Specifications TTX x50 / 67x

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Technical Specifications

Device types, use

TTX 450/674 Puma/Puma plus S 45	Label printing using thermal or thermal transfer printing process, print width up to 106.6 mm (4 inch)
TTX 650/675 Lion/Lion plus S 65	Label printing using thermal or thermal transfer printing process, print width up to 127.9 mm (5 inch)
TTX 950 Tiger S 95	Label printing using thermal or thermal transfer printing process, print width up to 159.9 mm (6 inch)
TTX 1050 Tiger XXL S 105	Label printing using thermal or thermal transfer printing process, print width up to 213.2 mm (8 inch)

Dimensions

Printer type	Cutter	Width / mm	Height / mm	Depth / mm	Weight / kg
TTX 450/Puma/S45		310	305	480	21,0
	✓	310	305	540	22,5
TTX 650/674/675/ Puma/Puma plus/ Lion/Lion plus/S65		350	305	480	22,5
	✓	350	305	540	24,0
TTX 950/Tiger/S95		380	305	480	25,0
	✓	380	305	540	26,5
TTX 1050/Tiger XXL/ S105		470	305	480	28,0
	✓	470	305	540	29,5

Tab. 1 Dimensions and weights of the printers in the TTX x50 and TTX 67x series. All width measures refer to the housing including the motor cover. All width measures refer to the housing including the motor cover.

Performance data

Print technology Thermal printing, thermal transfer printing

Printhead "Near Edge Type" type printhead, high-definition, fast, with integrated temperature control

Resolution 12 dots/mm (300 dpi)

Print speed

TTX 450/S45/Puma	100 to 300 mm/s (4 to 12 “/s)
TTX 674/Puma plus	100 to 300 mm/s (4 to 12 “/s)
TTX 675/Lion plus	100 to 300 mm/s (4 to 12 “/s)
TTX 650/S65/Lion	100 to 300 mm/s (4 to 12 “/s)
TTX 950/S95/Tiger	100 to 250 mm/s (4 to 10 “/s)
TTX 1050/S105/XXL	100 to 200 mm/s (4 to 8 “/s)

in units of respectively 25,4 mm/s (1 “/s)

Print width (actual)

TTX 450/S45/Puma	106.6 mm
TTX 674/Puma plus	106,6 mm
TTX 650/S65/Lion	127.9 mm
TTX 675/Lion plus	127,9 mm
TTX 950/S95/Tiger	159.9 mm
TTX 1050/S105/XXL	213.2 mm

Impression accuracy Printing direction (Y-):

The impression accuracy depends on the print position. With the printout starting directly at the gap position, the accuracy is ± 0.5 mm. A distance between gap (that is label start) and print position, will add ± 1% of this distance to the accuracy fault (see illustration in the Appendix).

X-direction: +/- 0.5 mm

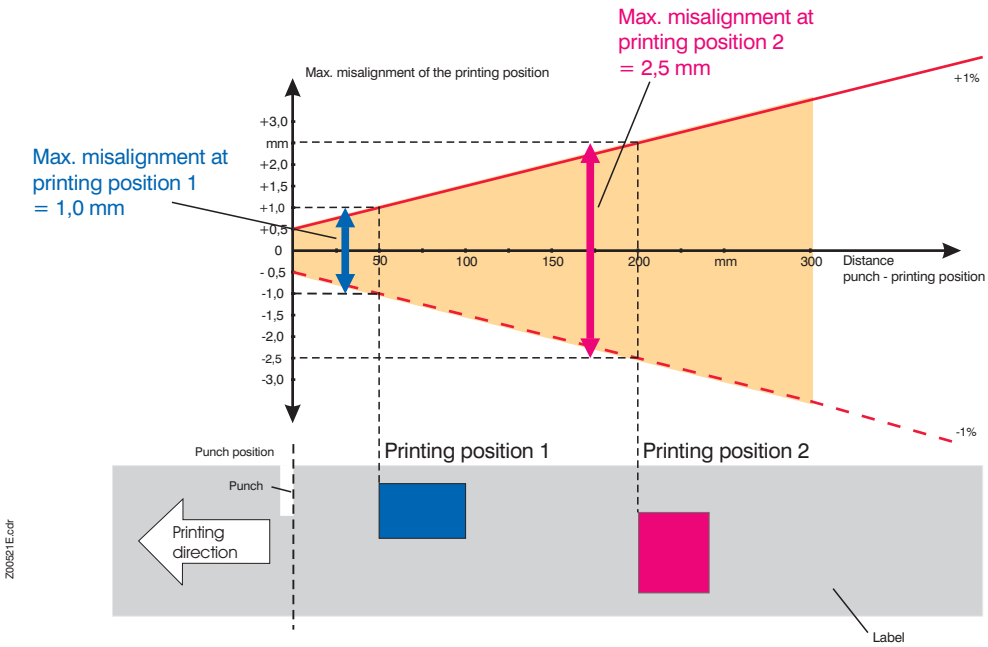


Fig. 1 Impression accuracy depends on the printing position.

Automatic ribbon Beginning at 10 mm print-free zone

economy

Label width 25.4 to max. 254 mm (depending on printer type)

Label length 5 mm to max. printing length

The maximum printing length depends on the following points:

- *Firmware* intalled to the printer (standard or extended, furthermore of the version of the respective firmware)
- Use of *bar code cards*
- Use of *image cards*

Depending on the combination of firmware, bar code card and image card results a different maximum print length.

Printer	Maximum printing length with firmware:				
	Standard (1H..)	Extended (1X..)	Extended + 1 x 1 MB S-RAM	Extended + 1 x 2 MB S-RAM	Extended + 2 x 2 MB S-RAM
TTX 450/ S45 /Puma	356 mm (383 mm*)	245 mm	339 mm	679 mm	1359 mm
TTX 650/ S65/ Lion/ TTX 674/ TTX 675	301 mm (324 mm*)	245 mm	339 mm	679 mm	1359 mm
TTX 950/ S95/ Tiger	245 mm (263 mm*)	245 mm	339 mm	679 mm	1359 mm
TTX 1050/ S105/ Tiger XXL	---	123 mm	169 mm	339 mm	679 mm

*Tab. 2 The max. printing length can be extended by aid of S-RAM cards; assuming that the special "extended firmware" (code 1X..) is installed. This firmware takes more memory space than the standard firmware, that´s why the max. printing length with extended firmware and without plugged-in S-RAM card is even lower than with standard firmware. *) with spooler set to 8 KB (standard: 65 KB)*

Printer	Max. printing length with standard firmware (1H..)		Max. printing length with extended firmware (1X..)	
	Without bar code card	With bar code card	Without bar code card	With bar code card
TTX 450/ S45 /Puma	356 mm	274 mm	245 mm	197 mm
TTX 650/ S65/ Lion/ TTX 674/ TTX 675	301 mm	242 mm	245 mm	197 mm
TTX 950/ S95/ Tiger	245 mm	197 mm	245 mm	197 mm
TTX 1050/ S105/ Tiger XXL	---	151 mm	123 mm	99 mm

Tab. 3 The bar codes are loaded to the printer memory, as soon as the printer is switched on. Because those bar codes take some memory space, the resuming print length is shorter than without bar code card.

Be aware, that the max. printing length may vary from one firmware version to the next. Adding features to the printer means often taking away some millimeters of printing length from the image buffer!

- For detailed information on the different firmware versions refer to the service manual, topic section "Firmware", "Firmware Versions".
- For details about applying plug-in cards refer to the cards manual.

Output mode

1:1 and 100 % printable, either with or without cut.
Non-printable area:
1 mm from the front label edge (1st edge in feed direction) and
1 mm from the left band border (right border in feed direction).

Gap detection

Self-initialising light transmission sensor, optional reflex sensor (at the bottom side of the material).

Correction of gap displacement in feed direction is possible by modifying the gap offset (parameter *PRTP > PUNO*),

	Light transmission sensor	Reflex sensor
Setting range	2-17 mm	13-26 mm
Punch length (in feed direction)	0.8-14 mm	4 mm (recommended)
Punch width (across the web)	min. 4 mm	12 mm (recommended)

Tab. 4 Punch dimensions and setting ranges.

Cutter

Optional high-performance, low-noise cutter with double-cut function from 1 to 5 mm

Interpreter

Easy Plug, Line Printer, Hex Dump

Character sets

17 fonts including OCR-A and OCR-B, 2 scalable fonts

Character modification

Scaling in X/Y direction up to factor 8,
Rotation 0, 90, 180, 270 degrees

Bar codes

EAN 8, EAN 13 with Add-On 2 and 5, UPC A, UPC E, Code 39, Code 39 Ratio 3:1 and Ratio 2,5:1, ITF, Codabar, Code 128, Code 128 Pharmacy, Code 2/5, Code 2/5 Interleaved, Code 2/5 5, Code 2/5 Interleaved Ratio 1:3, Code 2/5 Matrix Ratio 1:2,5; Code 2/5 Matrix Ratio1:3; MSI, EAN 128; Postcode (Guide- and Identity Code), Code 128 UPS

All bar codes scalable in 16 widths and the height.

Label material specifications

Material supply
Roll with max. outer ∅ 210 mm,
inner ∅ 1,5“ (38 mm), 3“ (76 mm), 4“ (102 mm)

Material width

TTX 450/S45/Puma	25.4 to 113 mm
TTX 650/S65/Lion	25.4 to 154 mm
TTX 674/Puma plus	25.4 to 154 mm
TTX 675/Lion plus	25.4 to 154 mm
TTX 950/S95/Tiger	30.2 to 185 mm
TTX 1050/S105/XXL	100 to 254 mm

Material type
Self-adhesive, card and synthetic materials up to the max material weigth (see below), suitable for printing in thermal direct process and thermal transfer process.
Use of fan-folded material possible.

Material weight

max. weight:	TTX 1050/S105/XXL	160 g/m^2
	all other printers	240 g/m^2
min. weight:	80 g/m^2	

Roll weigth

TTX 450/S45/Puma	max. 4250 g
TTX 650/S65/Lion	max. 4250 g
TTX 674/Puma plus	max. 4250 g
TTX 675/Lion plus	max. 4250 g
TTX 950/S95/Tiger	max. 7200 g
TTX 1050/S105/Tiger XXL	max. 7200 g

Ribbon specifications

Ribbon roll
Max. outer ∅ 90 mm, inner ∅ 1" (25,4 mm)

Winding direction
64-xx: ink inside or outside
64-xx Dispenser: ink inside

Ribbon width

TTX 450/S45/Puma	30 to 110 mm
TTX 650/S65/Lion	30 to 132 mm
TTX 674/Puma plus	30 to 132 mm
TTX 675/Lion plus	30 to 132 mm
TTX 950/S95/Tiger	30 to 164 mm
TTX 1050/S105/Tiger XXL	30 to 217 mm

Operation features

Operation
3-key control panel with 4-figure display

Settings
Definition of parameters using menu or Easy Plug commands

Test copies
Copies for parameter settings, adding logo and font, line and barcode library

Test functions
Print tests with cut, test routines for memory and sensors, interface test

Error reports
Display of error reports on the display,
continuation of print jobs without label loss.

Connections, device data

Mains voltage	115 V, 230 V and 240 V, ±10 %, changeable
Mains frequency	50/60 Hz
Power consumption	approx. 336 VA, approx. 450 VA for TTX1050/S105/XXL
Current consumption	approx. 3 A (at 115 V) and 1.5 A at 230/240 V
Ambient conditions	Operating temperature: +5 to +35 °C Storage temperature: -20 to +70 °C Humidity: 45 to 75 %, non-condensing
Interfaces	Standard: serial and parallel interfaces (Centronics), optional RS485 in exchange for RS 232, bi-directional mode for all interfaces possible
Memory	2 slots for PCMCIA-cards with max. 2 MB each, 1 MB dynamic RAM

Test certificates

TÜV GS TÜV GS test certificate: Tested safety (according to EN 60950:97)

CE Conformity

CE

The devices conform to CE-requirements and are marked with the CE label. The manufacturer declares that the device conforms with the relevant European guidelines.

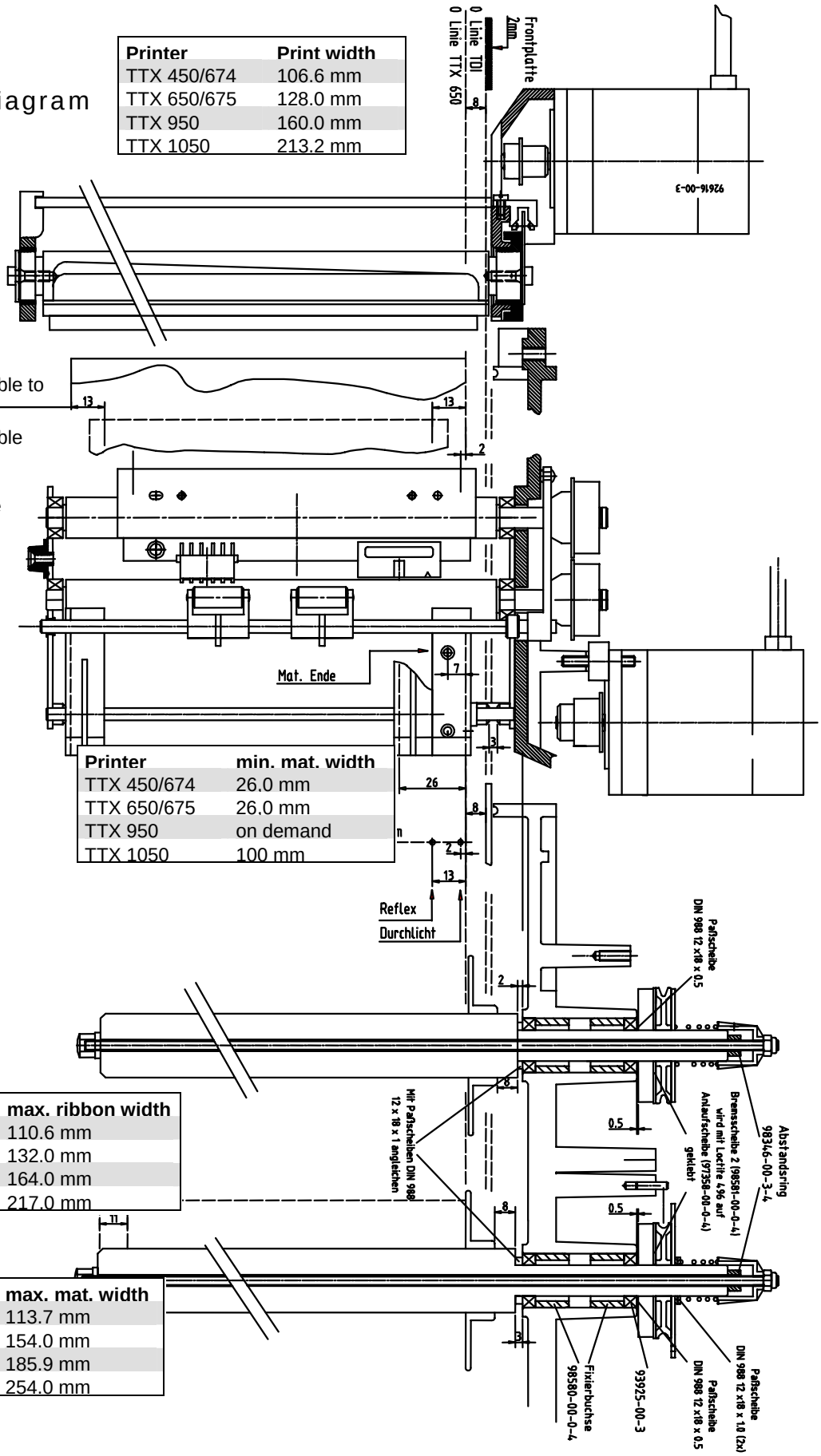
EMC The EMC test was made according to the following norms:

EN 55022:98
EN 55024:98
EN 61000-3-2:95
EN 61000-3-3:95
EN 61000-6-2:99

Appendix

Through-run diagram

Printer	Print width
TTX 450/674	106.6 mm
TTX 650/675	128.0 mm
TTX 950	160.0 mm
TTX 1050	213.2 mm



Printer	min. mat. width
TTX 450/674	26.0 mm
TTX 650/675	26.0 mm
TTX 950	on demand
TTX 1050	100 mm

Printer	max. ribbon width
TTX 450	110.6 mm
TTX 650/67x	132.0 mm
TTX 950	164.0 mm
TTX 1050	217.0 mm

Printer	max. mat. width
TTX 450	113.7 mm
TTX 650/67x	154.0 mm
TTX 950	185.9 mm
TTX 1050	254.0 mm

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