**

**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/m$^2$ 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 | 200 | 100 | 100 |
| at use of material 1 mm high, no backfeed | | | | |
| Controls | | no final cutter position | | |
| | | cutter cover removed | - | - |

**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** | | ☐ | ☐ |

# 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
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 |
| 2.6 |  | 5917651.xxx | I/O interface plug SUB-D, 25 pins |
| 2.7 |  | 5551447.xxx | Digital I/O interface |
| 2.8 |  | 6011930.xxx | Fanfold guide XC Q |
| 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 |

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

# Delivery program

## Label software

| Pos. | Item no. | Designation |
|------|----------|-------------|
| 11.7 | Bundle | cablabel S3 Lite (download on cab.de/en) |
|  | 5588001 | cablabel S3 Pro 1 WS |
|  | 5588100 | cablabel S3 Pro 5 WS |
|  | 5588101 | cablabel S3 Pro 10 WS |
|  | 5588150 | cablabel S3 Pro 1 additional licence |
|  | 5588151 | cablabel S3 Pro 4 additional licences |
|  | 5588152 | cablabel S3 Pro 9 additional licences |
|  | 5588002 | cablabel S3 Print 1 WS |
|  | 5588105 | cablabel S3 Print 5 WS |
|  | 5588106 | cablabel S3 Print 10 WS |
|  | 5588155 | cablabel S3 Print 1 additional licence |
|  | 5588156 | cablabel S3 Print 4 additional licences |
|  | 5588157 | cablabel S3 Print 9 additional licences |
|  | in preparation | 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 |  | X |
| Danish | X | X | X |  |  |
| German | X | X | X | X | X |
| Estonian | X | X | X |  |  |
| Finnish | X | X | X |  |  |
| French | X | X | X |  | X |
| Greek | X | X | X |  |  |
| English | X | X | X | X | X |
| Italian | X | X | X |  | X |
| Croatian | X | X | X |  | X |
| Latvian | X | X | X |  |  |
| Lithuanian | X | X | X |  |  |
| Dutch | X | X | X |  |  |
| Polish | X | X | X |  | X |
| Portuguese | X | X | X |  |  |
| Romanian | X | X | X |  |  |
| Swedish | X | X | X |  |  |
| Slovak | X | X | X |  |  |
| Slowenian | X | X | X |  |  |
| Spanish | X | X | X |  | X |
| Czech | X | X | X |  | X |
| Hungarian | X | X | X |  |  |
| **Europe (Non-EU)** | | | | | |
| Macedonian | X | X | X |  |  |
| Norwegian | X | X | X |  |  |
| Russian | X | X | X |  | X |
| Serbian | X | X | X |  |  |
| Turkish | X | X | X |  |  |
| **Asia** | | | | | |
| Chinese (simplified) | X | X | X |  | X |
| Chinese (traditional) | X | X | X |  | X |
| Japanese | X |  | X |  |  |
| Korean | X |  | X |  | X |
| Thai | X | X | X |  |  |
| **Middle East** | | | | | |
| Persian |  | X |  |  |  |
| Arabian |  | X |  |  |  |

# Overview of cab products

Label printers
**MACH1, MACH2**

Label printers
**EOS 2**

Label printers
**EOS 5**

Label printers
**MACH 4S**

Label printers
**SQUIX 2**

Label printers
**SQUIX 4**

Label printers
**SQUIX 6.3**

Label printers
**SQUIX 8.3**

Label printers
**XD Q** double-sided

Label printers
**XC** two-colored

Print and apply systems
**HERMES Q**

Print and apply systems
**Hermes C** two-colored

Tube labeling systems
**AXON 1**

Print modules
**PX Q**

Labels and ribbons

Label software
**cablabel S3**

Label dispensers
**HS, VS**

Labeling heads
**IXOR**

Marking lasers
**XENO 4**

Laser marking systems

See product information on **www.cab.de/en**

Germany
**cab Produkttechnik GmbH & Co KG**
Karlsruhe
Phone +49 721 6626 0
*www.cab.de*

France
**cab Technologies S.à.r.l.**
Niedermodern
Phone +33 388 722501
*www.cab.de/fr*

USA
**cab Technology, Inc.**
Chelmsford, MA
Phone +1 978 250 8321
*www.cab.de/us*

Mexico
**cab Technology, Inc.**
Juárez
Phone +52 656 682 4301
*www.cab.de/es*

Taiwan
**cab Technology Co., Ltd.**
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Phone +886 (02) 8227 3966
*www.cab.de/tw*

China
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Singapore
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South Africa
**cab Technology (Pty) Ltd.**
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