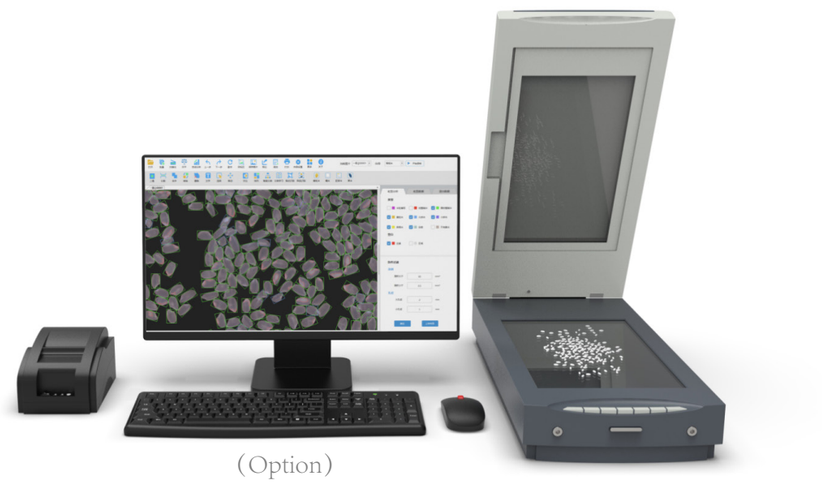

(Option)

TPMZ-A

RICE QUALITY DETECTOR

Introduction

The rice appearance quality tester is a professional instrument that automatically detects the appearance quality indicators of rice and rice by obtaining rice images through a scanner. It can automatically analyze and evaluate various types of rice (japonica rice, indica rice, indica glutinous rice, japonica glutinous rice, black rice, yellow rice, embryo rice, etc.).

Measurement Parameters

The total number of rice grains, thousand grain weight, grain type (length, width, aspect ratio, circumference, area, and roundness), national standard polished rice number, pure polished rice number, polished rice rate, broken rice grain number, chalky rice grain number, chalky grain rate, chalky area, chalkiness degree, transparency, imperfect grain number, yellow rice grain rate, rice color yellowing index and rice whiteness determination, impurity amount, different varieties of grains, imperfect grains (immature grains, diseased grains, insect eroded grains, etc.), as well as the number of glutinous rice grains in glutinous rice, glutinous rice rate, rice cracking rate, brown rice embryo rate, etc.

Features

• National testing standards

Corresponding to national standards such as GB/T1350 Rice, GB/T17891 High quality Rice or GB1354 Rice, and the new standard of the Ministry of Agriculture [Rice] NY/T2334-2013.

• Single grain rice analysis

The rice appearance quality detector can automatically measure parameters such as grain size and chalkiness of each grain of rice, and automatically process and output results in large quantities.

• Intelligent segmentation of sticky rice grains

The software can automatically recognize and segment sticky rice grains.

• Rice grain role conversion

Click on the corresponding sample grain to convert the sample into “whole broken

rice", "cracked grain", "yellow rice", "embryo rice", "glutinous rice" and "black rice".

• Marking rice for easy screening

Text can be added to the rice image as a marker for easy screening of rice of interest.

• Personalized display parameters for easy visual distinction

Different colored boxes can be set for the analyzed parameters to visually display and distinguish various rice qualities and chalky areas such as broken rice, polished rice, abnormal rice, etc.

• Regional selection analysis to avoid interference from other rice varieties

The target area can be manually defined, and only the grain type, polished rice rate, chalkiness degree, and chalkiness grain rate of the rice within the area can be analyzed.

• Manual removal of impurities

Abnormal rice can be manually removed, and the data can be automatically updated for more accurate inspection.

• Data saving and output

It can save analysis data, arrange distribution charts, comparison charts, and export Excel tables.

• Support cloud platform

analytical data can be saved to the cloud for viewing anytime and anywhere.

• Software security encryption

The software uses encryption dongles and dynamic QR codes to encrypt data, making it more secure.

• Printing function

Equipped with a thermal printer as standard, it can print rice data for easy viewing.

Technical Parameter

Scanner	Optical resolution of 4800 × 9600dpi, transparent scanning area of 30 cm × 20 cm, minimum pixel size of 0.0053mm × 0.0026mm, and the weight of rice can reach 30g in one scan
Scanner dimensions	576 mm (L) × 297 mm (W) × 118 mm (H)
Scanner weight	6.4 kg
Scanner power	38 W (15V, 2.5A)
Operating temperature	10 ℃ ~35 ℃
Operating humidity	20%~85% RH
Single test sample size	<3000 pieces, recommended sample size is about 12g
Measurement error of length and width	⩽ ± 0.05mm
Precision rice rate error	⩽ ± 1.0%
Chalkiness	⩽ ± 1.0%
Yellow grain rice repeatability error	⩽ ± 0.5%