Beyond Expectations

CL4NX & CL6NX

NX Series

NEXT GENERATION 4” & 6” INDUSTRIAL THERMAL PRINTERS

www.satoeurope.com
NX Series
Beyond Expectations

Run All-in-One functions anywhere at anytime...

The NX Series represents SATO’s next generation of thermal printers with advanced support for barcode symbologies, character sets and RFID encoding. A product of SATO’s global R&D network the NX Series incorporates value-added features in a world-class design to deliver a printing solution that goes beyond expectations.

Industrial Durability

- Metal casing including front panel and side covers protects against any industrial environment.
- Die-cast Aluminium frame, print and ribbon mechanism provide solid stability to ensure print quality and printer durability.
- 1 year global warranty for printer including installed options. Long lasting 30 kilometre guaranteed print head and platen roller.

Functional Form

- Bi-fold cover allows compact design and reduces workspace requirement.
- Supports internal, external, clockwise and counter-clockwise rotational media types. Adjustable label holder for increased internal roll capacity.
- Field installable options, snap in print head, and tool-less platen replacement minimise downtime.
- External media inlets, mounting fixtures, and cable hook.

Model Lineup

Cutter

- Front mount guillotine cutter unit
- Single item or batch print job cut settings
- Long lasting blade life

Standard

- Tear-off bar for manual media separation
- Label holder adjustable to support up to 10" OD media rolls
- External media slots for rear or bottom feed applications

Dispenser

- Dispenser unit including peel bar for liner separation
- Additional internal liner take-up for active peel applications
The NX Series represents SATO’s next generation of thermal printers with advanced support for barcode symbologies, character sets and RFID encoding. A product of SATO’s global R&D network the NX Series incorporates value-added features in a world-class design to deliver a printing solution that goes beyond expectations.

### Intuitive Operation
- LED indicator and colour display alert operator to printer status. Guidance videos assist in error resolution and printer maintenance.
- Advanced user Interface for full operational control of print, application, I/F, and system settings via front panel display.
- Customisable GUI content and security enabled menu access let administrators personalise the operator experience.
- Best in class 60° print head opening, tension damper, and coreless ribbon system facilitate easy media setup.
- Coloured operator touch points ensure safe operation and interactions with movable parts.

### Accurate and Efficient Performance
- Head check function performs print head status analysis before each print to assure printing accuracy.
- High speed data processing with 10 ips print speed equals faster first label out and print job throughput.
- 10 preset darkness levels with finite adjustment between presets for optimal print performance setting.
- UHF and HF RFID options support a wide variety of tags and include adjustable antenna system for optimal inlay encoding.

### Dynamic Integration
- Serial, parallel, LAN and USB combo interface covers all legacy and modern systems requirements. Optional WLAN available.
- S2PL, SIPL, SDPL, STCL command emulations enable direct replacement of printers in legacy applications.
- Auto-switching interface setting and media auto-calibration to adjust sensor levels for faster setup time between print jobs.
- 30+ display languages, 40+ print character sets, and 15 SATO resident fonts, additional user downloadable space provide universal format coverage.
- All major agency approvals permit global deployment for large enterprises or future expansion potential for growing startups.

### Sustainable Innovation
- Coreless ribbon uptake simplifies the loading process. Thermal ribbon is now directly attached to ribbon boss and removed via one-touch release button.
- Superior energy efficiency certified by Energy Star the leader in product accreditation. Decrease energy costs without any sacrifice to functionality.
- Optional linerless kit eliminates waste associated with traditional label production. No liner equals either more labels per roll for increased productivity or smaller roll sizes for decreased logistic and storage expenses.

### Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linerless *</td>
<td>Puretech™ Linerless modified cutter unit with on demand sensor, Anti-adhesive Puretech™ platen roller, media path and sensor cover, Pureline™ visible wear indicator</td>
</tr>
<tr>
<td>Print Head</td>
<td>203, 305, 609* dpi resolutions, User exchangeable snap in design, Resolution auto-detect</td>
</tr>
<tr>
<td>Wireless LAN</td>
<td>802.11 a/b/g/n, 2.4/5GHz dual-band switching, Wi-Fi Direct and CCX certified</td>
</tr>
<tr>
<td>Real Time Clock</td>
<td>Time and date tracking RTC, Enable timestamp labelling</td>
</tr>
<tr>
<td>RFID Encoder *</td>
<td>UHF ISO/IEC 18000-6 or HF ISO/IEC 15693 modules, Worldwide frequency range setting, Short pitch encoding support</td>
</tr>
</tbody>
</table>

* Only available on CL4NX
TECHNICAL INFORMATION

PRINTING SPECIFICATION

CL4NX
- Direct Thermal / Thermal Transfer
- Print Resolution: 8 dots/mm 203 dpi, 12 dots/mm 305 dpi, 24 dots/mm 609 dpi
- Max. Print Speed: 10 ips 254 mm/sec, 8 ips 203 mm/sec, 6 ips 152 mm/sec, 10 ips 254 mm/sec, 8 ips 203 mm/sec
- Max. Print Area: 104mm (4.1")
- Length, mm (inch): 2500mm (98.43")
- Processor: Dual CPU & Dual OS; CPU 1: 2GB ROM, 256MB RAM for Linux OS, CPU 2: 4MB RAM, 64 MB RAM for ITRON OS
- Printer Memory: 2GB ROM, 256MB RAM

CL6NX
- Direct Thermal / Thermal Transfer
- Print Resolution: 8 dots/mm 203 dpi, 12 dots/mm 305 dpi, 24 dots/mm 609 dpi
- Max. Print Speed: 10 ips 254 mm/sec, 8 ips 203 mm/sec, 6 ips 152 mm/sec, 10 ips 254 mm/sec, 8 ips 203 mm/sec
- Max. Print Area: 104mm (4.1")
- Length, mm (inch): 2500mm (98.43")
- Processor: Dual CPU & Dual OS; CPU 1: 2GB ROM, 256MB RAM for Linux OS, CPU 2: 4MB RAM, 64 MB RAM for ITRON OS
- Printer Memory: 2GB ROM, 256MB RAM

CONSUMABLES SPECIFICATION

- (Recommended to use printer supplies manufactured or certified by SATO)
- Sensor Type: I-Mark Sensor (Reflective), Label Gap Sensor (Transmissive)
- Media Type: Roll or fan-fold die cut labels, Plain paper face stock, Synthetics and Continuous stock
- Media Thickness: 0.06 – 0.26 mm (0.002” – 0.01”)
- Label Shape: Diameter: Minimum 220mm (8.6”) on 76mm (3”) internal core diameter; Core diameter: Ø 76mm (3.0”), Ø 101mm (4.0”)
- Wind Direction: Face In / Face Out. No Setting Change Required
- Label Size: Continuous Width: 22 – 128mm 0.87” – 5.0” Length: 6-2497mm 0.24” – 98.43”
- Tear Off: Width: 22 – 128mm 0.87” – 5.0”, Length: 17-2497mm 0.67” – 98.43”
- Cutter: Width: 22 – 128mm 0.87” – 5.0”, Length: 17-2497mm 0.67” – 98.43”
- Dispenser: Width: 22 – 128mm 0.87” – 5.0”, Length: 27-2497mm 1.06” – 101.56”
- Linerless: Width: 60 – 118mm 2.36” – 4.6”, Length: 60 – 118mm 2.36” – 4.6”, 30 – 120mm 1.2” – 4.72”
- Ribbon: Size: Max. Length: 600mm (19.6”), Width: 22-128mm 0.87” to 5.0”, As CL4NX
- Other: Core diameter: Ø 25.4mm (1”), Wind direction: Face In / Face Out, No Setting Change Required

FONTS / SYMBOLOGIES

- TTF Fonts: CG Sleek, CG Stream, Sato Gamma (Bold, Italic, Bold Italic), Sato Vica (Bold, Italic, Bold Italic), Sato Folio Bold, Sato Vica
- User Downloadable Fonts: User Guidance Videos on LCD with space for customized videos, Multi Language support LCD message (30 Languages), 104mm (4.1”), 167.5mm (6.5”)
- Other Fonts: Sato Symbol Set, Sato Wingbats, Sato Sans (Bold), Sato Alpha Bold Condensed, Sato Beta Bold Condensed, Sato Beta Bold Italic, Helvetica, Universal, Universal Condensed Bold, AR Hebe Sans, AR Silver erd, AR Hebe Sans Farsi, Other Asian True Type Fonts, Optionnal Downloaded TrueType fonts, scalable from 8 to 72 points
- 2D Symbologies: PDF417, Micro PDF, MAXI Code, GS1 Data Matrix, QR Code, Micro QR Code and Composite Symbologies
- Printing Direction: Character data rotation: 0º, 90º, 180º, 270º
- Encoder: Major Latin and Pan-European Code Pages (WGL4), GB18030 (simplified), KSX1001 (Korean), BIG5 (traditional), JS, SHIFT-JIS, UTF-8 and UTF-16BE also supported
- Barcode: Code 39, Code 93, Code 128, CODABAR (NW7), EAN8/13, GS1-DatabarTM, GS1-128(UCC/EAN128), Interleaved 2/5, Industrial 2/5, JAN/13, Matrix 2/5, MS1, Bookland, PostnetTM, UPC-A/E
- 2D Symbologies: PDF417, Micro PDF, MAXI Code, GS1 Data Matrix, QR Code, Micro QR Code and Composite Symbologies
- Print Direction: Character data rotation: 0º, 90º, 180º, 270º, Bar code rotation: 0º, 90º, 180º, 270º

INTERFACT CHARACTRISTICS AND INTEGRATION

- Interfaces: RS232, RS232C Standard (XON/XOFF, RTS/CTS)
- IEEE1284
- USB: USB2.0 type-B, USB2.0 type-A USB Host(2 ports)
- LAN: Ethernet 10/100 Mbps / DHCP(ipv4 / ipv6), TCP/IP
- Bluetooth: Version 3.0 + EDR Class 2
- EXT IO: Amphenol D-Sub14Pin Female
- Optional Interface: Wireless LAN (WiFi and CCX Certified), Widi Direct, IEEE 802.11a/b/g/n, Dual band (2.4GHz, 5GHz)
- Remote Maintenance: SNMP Ver.3, HTTPS
- Supported printer protocols: Standard: SBPL (SATO Barcode Printer Language) Emulation Language: Auto detect - SZPL, SDPL, SIPL or STCL

OPERATING CHARACTERISTICS

- Power Requirements: AC100V~AC240V±10%, 50/60 Hz, Auto-ranging Power Supply, Energy Star – Compliant
- Environment: Operating 0 – 40 ºC / 30 – 90 % RH (without condensation)
- Operating Linerless: 5 – 35 ºC / 30 – 75 % RH (without condensation)
- Storage: -20 – 60 ºC / 30 – 90 % RH (without condensation)
- Dimensions: CL4NX: 271mm (10.6”) x 457mm (17.9”) x 321mm (12.6”), CL6NX: 338mm (13.3”) x 457mm (17”) x 321mm (12.6”)
- Weight: CL4NX: 15Kg (33 lbs), CL6NX: 20Kg (42 lbs)
- Display Panel: TFT Full Color LCD, 3.5” (320x320)

MISCELLANEOUS

- Standards & Agency Approvals: EC 60950, CE Marking, EN 60950-1, EN 55022 Class A, EN 55024, A / B, R&TTE, NEMssO-GS, cETLus, UL60950-1/CSA C22.2 No.60950-1, FCC 15 (SUB B, C), ICES-003, NAB-013, BS C-Tick, FCC Class A, C-Tick, RCM, CIIC, ICIC, SIRIM, IDA, PTQC, NBTC
- Functions – Useful features: User Guidance Videos on LCD with space for customized videos, Multi Language support LCD message (30 Languages), Energy Saving, Large Status LED, Multiple Interfaces-Auto-switching, USB Memory for data copy, Status return, Alarm Sound
- Functions – Self Diagnosis Checking: Thermal head check, Paper end detection, Ribbon end detection, Test print, Head Lift detection

OPTIONS

- Accessories: CL4NX, Cutter, Linerless Cutter Kit, Dispenser with Internal Backing Paper Revinder, Real-Time Clock, UHF RFID, Wireless LAN kit
- CL6NX, Cutter, Simple Dispenser, Dispenser with Internal Backing Paper Revinder, Real-Time Clock, Wireless LAN kit

RFID SPECIFICATION

- Standard: ISO18000-6  Type C
- Frequency: 868 – 920MHz
- Protocols: EPC Gen 2 Class 1, NPX, Impinj, Alien
- RFID Features: Fully integrated UHF RFID Reader / Encoder Module. Void marking of damaged or unreadable transponders, RFID data verification after programming. Multiple RFID power settings allow users to use individual transponder sizes
- Gen2 Memory: Expanded EPC (496bit), User Memory (512bit), TID (96bit), Access Password, Kill password, Lock

SATO makes no guarantee that the above features are available in all models, and specifications are liable to change, without notice, before EU 04.05.