QU-TK-F3 Series RFID/IC Card Dispenser Specification

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Overview

QU-TK-F3 Series Card Dispenser

Introduction

QU-TK-F3 Series RFID/IC Card Dispenser machine is a high-performance card issuing device that features motorized dispensing of paper/PVC cards driven by computer instructions. It's targeting on various self-service terminals in car parking management system, highway entrance tolling system, self-service payment machines, card dispensing kiosks, bank card management, utility charging systems, etc.

General Features:

- Unique rubbing wheel design for adaptability to embossed cards;
- Easy knob setting for dispensing cards of various thickness;
- Short profile and versatile in functions, optional IC/RFID Read/Write Module and Recycling Bin;
- Simple Recycling bin design for large quantity recycling needs;
- Detectors and sensors in card channel, stacker and recycling bin for accurate status indication (low capacity, card exhaustion, recycling bin overload, card positions etc.);
- Dedicated card conveying wheel design for preventing dust accumulation;
- High intensive and wear-resistant plastic card channel for avoiding radio shielding;
- Multilevel protection for sensors, good shielding of ambient light;
- Optional PC/SC compliant RFID/IC card Read/Write Module

Model Options:

QU-TK-F3-130 with both Contactless &Contact IC Reader; RS232 Only;
QU-TK-F3-110 with Contact IC Reader, RS232 Only;
QU-TK-F3-120 with contactless IC reader, RS232 Only;
QU-TK-F3-113 with PC/SC Contact Card Reader; RS232+USB;
QU-TK-F3-123 with PC/SC Contactless Card Reader; RS232+USB;
QU-TK-F3-133 with PC/SC Contact/Contactless Card Reader; RS232+USB;

Technical Specification

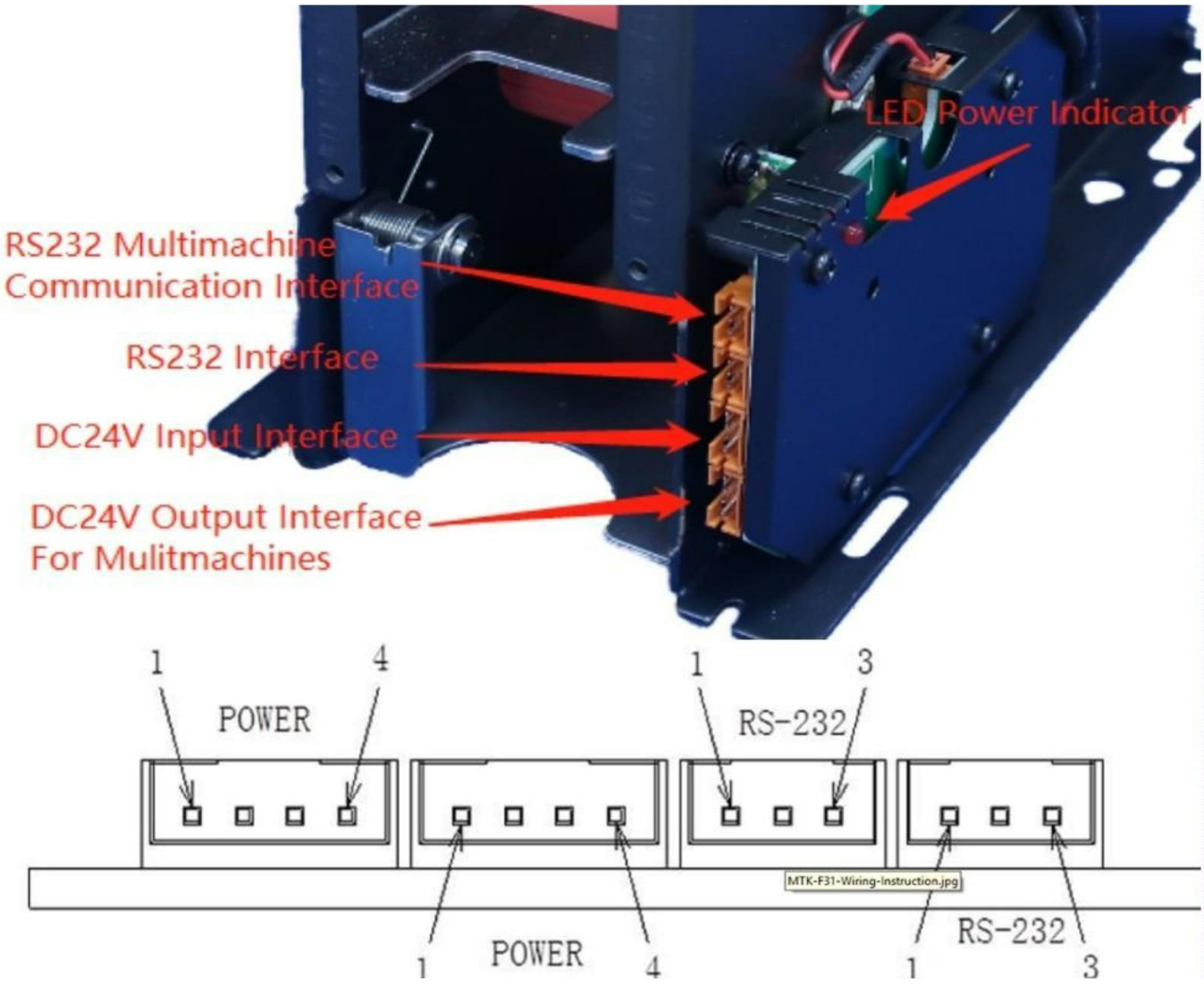
Parameters - QU-TK-F3 Smart Card Dispenser	
Items	**Description**
Card Thickness	0.2mm~1.2mm(Ex-work Default: 0.8mm)
Card Size	Length*Width: 85.47-85.90x53.92-54.18mm (ISO 7810/CR-80/CR-79, ID-1)
Card Hopper Capacity	170pcs(0.76mm thickness non-embossed); Extensible to ~300/500pcs with stacked hopper(s);
Reject Bin Capacity	Reject Bin for 25 pcs cards(0.76mm thickness)
Remaining Card Check	0~50pcs Low card level warning; Empty card hopper Error;
Smart Card Reader	**Integrated Contactless and/or Contact Reader &Optional SAM slot** **Contactless:** ISO14443 type A&B, ISO15693; Mifare S50/S70/UL/Plus/Desfire; **Contact IC:** ISO7816-1,2,3,4; T=0&1 CPU Cards; SLE4442/4428, AT42Cxxx series;
Dispensing Speed	~1.0 Sec/Card(Non-Stop for card reading)
Interface	RS-232; RS-232+USB2.0(For PC/SC Reader Models)
Power Supply	DC24V±5%, 2.0A; Curent: Idle~200mA, Peak~1500mA;
Life Cycle	500,000 times dispensing cycles; 500,000 times IC contact reading;
Environment Conditions	* Temperature &Humidity Operation: 0~50℃/0~90%RH Storage: -10~60℃/0~90%RH
Weight	1.6Kg
Dimension	234(L) x99.0(W) x 220.0mm(H)

Supported Card Types:

- **IC Card:** Compliant to ISO7816 Standard（e.g. AT24C01、24C02、……、24C256； SLE4447、SLE4428；CPU T=0/T=1）
- **RF Card:** Compliant to ISO14443-3(TYPE A：S50, S70, UL etc.), ISO14443-4（TYPE A CPU： mifare plus， mifare defire etc.), （TYPE B CPU）

Operation Instruction

1. Function Keys &Interface Schematic



1. 3-Write RS-232 Interface Description:

	Signal	Pin Definition
1	RXD	Received Data
2	TXD	Transmit Data
3	SGN	Ground

2. DC Power Interface Description:

No.	Signal	Pin Definition
1	24V(+)	DC+24V Input
2	GND(-)	Ground
3	GND(-)	Ground
4	BPS(24V+)	Back Up Power Supply

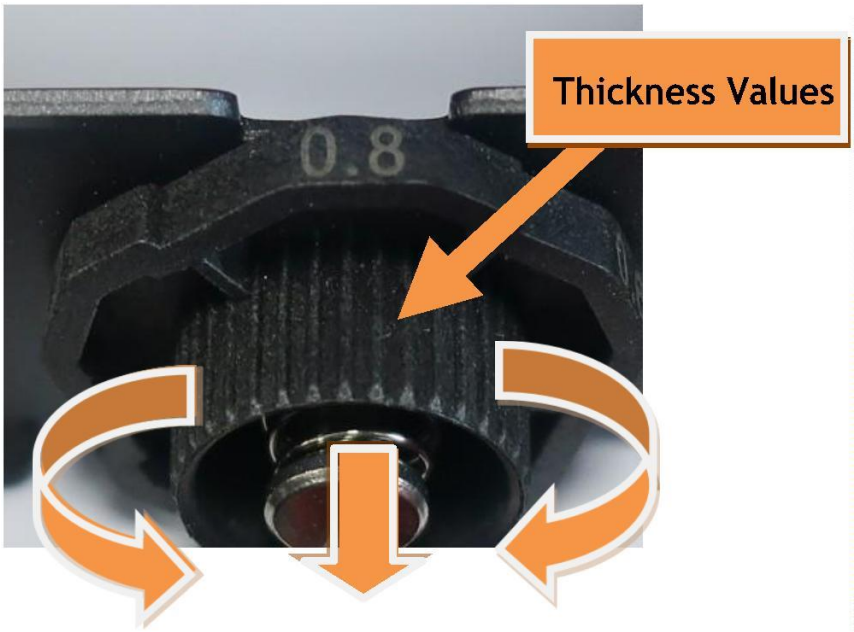
Operating Steps

1) Plug in the Power port and RS232 3-Wire Port to the dispenser interface as shown above **(Warning: Reverse Connection is Forbidden);**

2) Wiring the power line to DC24V PSU, then the RS232 to Host COM Port;

3) Open the demo program and select the right COM Port from the Drop list, QU-TK-F3 support Baud Rate 1200 to 115200BPS, and default factory setting is 9600BPS.

4) Thickness Setting is shown below:



1) Pull out the tuning knob for about 1.5mm;
2) While holding the knob, turn clockwise or inversely to the specified thickness value, and release the knob;
3) After the knob returns, slightly turn the knob to and fro to confirm that the knob has been locked to position;
4) Done

Maintenance

Maintenance Period:

1) For indoor use, regular maintenance is required after every 50,000 dispensing cycles or every 5 months;
2) For outdoor use, maintenance should be scheduled according to own conditions. Generally, we recommend a 3-month period;

Maintenance Procedures:

1) Clear out all cards from stacker. While pressing the **Fault Reset Button**, wipe off dust and foreign objects on rubber wheels, IC contact points etc. with clean and soft cloth, alcohol is allowed if necessary;
2) Wipe off dust and objects on sensors with a brush or rubber air pump blower;
3) Check the belt status (tension and weariness), and make adjustment or replacement accordingly;
4) **Thickness Accuracy Inspection:** Manually check whether a double thickness card can go through the channel from the stacker. If yes, thickness resetting is needed by tuning the thickness adjustment knob;

Structure and Dimension Drawing

1) Side View

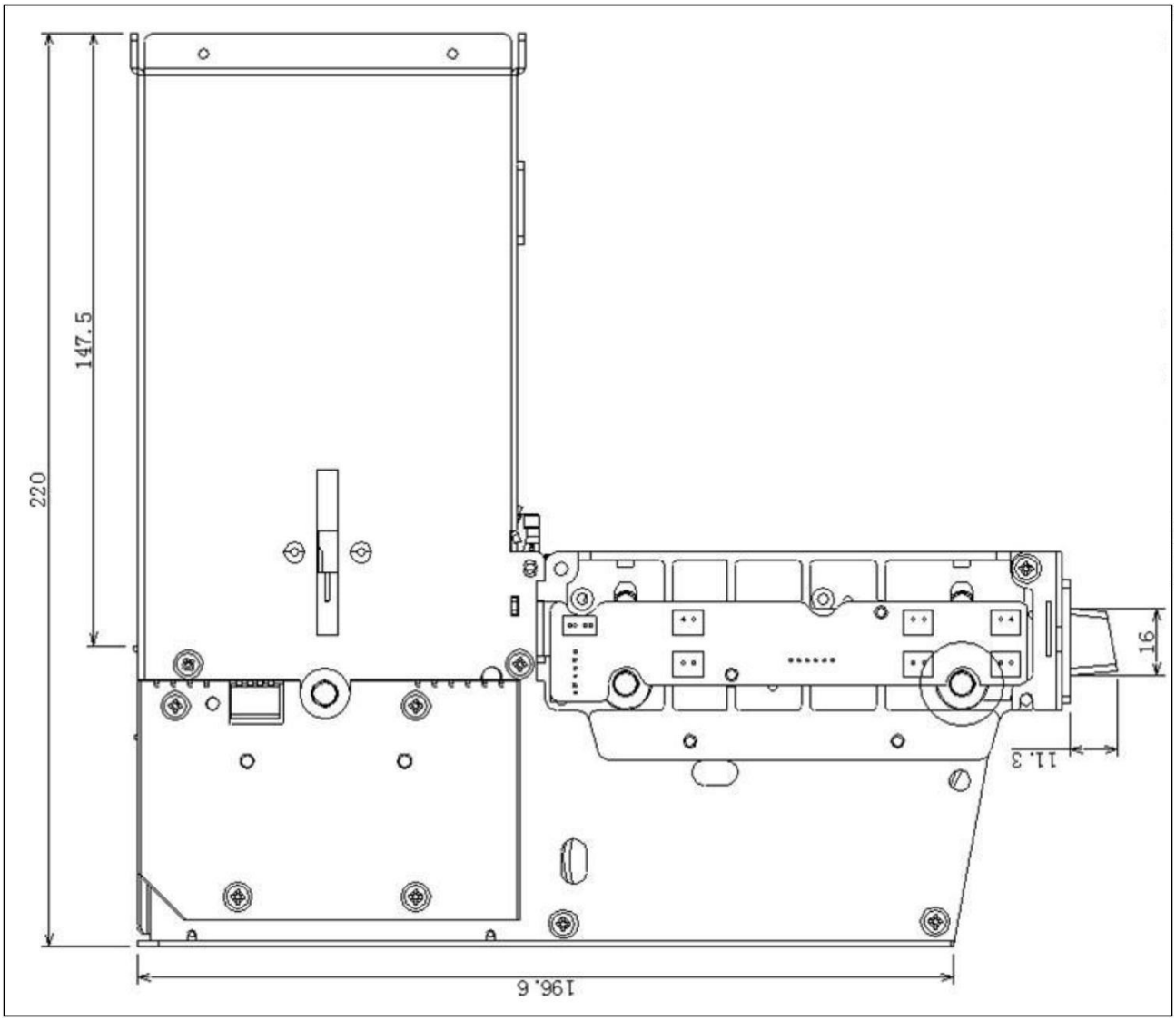


Chart 1 Side View

2) Front View

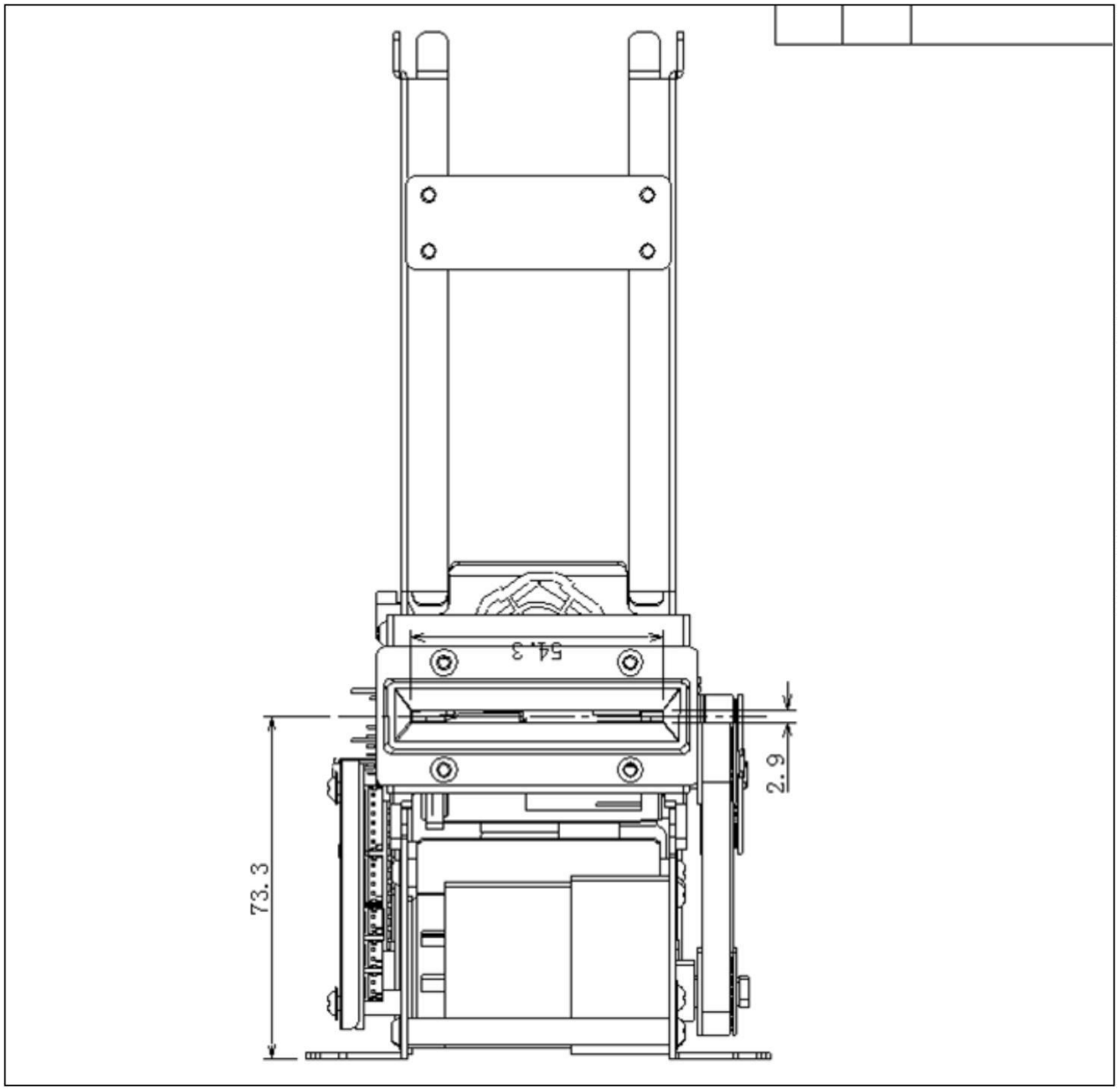


Chart 2 Front View

3) Top View

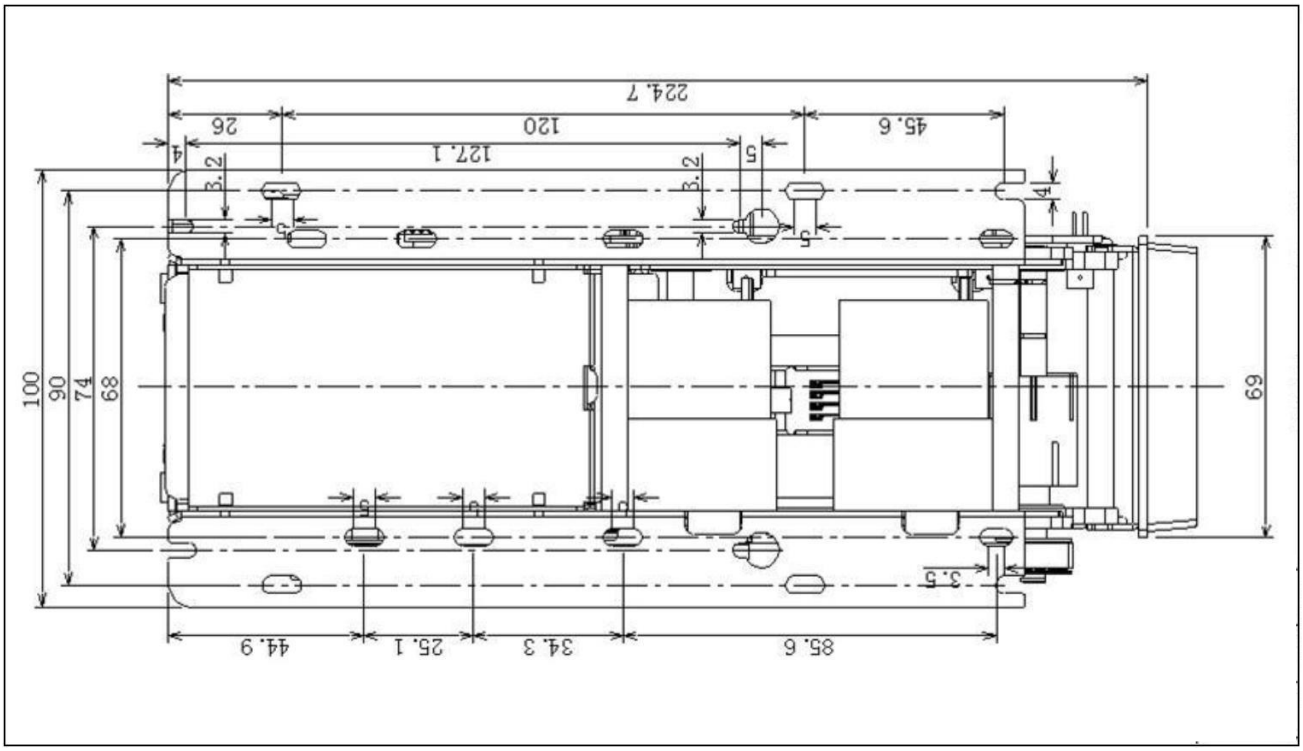


Chart 3 Top View

4) 3D Profile

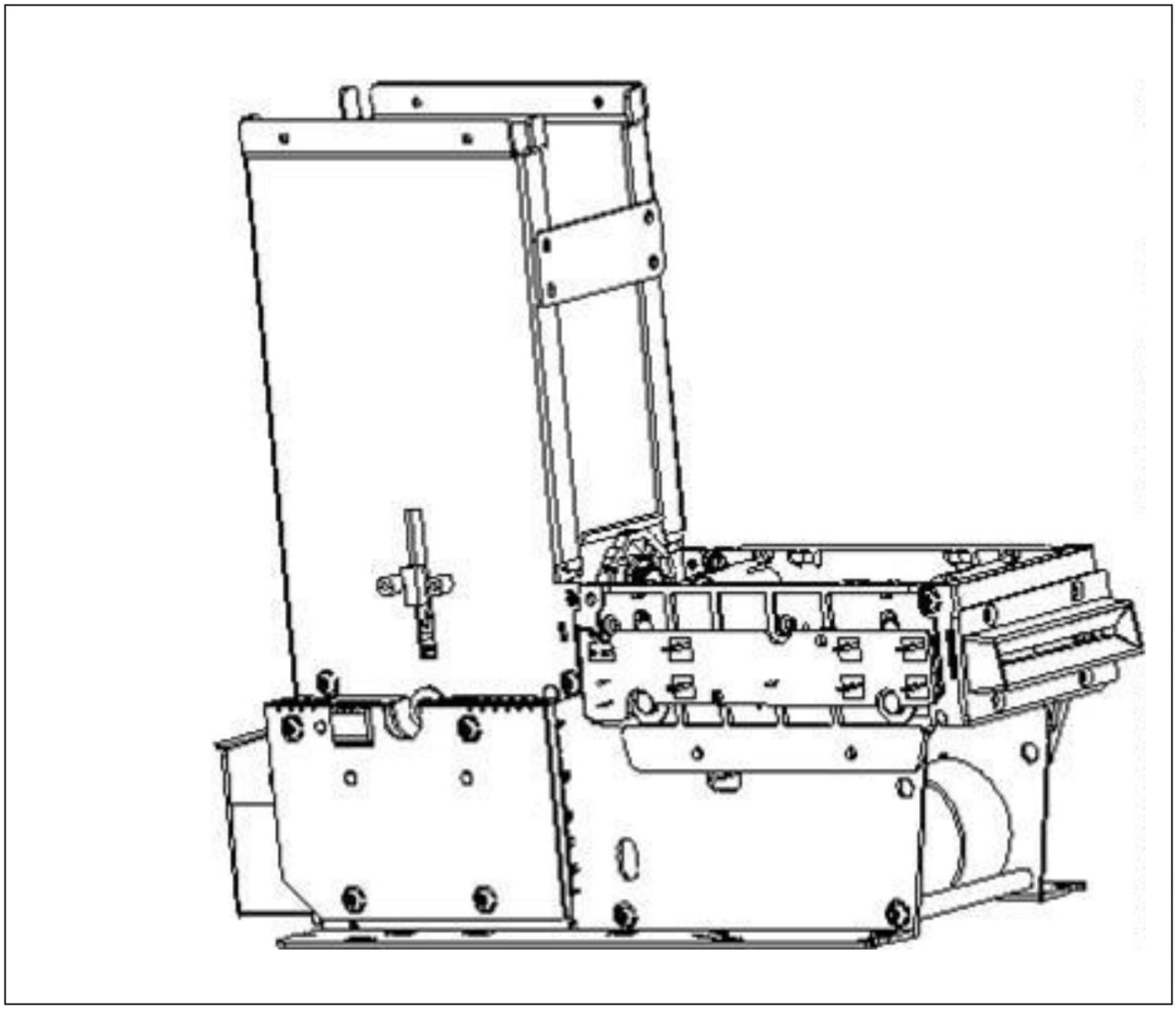


Chart 4 3D Profile

Notes for Using:

1. **Always connect with 24VDC of minimum 1.5A; Over/Low voltage may cause burning-out of electrical components or motors**
2. **The machine works with most of COM-USB converters, but not all of them. So, if any abnormalities when using a converter, please switch to a Real COM to confirm.**

Warranties & Exemptions

1) One Year warranty is provided by our company from the date of purchase (Void for vandalism, sabotage or improper operation);
2) For the following cases, necessary charges are needed for repair or replacement：
    1) Repairable damaged caused during transportation or operation;
    2) Products or Parts is out of free warranty period;
    3) Damage caused by not following instructions or incorrect operations;
    4) Malfunction caused by Disassembly, Repair or Modification without permission of factory;