

Features



Multiple function and high accuracy combined
with simple setup procedures for increased testing efficiency

- Lineup of nine models available (500 N, 1 kN, 2 kN, 5 kN, 10 kN, 20 kN, 50 kN, 100 kN, 250 kN) to suit test force requirements.
- The front control panel is designed with displays and switches arranged together for ease of use.
- Simply connect a load cell with automatic calibration and automatic zero resetting functions, eliminating the need for adjustment.
- Supports accuracy of $\pm 1\%$ of indicated value (JIS Class 1) or $\pm 0.5\%$ of indicated value (JIS Class 0.5) in range 1/1 to 1/500 of load cell capacity.
- Three manual speeds for position setting before testing, each freely settable.
- Compact, lightweight design eliminates constraints on installation site.

Specification

Specification name	Specification contents
Maximum test force	250 kN, 100 kN, 50 kN, 10 kN, 5 kN, 2 kN, 1 kN, 500 N, 200 N
Test space	Tensile and Compression testing beneath the movable crosshead. (An optional model is available allowing tensile testing above the movable crosshead.)

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Loading method	Constant-speed strain loading with high-accuracy AC servo motor and backlash-free precision ball screw
Crosshead speed/permissible test force	Within the max. test force over the entire speed range.
Test force range	Choice of ×1 (AUTO) and ×100 if load cell rated output is 3 mV/V; ×1 (AUTO) if load cell rated capacity is 20 N or less. When ×1 (AUTO) is set: test force increase/decrease, full scale display, and automatic switching of decimal point position and display units
Test force measuring accuracy	±1% of indicated value in range 1/1 to 1/500 of load cell capacity for both tensile and compression (A high-accuracy model with ±0.5% of indicated value is available as an option.)
Applicable standard	JIS B 7721 Class 1 or Class 0.5 and ISO7500-1 Class 1 or Class 「0.5」
Crosshead speed accuracy	±0.1 % over entire speed range (Excluding custom and manual speed)
Speed setting method	Preset speed Key operation, 1-step up/down, and [×10] / [×1/10] selection Custom speed Custom setting in 0.1 mm/min increments Manual speed Three speeds (HIGH/MIDDLE/LOW); each speed freely settable
Test mode	Single and cycle (Creep, stress relaxation optional).
Test force/crosshead position display	Test force: 5-digit digital display. Movable crosshead position: 5 1/2-digit digital display ±1 999.99
Crosshead position display accuracy	±0.1 % of indicated value. (±0.01 mm up to ±10 mm)
Cycle count display	4-digit digital display, selection display on position display
Cycle control *5)	Position setting, test force setting, and combined setting possible. With cycle number preset function.
Return function	Test speed or rapid return speed (customer setting) can be selected. With zero-overshoot function (stops at position [0].)
Sample rupture detection function	Sensitivity can be set as desired. (Can be set to stop movable crosshead, reverse, or ignore on detection.)
Test force amplifier	Measuring range : Seven steps of x1, x2, x5, x10, x20, x50 or x100 times Auto zero : Provided (2 modes of all range auto zero and setting range auto zero.) Calibration : Auto calibration by data registration
Power supply voltage, Frequency	TGE-250kN~TGE-10kN:3-phase 200 ACV±20 V, 50/60 Hz TGE-5kN~TGE-200N: Single phase 100 VAC ~ 115 VAC, 50/60 Hz
Operating temperature /humidity range	Temperature 5 °C ~ 40 °C, Humidity 20 % ~ 80 %RH (Non condensing)
Notes	Note 1: The test force measurement range varies depending on the rated capacity of the load cell used. Note 2: Testing machines are available with large effective width for models with maximum test force of 50 kN, 100 kN or 250 kN. Note 3: Models are available with extended stroke. Note 4: Tensile testing stroke is for maximum test force capacity load cell with the (optional) chuck mounted.

parts Specification Sheet

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Parts No.	Specification sheet
TGJ-250kN	TGJ-250kN No.ENTGJ4113
TGJ-100kN	TGJ-100kN No.ENTGJ4111
TGJ-50kN	TGJ-50kN No.ENTGJ4105
TGJ-20kN	TGJ-20kN No.ENTGJ4104
TGJ-10kN	TGJ-10kN No.ENTGJ4103
TGJ-5kN	TGJ-5kN No.ENTGJ4102
TGJ-2kN	TGJ-2kN No.ENTGJ4101
TGJ-1kN	TGJ-1kN No.ENTGJ4123
TGJ-500N	TGJ-500N No.ENTGJ4122
TGJ-200N	TGJ-200N No.ENTGJ4121