

New Product

Super Timer

Super Timer

VX-300K

For AC
(Alternating Current)
use



From "Difficult"
to "Easy"!

High Quality but
easily available!

60
conditions

mounted!

Reassuring quantity of memory
Significantly improved
operability and visibility!
Various welding waveform,
fulfilling counter function!!

DAIHEN Corporation



JAB
QS Accreditation
R 002



REGISTERED ORGANIZATION
No.0113-ISO 9001

ISO 9001

Surprising effects, only by replacing a standard volume timer with the microcomputer timer! ...

Microcomputer timer

New innovation that VX series realizes!
Leave it to the microcomputer for reliable welding results/quality control!

Super Timer

VX-300K

For AC
(Alternating Current)
Use

Just replacing a standard volume timer with the microcomputer timer ...

Such a change into high quality production!
Yield rate is improved!!

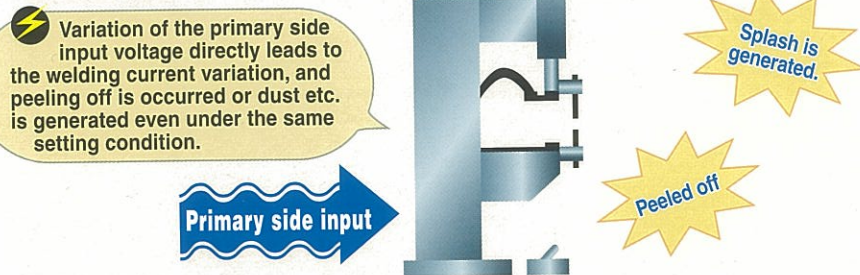
Point 1 Regarding a current change by inserting a product in a direction to the pocket ...: Microcomputer timer ensures the Stability and Reliability!

With a standard timer ...:



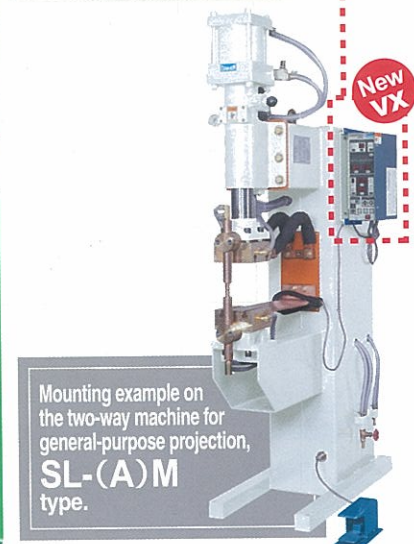
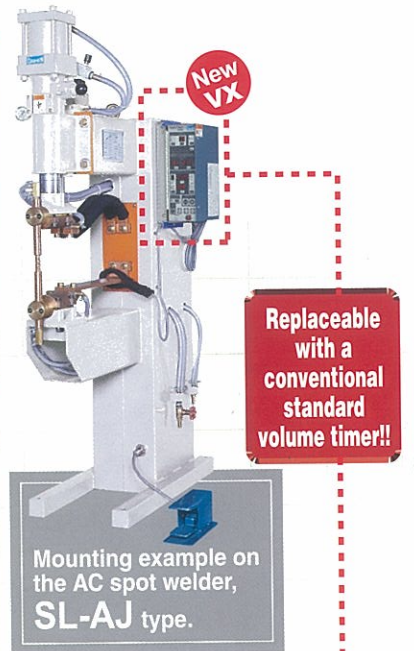
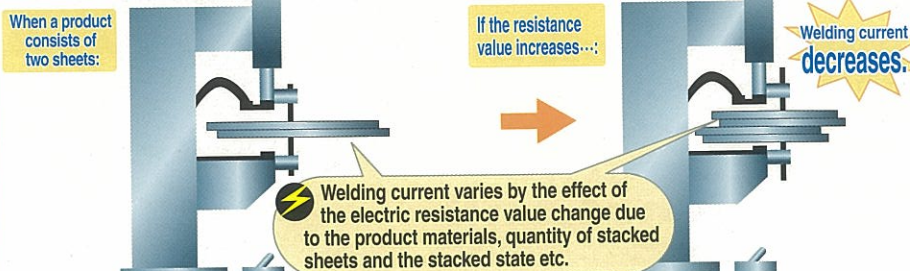
Point 2 Regarding a change of current due to variation of the primary side input ...: Microcomputer timer ensures the Stability and Reliability!

With a standard timer ...:



Point 3 Regarding a current change by the resistance value of an electrode's tip ...: Microcomputer timer ensures the Stability and Reliability!

With a standard timer ...:



Just replacing a standard volume timer with the microcomputer timer ...

**You can feel that it is realized "From Difficult to Easy!
High Quality but easily available!"**

60
conditions

Sufficient 60 conditions

In order to be applicable for various materials, its memory capacity is significantly increased from conventional 15 conditions to 60! Since it is configured with 15 conditions × 4 groups = 60 conditions, it is possible to be controlled effectively by materials and customers, etc.

Double counter indication

Abundant counter functions

- **Production counter**
Available to indicate the present production quantity. Control the production percentage easily.
- **Product spot number counter**
Available to control the welding spot number on one product. It is very effective to prevent from forgetting the welding.

Include the welding spot increase function as standard equipment

If additional welding becomes necessary due to misalignment of welding spots etc., the additional welding is possible without adding the number to the counter.

Effective counter usage

Necessary number of welding spots for one workpiece is set in the "Product spot counter." You can proceed the operation by pressing the welding spot adding button only when the additional welding is necessary, and the completed number of work piece is displayed with increasing the value of "Production counter" every time after finishing the specified spots.



Large LED is adopted.

The large LED with letter height of 13mm is adopted with a high regard to the visibility and operability.

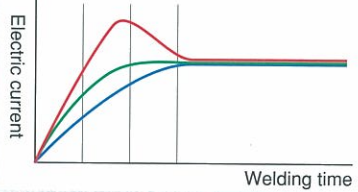


(Full size)

Starting current setting function

Set the current value and welding time individually at the slope part. It is very effective for welding high-tension materials to which a starting current deeply affects on the quality, and for quality stabilization of the projection welding.

● **Various images of starting**



Possible to set starting current freely.

Password lock function

By locking it with a password, an improper change of the welding condition setting value by a person other than administrators is prevented.



(This display is common to the product spot number counter)

● Compatible to our old spot welders or other companies' models.

By mounting the new VX-300K timer on our existing spot welders or other companies' models, you can upgrade the functions as well as stabilization of the quality easily.

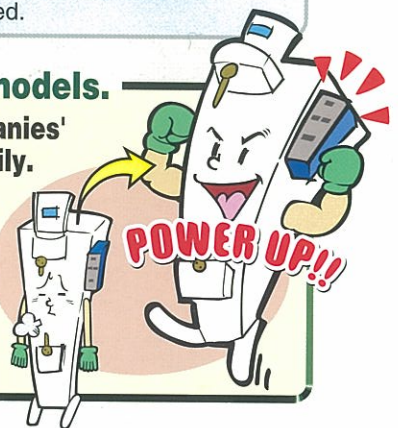
<Necessary parts for replacement of the timer>

- ① Toroidal coil:
Parts No. STVX30-09001

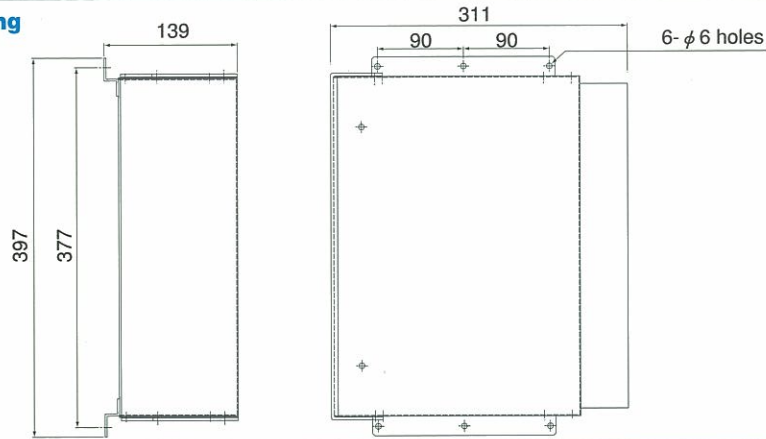


- ② Bracket: Parts No. STVX00-80BKT
*This bracket is necessary for SL-AJ(S)series.
- ③ Connection cables

- Cable between spots - main body: Parts No. STVX30-20000
- Input/output signal cables: (To be prepared by customers)
- * Since the connection cables vary depending on the equipment to be mounted, please contact our company's sales department.
- * DAIHEN will perform installation of the product with a separate charge.



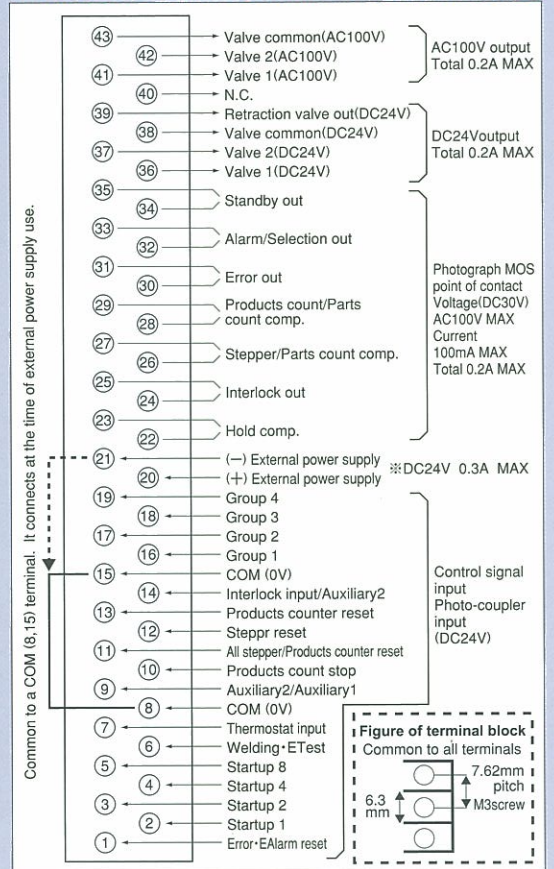
Dimensional Outline Drawing



Standard Specification

Type	VX300K	
Welding power supply	AC220V/440V	-20%+10% 50/60Hz
Power supply voltage	100V (Input voltage is AC100V only. In case of using other voltage, transformer is necessary to be prepared.)	
Outside dimension (W×D×H)	139mm×311mm×397mm	
Mass	6.2 kg	
Control system	Primary or secondary current feedback type constant current control by thyristor phase control, or Power supply voltage variation compensation control system	
Control rate	1 cycle or half cycle (Secondary constant current control) 1 cycle (Primary constant current control)	
Initial response rate	3 cycles or less (At secondary constant current control) → Time from initial current-carrying until reaching the ±10% or less of the setting current value	
Current accuracy (Tolerance for full scale)	Power supply voltage variation	±2% or less against +10%, -15% (Secondary constant current control) ±3% or less against +10%, -15% (Primary constant current control)
Power supply voltage variation compensation accuracy	1 cycle	
No. of conditions	4 groups × 15 conditions = 60 conditions	
Applied output voltage	Valve 1, valve 2: AC100V output (max. 0.2A) + DC24V output	
Output signal	Voltage used: AC100V or below, DC24V or below (ON current: 100mA or less)	
Initial voltage application (SQ)	1 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Welding 1 (W1)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Cooling 1 (C1)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Slope 1 (S1)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Welding 2 (W2)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Cooling 2 (C2)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Welding 3 (W3)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Slope 2 (S2)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Hold (HO)	1 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Halt (OF)	0 - 99 cycles (Minimum unit: 1 cycle) 4 groups × 15 conditions	
Repeating (PU) times	0 - 9 times 4 groups × 15 conditions	
Maximum current setting range	Setting range: 5 - 80kA (Minimum unit: 0.1kA) 2 conditions (correspond to the valve)	
Current value setting range	At constant current control	Welding 1, welding 2, welding 3: 1kA or more and also a range of 10% - 100% of the maximum current range setting value
	At power supply voltage variation compensation control	Welding 1, welding 2, welding 3: 10% - 100%
Primary current control range	50 - 1500A	
Current monitor	Current monitor setting range (Effective only at constant current control)	Upper limit setting: 0% - 30% (Monitoring is off when set to 0%.) 2 conditions (correspond to the valve) Lower limit setting: 0% - 30% (Monitoring is off when set to 0%.) 2 conditions (correspond to the valve)
	Monitoring value	Average effective value of the current except for the first 2 cycles, slope 1, and slope 2
	Output of judgment	Abnormal code indication and abnormal signals are output when the current is at outside the current monitor setting range.
Setting range of maximum current-carrying angle monitor	Upper limit setting: 10° - 180° (Monitoring is off when set to 0°), 2 conditions (correspond to the valve)	Lower limit setting: 10° - 180° (Monitoring is off when set to 0°), 2 conditions (correspond to the valve)
	① An abnormal signal for closing the circuit is output when the current-carrying angle is increased up to the upper limit setting current-carrying angle or more. ② An abnormal signal for closing the circuit is output when the current-carrying angle is decreased to the lower limit setting current-carrying angle or less. If upper and lower limits are both set to "000," monitoring is not carried out.	
Transformer turn ratio setting range	10.0 - 99.9	
Current step-up	a. Step No.:	1 - 6: 2 conditions (correspond to the valve)
	b. Step count:	0 - 9999, 2 conditions (correspond to the valve)
	c. Current increasing ratio:	50% - 200%, 2 conditions (correspond to the valve)
Number of product welding spots	0 - 999: Max. 4 conditions (correspond to a group)	
Number of production	0 - 9999: Max. 4 conditions (correspond to a group)	

Control Signal Terminal layout drawing



Separate sales article

● Toroidal coil
Parts No.
STVX30-09001



● Bracket
Parts No. STVX00-80BKT
※ Necessary for our AC spot welder (SL-AJ(S) series)

In accordance with DAIHEN's policy to make continuing improvements, design and/or specifications are subject to change without notice and without any obligation on the part of manufacturer.

DAIHEN Corporation

5-1. Minamisenrioka, Settu, Osaka 566-0021, Japan
Phone : (Country code 81) 6-6317-2506
Fax : (Country code 81) 6-6317-2583

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