THE SUNSTONE CDDP-A

ADVANCED CAPACITIVE DISCHARGE RESISTANCE WELDER

CAPACITIVE DISCHARGE WELDER WITH MONITORING

Sunstone's advanced CD welders offer many capabilities including weld monitoring, SPC tools, and a large capacitive touch-screen interface. The touch-screen interface provides easy access to all weld parameters. In addition, you get a visual of the weld waveform graph, weld histograms, alarms, warnings, and even on-screen documents and videos. For automated production settings, the welder has multiple PLC protocols. You can also set up multiple machines in a simplified way thanks to the clone feature. Cloning allows you to copy all your parameters/settings and easily export/import them to other machines.

Capacitive Discharge (CD) resistance welders have many advantages over other welder types. Since CD welders use capacitors to store and release weld energy, your weld energy will be highly repeatable and will not be affected by line voltage fluctuations. You can also achieve quick energy release for welding highly conductive metals such as copper. This quick energy release is concentrated into a small area, generating only a small heat signature or heat affected zone.

TYPICAL APPLICATIONS

- Honey comb tacking
- Battery pack welding
- Cross wire welding
- Thermocouple welding
- Copper aluminum and brass thin sheet and wire
- Miscellaneous resistive applications

FEATURES

- Touch-screen interface
- Set current or voltage
- Visual graph of weld waveform
- Statistical process controls
- Histogram
- Comparator
- Alarms and warnings
- Timestamp data feedback
- Import/Export weld data
- Software updates
- Multiple languages
- Save settings
- Wi-Fi connectivity
- On-screen PDFs and videos
- Full welder cloning
- Emergency Stop
- Roll-Spot Welding
- High-Precision Energy Adjustment
- Lock-Out Mode
- PLC Ready

MADE IN THE USA

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TECHNICAL SPECIFICATIONS

Table 1: Peak weld current shown by model number and external cabling gauge number (AWG). Four and eight AWG cabling is typically seen when using hand held attachments.

	CD200DP-A	CD400DP-A	CD600DP-A
1 AWG4 Ft	6583	7625	8080
4 AWG 6Ft	5448	6310	6690
8 AWG 6 Ft	3038	3520	3730
*Minimum Load = 1mOhm, using a smaller load may damage the welder.			

Table 2: Weld speed in welds per minute by Dual Pulse model number at maximum energy.

% of Total Weld Energy (Pulse Width at 100%)	Rep Rate CD200DP-A Welds/Min (pulse energy)	Rep Rate CD400DP-A Welds/Min (pulse energy)	Rep Rate CD600DP-A Welds/Min (pulse energy)
0.10% both pulses enabled	650 (0.2ws)	600 (0.4ws)	530 (0.6ws)
0.10%	550 (0.2ws)	530 (0.4ws)	500 (0.6ws)
1%	450 (2ws)	290 (4ws)	240 (6ws)
5%	250 (10ws)	160 (20ws)	130 (30ws)
10%	190 (20ws)	120 (40ws)	90 (60ws)
25%	130 (50ws)	70 (100ws)	60 (150ws)
50%	90 (100ws)	50 (200ws)	40 (300ws)
100%	60 (200ws)	30 (400ws)	30 (600ws)

Table 4: Power Specifications

Feature	All CDDP-A Welders
Single and Dual Pulse	Yes
Pulse 1 Energy Adjustment (%of set-point energy)	0% - 30%
Pulse 2 Energy Adjustment (%of set-point energy)	0% - 100%

Table 3: Sunstone Dual Pulse General Technical Specifications

	CD200DP-A	CD400DP-A	CD600DP-A
Input Voltage	85 - 260 VAC	85 - 260 VAC	85 - 260 VAC
Frequency Range	47-63Hz	47-63Hz	47-63Hz
Power Factor (typ.)	PF>0.94/230VAC PF>0.99/115VAC	PF>0.94/230VAC PF>0.99/115VAC	PF>0.94/230VAC PF>0.99/115VAC
AC Current (typ.)	8.5A/115VAC 5A/230VAC	8.5A/115VAC 5A/230VAC	8.5A/115VAC 5A/230VAC

Table 5: Weld Pulse Characteristics

Model	Min and Max Output	Pulse Width		Rise Time (to max voltage)	Min Pulse Height	Max Pulse Height
CD200DP-A	0.2 ws - 200 ws	Min	0.27 ms	0.2 ms	1.1 V	15.8 V
		Max	19.5 ms			
CD400DP-A	0.2 ws - 400 ws	Min	0.29 ms	0.2 ms	0.9 V	18.3 V
		Max	30.0 ms			
CD600DP-A	0.2 ws - 600 ws	Min	0.31 ms	0.2 ms	0.8 V	19.4 V
		Max	40.5 ms			

Table 6: Welder Physical Characteristics

	CD200DP-A		CD400DP-A		CD600DP-A	
	Inches	cm	Inches	cm	Inches	cm
Height	12	30.5	12	30.5	12	30.5
Width	9	22.8	9	22.8	9	22.8
Depth	19	48.2	19	48.2	19	48.2
Weight	43.3 Lbs	19.6 Kg	44.5 Lbs	20.2 Kg	45.8 Lbs	20.8 Kg

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