AC timer

CT-110D CY-210D

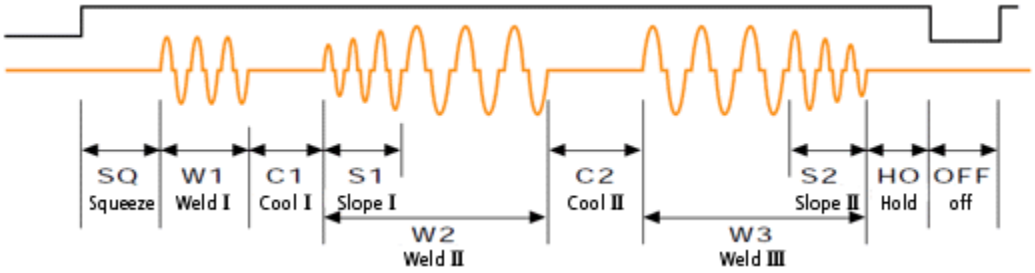
Various set-ups by simple operations.

Features

- Welding mode for high-tensile steel plate.
- Clear display with LED.
- Fifteen weld schedules and nine current steps.
- Three-step welding system with up-slope and down-slope features.
- Primary and secondary constant current and power supply voltage compensated control can be selected.
- Build-in current monitor and conduction angle monitor.
- Panel cover for protection from oil mist.
- Three counters.

- [1] Condition No.
  Displays the number to be registered with a certain weld schedule, and the number assigned for a registered weld-schedule for operation.

- [2] Three-stage weld type
  Even steel plates, which are relatively difficult to weld, can be handled by combining the three-stage welding.



- [3] Welding current
  Displays the welding current settings and measured currents at "W1: Weld I" to "Weld III".
- [4] Current monitor/power angle monitor
  The current monitor allows you to set the upper and lower limits within ±1 to 49% in reference to the set current and it monitors the current fluctuation. The conduction angle monitor allows you to set its monitoring range between 1° to 180° and it monitors the maximum conduction angle.
- [5] Step-up/counters/turns ratio of a transformer
  Various settings can be made by selecting a mode from 0 to 5.
- [6] Status monitor
  You can check the current timer status.

	Preset		Reset		Output signal		Buzzer	
	CT-110D	CY-210D	CT-110D	CY-210D	CT-110D	CY-210D	CT-110D	CY-210D
Total counter	0～9999	0～9999	Panel, External	Panel	Error	Error	Continuous sound	None
Weld counter	0～99	0～99	Automatic, Panel, External	Automatic, External	None (Buzzer only)	Insufficient weld count	1 sec	None
Work counter	0～9999	0～9999 (Monitor only)	Panel, External	Panel	Interlock output	None	Intermittent sound	None

- [7A] Welding/pressurization/count

When "Pressurize" is set for tip replacement or electrode polishing, while Run is input, Pressurize is output. When "Weld" is switched Off, only the sequence operates. Switches the count On and Off with "Count".

- [7B] Welding On/Off
  If it is switched off while tip dressing or test operation, only the sequence will be ran.
- [8] Reset
  Pressing this key while malfunction occurred will deactivate malfunction status.

Specifications

Model	CY-210D	CT-110D
Power requirements for welding power supply	220 / 230 / 240 / 380 / 400 / 415 / 440 / 460 / 480VAC -25% +10%, 50/60Hz	
Power requirements for control power supply	100 / 120 / 220 / 230 / 240VAC +/-20%, 50/60Hz	
Control method	Primary or secondary current feedback type constant current control through thyristor phase control or Power requirements fluctuation compensation control type	
Timer setting	15 schedules	
	"SQUEEZE," "WELD II," "COOL II," "WELD III," "SLOPE II," "HOLD," "OFF" 00 - 99cycles	
	"SLOPE I," 0 - 9cycles	
	"WELD I" "COOL I" 0 - 9cycles	"WELD I" "COOL I" 00 - 99cycles
Pulsation count	Switching used with Off mode 0 - 9 times	
Current setting range	1.0 - 80.0kA (Maximum current setting: 5.0 - 80.0kA)	
Control speed	Secondary current feedback type constant current control 1/2 cycle (Requires toroidal coil)	
	Primary current feedback type constant current control 1cycle (Requires	

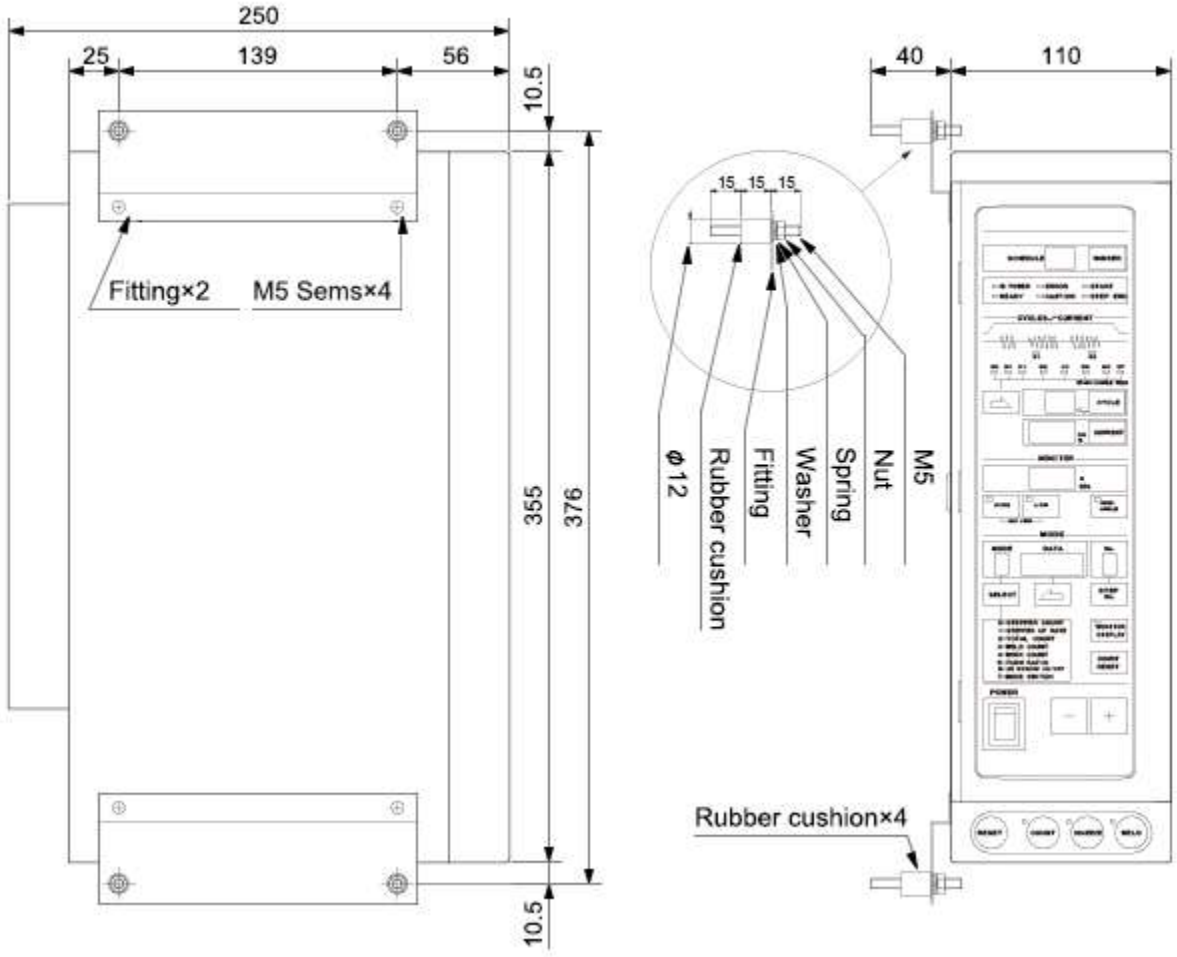
	CT coil)	
	Power requirements fluctuation compensation control 1cycle	
Current accuracy	For secondary current feedback type constant current control	
	a) ±2% max. of welding power supply voltage fluctuation +10% -15%(Accuracy based on error relative to full scale.)	
	b) ±2% max. of resistance load fluctuation ±15%(Accuracy based on error relative to full scale.)	
	c) ±2% max. of induction load fluctuation ±15%(Accuracy based on error relative to full scale.)	
Weld force output	Either 2-series control power supply voltage (1A max.) or 24VDC (0.6A max.)	
Step up	2 series, 9 stages	1 series, 9 stages
	Counter 0 - 9999	
	Current increase ratio 50 - 200% of the set current in 1% step	
External input signals	INTERLOCK/COUNT RESET (dip-switch-selectable):If a closed-contact signal is input,the system waits for the power to be turned on or the count to be reset.	INTERLOCK/WELD No. SET (dip-switch-selectable):If a closed-contact signal is input, the system waits for the power to be turned on when the interlock function is selected.
External output signals	INTERLOCK/COUNT UP (dip-switch-selectable):Outputs from 2 cycles from when the power is turned on until the power is turned off, or outputs when the counter expires (contact capacity: 110 V AC, 0.5 A)	INTERLOCK/WELD No. ERROR (dip-switch-selectable): Output from 2 cycles before the power is turned on until the power is turned off, or when a weld-count error occurs (contact capacity: 110 V AC, 0.5 A)
Error output	Self-diagnosis error Start input error Current-setting error Current stepper-up ratio setting error Thermostat error Thyristor short-circuit error No-power-supply error Current upper-and-lower-limit error	

	Cond. angle error Full-wave error Total counter-up Insufficient weld count (CY-210D Only) Step-up completion
Mass	4.5kg

Specifications subject to change without notice.

External view

- CT-110D



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