

ENTRON™

Controls for Resistance Welding EN1701

Mid Frequency Inverter Constant Current Controls



Constant Current

- Control adjusts current output every millisecond.
- No setup necessary for constant current operation.
- Compensation is still available without secondary coil.
- When optional secondary coil is used, secondary amps are directly displayed.
- Primary current sensors built in.
- High, Low and Pre limits.
- Manual calibration via 2 set points for secondary coil.
- Pop-up current meter to assist programming.
- Maximum primary Amp limit.
- Auto secondary coil test.
- Control uses a dual loop feedback system to optimize its performance in terms of both speed and accuracy.
- Results of last weld available immediately.

Features

- Millisecond control of weld time
- Spot, Pulsation or Seam Sequence
- RS232 Port
- Programmable options: Slope, Preheat, Quench, Temper, Postheat
- Linked Programs
- External Schedule Select
- Event & Error Outputs
- 64 Programs
- Repeat / Non-Repeat
- Earth Leakage Detection with Shunt Trip Breaker
- Isolation Contactor Timer
- Single/Dual Gun
- Programming in phase angle, kA or %
- Measurement Log
- 24 VDC flexible I/O (19 in 16 out); some mapable between weld functions, events, simple I/O sequences and remote PLC I/O
- Dual Gun Stepper with Presets and Tip Dress Counter
- Diverse schedule capabilities provide maximum application versatility
- I/O Sequencer
- 4-20 mA or 0-10 V analog inputs and outputs provided for pressure sensing and control
- Two 0-10V analog inputs (Sequencer)
- Program Select
- Retraction
- Dual-interval Welding Sequence

Options

- Detachable 4 x 20 LCD Program Pendant (RPP1) with data backup
- ENLINK 1701
- Ethernet MODBUS or EtherNet/IP
- Secondary coils
- Program Lockout
- Operation Mode Switch (OMS) – Program Lockout & Weld/No Weld
- Pressure Sensors
- Proportional Valve
- Isolation Contactor
- GFI for portable guns
- Water Flow Switch

Exclusive ENTRON one year warranty

Expanded Capabilities (Requires additional software and/or hardware)

TO PROGRAM, YOU WILL NEED:

Program Pendant (RPP1) (P/N 730005-002)

Detachable, hand-held pendant accesses all programmable variables and displays current and status.



– OR –

ENLINK 1701 (P/N 730005-004)

Communication software provides PC interface for remote programming and monitoring of control.



TO MEASURE CURRENT IN AMPS, YOU WILL NEED:

Secondary Rogowski Coils

Available in 3", 6" or 12" diameters. Provides actual secondary amperage measurements.



– OR –

Coil as part of Weld Transformer.

OPTIONAL:

- **Ethernet/Modbus Card** (P/N 730005-003)
Networks multiple controls.
Functions with ENLINK 1701.

– OR –

- **EtherNet/IP Card** (P/N 730005-014)
Provides ability to network multiple controls.

- **Pressure Sense and Control Hardware**

Using provided analog I/O, add differential sensors, single-ended sensors, or 1/2" and 1 1/4" port proportional controllers.



- **GFI for portable guns**



T Cabinet
(24" x 24" x 10")

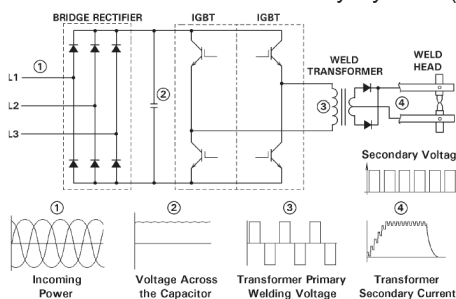
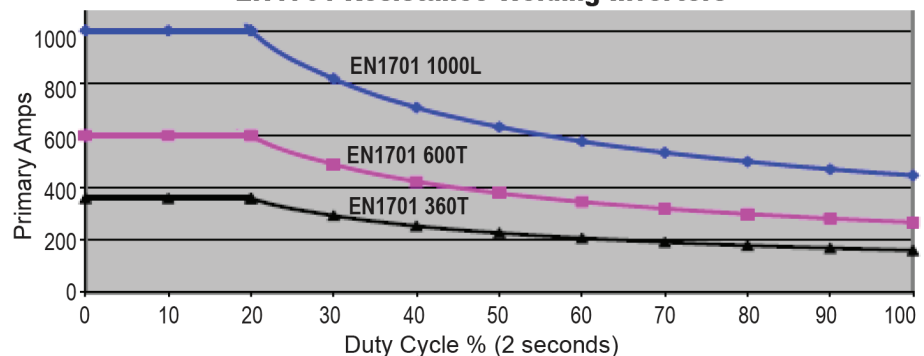


Specifications

	EN1701-360T	EN1701-600T	EN1701-1000L
Maximum output power @ 20% duty	234 kVA	390 kVA	650 kVA
Maximum line input voltage	480 VAC @ 50/60 Hz	480 VAC @ 50/60 Hz	480 VAC @ 50/60 Hz
Maximum output current	360 A	600 A	1000 A
Maximum continuous output current	161 A	268 A	447A
Maximum line input current per phase	209 A	347 A	577 A
Continuous rms line current per phase @ 20% duty	93 A	155 A	258 A
Breaker (standard) *	100 Amp 3 pole*	200 Amp 3 pole*	250 Amp 3 pole*
Power factor	leading	leading	leading
Regulation feedback	secondary or primary	secondary or primary	secondary or primary
Current regulation accuracy	±2%	±2%	±2%
Current regulation repeatability	±1%	±1%	±1%
Inverter switching frequency	1 kHz	1 kHz	1 kHz
Maximum averaging time	2 seconds	2 seconds	2 seconds
Water flow rate	1 GPM	1 GPM	1 GPM
Maximum water inlet temperature	104° F (40° C)	104° F (40° C)	104° F (40° C)
Transformers: 40 kVA	✓		
56 kVA 70:1	✓	✓	
76 kVA 54:1	✓	✓	
100 kVA 50:1		✓	
130 kVA			✓
170 kVA			✓

* Control must be ordered with 3 pole shunt trip breaker.

EN1701 Resistance Welding Inverters



One year warranty offered on
EN1701 Series Controls

Distributed by:

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