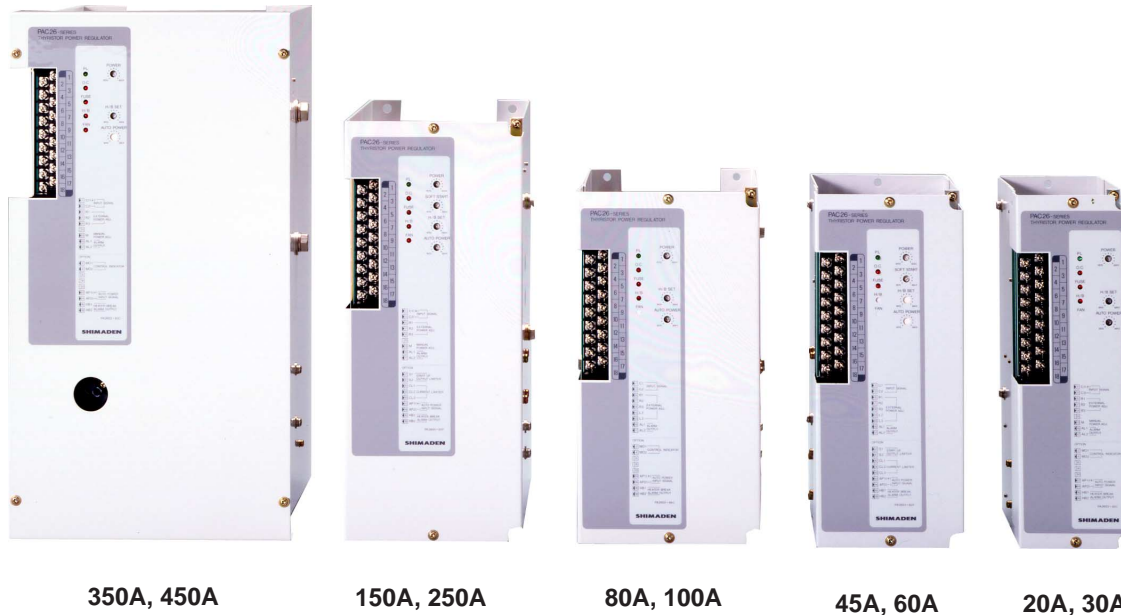


# SHIMADEN SINGLE PHASE POWER REGULATOR

## SERIES PAC26 20~450A

- Wide application with variety of functions
- Suitable for air conditioning, electric, furnace, dryer, bio engineering, food industry, chemical industry, plastic formation and control of heat source applications.



## FUNCTION

### Standard Function

Electronic over current protect function:

Protects thyristor element by shutting off the over current detected by a load current monitoring CT.

Constant voltage characteristics by means of voltage feedback:

Stable output provided by the voltage control function and easy operation achieved by the linear characteristics of control input and output voltage.

Soft start function:

Setting suitable soft start for the load.

### Additional Function (option)

Automatic power adjusting function:

The suitable power for the control temperature is continuously controlled by a signal from the programmable controller, computer and adjuster. Applicable for soft control of the low range.

Constant-current control (Current feedback):

Applicable to controlling the pure metallic heater and the Kanthal Super heater.

Constant-power control (Power feedback):

Applicable to controlling the SiC and the carbon heater, and applicable to high stability controlling.

Power linear control (Voltage square feedback):

Applicable to precise controlling for Nichrome heater load with power linear characteristics of the control input / output voltage.

Current limiting function:

Applicable to loads with rush current on starting and continuous usage over current condition such as pure metallic, Tungsten and Molybdenum heaters.

Start up output limiting function:

Applicable to the rush current reduction and load protection on turning on the power supply.

Heater break alarm:

Alarm display and output in case of detecting the low power condition of the broken heater and heater defect.

Rapid fuse:

Perfect protection for the thyristor device and the power line from the over current of the short circuit and the grounding.

Power adjustment function:

Addition of various manual equipment used for adjusting ramp, base (residual output), manual and high / low.

### Monitor and Alarm Output on the Trouble Situation

Over-current protection:

[O.C] monitor lights and alarm output on

Fan stop (for models over 150A):

[FAN] monitor lights and alarm output on

Rapid fuse burnt out:

[FUSE] monitor lights and alarm output on

Heater break alarm:

[H / B] monitor lights and warning output on

**COMMON SPECIFICATION**

**Control input and Ratings**

Contact signal: Non-volatage contact signal  
 Current input: 4~20mA DC,  
 Receiving impedance: 100Ω  
 Voltage input: 1~5V DC,  
 Input impedance: 200kΩ  
 0~10V DC,  
 Input impedance: 200kΩ

**Power Voltage and Ratings**

100V type: 100~110V ±10% 50 / 60Hz  
 110~120V ±10% 50 / 60Hz  
 200V type: 200~220V ±10% 50 / 60Hz  
 220~240V ±10% 50 / 60Hz  
 400V type: 380~400V ±10% 50 / 60Hz  
 400~440V ±10% 50 / 60Hz

**Power Supply for 400V**

**Type and External Power**

**Ratings**

20~100A: 200~220V 20VA  
 150~450A: 200~220V 50VA

**Current Capacity and**

**Cooling System**

20, 30, 45, 60, 80 & 100A: Self-cooling system  
 150, 250, 350 & 450A: Forced air cooling system

**Over-current Protection**

**System**

Electronic type (gate breaking system)  
 standard: about 130% of rated current  
 Rapid fuse type (optional): 130~150% of rated current  
 Reset  
 Electric type: Turn power OFF and reapply  
 Rapid fuse type: Replace fuse

**Power Control Function**

Standard: Power adjustment (internal) / 0~100%  
 Option: External power / 0~100%  
 Manual power / 0~100%  
 Base power / 0~100%  
 High-low power (contact input type)  
 •High power / 0~100%  
 •Low power / High × 0~100%  
 External power + Manual power  
 External power + Base power  
 Auto power control function / 50~100%

**Alarm Monitors and Rating**

Over-current: [O.C] monitor lights. / AL 1-AL 2 conducted  
 Fan stop for models over 150A: [FAN] monitor lights. / Same as above  
 Fuse burnt out: [FUSE] monitor lights. / Same as above  
 Heater break: [H / B] monitor lights. / HB1-HB2 conducted  
 Output contact rating: 240V AC 1A / load resistance

**Operating Environment**

Ambient temperature range: -10~50°C  
 Ambient humidity: 90% or less without condensation

**Insulation Resistance**

Power terminals and chassis: 500V DC 20MΩ

**Dielectric Strength**

Power supply terminals and chassis:  
 100~240V power supply: 2000V AC 1 minute  
 380~440V power supply: 2500V AC 1 minute

**Material / Finish**

**External Dimensions and**

**Weight**

Ordinary steel plate / paint coating  
 See external dimension diagrams.

**INDIVIDUAL SPECIFICATIONS**

**Phase Control System (PAC26P)**

Control system: Phase control system  
 Soft start time: Adjustable 1~10 sec. (90% rise)  
 Output voltage control range: 0~97% minimum of input voltage  
 Output stability: Output fluctuation less than ± 2% when input fluctuation is ± 10%  
 Output voltage characteristics: Linear output by voltage feedback  
 Over-current protection system: Equipped with electronic protective function  
 Applicable load: All types of heaters (added functions to be selected according to heater characteristics)

**Additional Functions (options)**

Power control function: See "Common Specification"  
 Constant-current control (current feedback): For pure metallic heaters, super Kanthal, etc.  
 Constant-power control (power feedback): For SiC and carbon heaters  
 Voltage square control (voltage feedback): Nichrome wire heaters  
 Output limiting function:  
 Current limiting: To limit to 50~100% of rated current  
 Start up output limiting: To limit to 0~60% output for 1~60sec.  
 Rapid fuse: Equipped with alarm output function  
 Heater break alarm: Setting at 0~100% of rated current

**Cycle Base Zero Voltage Switching System (PAC26C)**

Control system: Cycle base zero voltage switching system  
 Output power control range: 0~95% minimum of load current  
 Over-current protection system: Equipped with electronic protective function  
 Applicable load: Constant-resistance heaters such as a nichrome wire heater

**Additional Functions (options)**

Power control function: See "Common Specification"  
 Operating output indicator: 1~100%  
 Rapid fuse: Equipped with alarm output function  
 Heater break alarm: Setting at 0~100% of rated current

# SHIMADEN SINGLE PHASE POWER REGULATOR

## ORDERING INFORMATION (PAC26P)

ITEMS	CODE		SPECIFICATIONS		
SERIES	PAC26P		Phase Angle Control Single Phase Power Regulator		
CONTROL INPUT	2		Contact		
	3		1~5V DC Input Impedance: 200kΩ		
	4		4~20mA DC Receiving Impedance: 100Ω		
	6		0~10V DC Input Impedance: 200kΩ		
	9		Others (Please consult before ordering.)		
POWER SUPPLY	13-		100~110V AC		
	14-		110~120V AC		
	15-		200~220V AC		
	16-		220~240V AC		
	17-		380~400V AC		
	18-		400~440V AC		
CURRENT CAPACITY	100~240V AC		380~440V AC		
	021	20A	022	20A	
	031	30A	032	30A	
	041	45A	042	45A	
	061	60A	062	60A	
	081	80A	082	80A	
	101	100A	102	100A	
	151	150A	152	150A	
	251	250A	252	250A	
	351	350A	352	350A	
	451	450A	452	450A	
	FEEDBACK FUNCTION	0		Constant voltage (standard feature)	
		1		Constant current	
		2		Constant power	
3			Voltage Square-root		
OUTPUT CONTROL FUNCTION	0		None		
	1		Startup time output control limiting (0~60%, 1~60sec.)		
	2		Current limiting		
	3		Startup time output control + Current limiting		
EXTERNAL POWER ADJUSTER	CONTACT INPUT	N	None (Internal installation as standard)		
		P	External power adjuster		
		B	Base (low) power adjuster		
		H	High / Low power adjuster		
	CURRENT / VOLTAGE INPUT	P	External power adjuster		
		M	Manual power adjuster		
		B	Base power adjuster		
		W	External power + Manual power		
	Y	External power + Base power			
HEATER BREAK ALARM	0		Without		
	1		With (0~100% setting of rated current)		
RAPID FUSE	0		Without		
	1		With (See rapid fuse option.)		
AUTO POWER ADJUSTMENT FUNCTIONS	0		Without		
	4		4~20mA DC Receiving Impedance: 100Ω		
	6		0~10V DC Input Impedance: 200kΩ		
REMARKS	0		Without		
	9		With (Please consult before ordering.)		

### Rapid Fuse Option

CONSTANT CURRENT / VOLTAGE	PARTS NO.	
20A	100~240V	25SHA 30S
	380~440V	50SHA 30S
30A	100~240V	25SHA 40S
	380~440V	50SHA 40S
45A / 100~440V	50SHA 60S	
60A / 100~440V	50SHA 80S	
80A / 100~440V	50SHB 120S	
100A / 100~440V	50SHB 150S	
150A / 100~440V	50SHB 200S	
250A / 100~440V	50SHB 350S	
350A / 100~440V	CSSF 500	
450A / 100~440V	CSSF 600	

## ORDERING INFORMATION (PAC26C)

ITEMS	CODE	SPECIFICATIONS		
SERIES	PAC26C	Cycle Base Zero Voltage Switching Single Phase Power Regulator		
CONTROL INPUT	2	Contact		
	3	1~5V DC Input Impedance: 200kΩ		
	4	4~20mA DC Receiving Impedance: 100Ω		
	6	0~10V DC Input Impedance: 200kΩ		
	9	Others (Please consult before ordering.)		
POWER SUPPLY	13-	100~110V AC		
	14-	110~120V AC		
	15-	200~220V AC		
	16-	220~240V AC		
	17-	380~400V AC	Note: 200V power supply is separately required for electric source and power for fan.	
	18-	400~440V AC		
CURRENT CAPACITY		100~240V AC	380~440V AC	
	021	20A	022	20A
	031	30A	032	30A
	041	45A	042	45A
	061	60A	062	60A
	081	80A	082	80A
	101	100A	102	100A
	151	150A	152	150A
	251	250A	252	250A
	351	350A	352	350A
	451	450A	452	450A
	EXTERNAL POWER ADJUSTER	CONTACT INPUT	N	None (Internal installation as standard)
P			External power adjuster	
B			Base (low) power adjuster	
H			High / Low power adjuster	
CURRENT / VOLTAGE INPUT		P	External power adjuster	
		M	Manual power adjuster	
		B	Base power adjuster	
		W	External power + Manual power	
Y	External power + Base power			
HEATER BREAK ALARM	0	Without		
	1	With		
RAPID FUSE	0	Without		
	1	With (See rapid fuse option.)		
AUTO POWER ADJUSTMENT FUNCTIONS	0	Without		
	4	4~20mA DC Receiving Impedance: 100Ω		
	6	0~10V DC Input Impedance: 200kΩ		
OPERATING OUTPUT INDICATOR	0	Without		
	1	With		
REMARKS	0	Without		
	9	With (Please consult before ordering.)		

### Rapid Fuse Option

CONSTANT CURRENT / VOLTAGE	PARTS NO.	
20A	100~240V	25SHA 30S
	380~440V	50SHA 30S
30A	100~240V	25SHA 40S
	380~440V	50SHA 40S
45A / 100~440V		50SHA 60S
60A / 100~440V		50SHA 80S
80A / 100~440V		50SHB 120S
100A / 100~440V		50SHB 150S
150A / 100~440V		50SHB 200S
250A / 100~440V		50SHB 350S
350A / 100~440V		CSSF 500
450A / 100~440V		CSSF 600

# SHIMADEN SINGLE PHASE POWER REGULATOR

## TABLE OF POWER AND GENERATED HEAT

Note that the maximum output of the thyristor on the voltage / power control experiences a 5~6% power loss as the efficiency values of the phase control system and the cycle operation system are 94% and 95%, respectively. It has to be considered while designing the power system. The ventilation also has to be considered for temperature rise of the installed area by referring to the following heat generated.

CURRENT CAPACITY ITEMS	POWER FOR VOLTAGE [KW]					TOTAL HEAT GENERATED ON MAXIMUM OUTPUT [W]		COOLING
	100V	200V	380V	400V	440V	WITH FUSE	WITHOUT FUSE	
20A	2	4	7.6	8	8.8	32	29	Self-cooling system
30A	3	6	11.4	12	13.2	49	45	
45A	4.5	9	17.1	18	19.8	60	54	
60A	6	12	22.8	24	26.4	75	65	
80A	8	16	30.4	32	35.2	94	85	
100A	10	20	38.0	40	44.0	117	105	
150A	15	30	57.0	60	66.0	193	175	Forced air cooling system
250A	25	50	95.0	100	110.0	327	300	
350A	35	70	133.0	140	154.0	420	385	
450A	45	90	171.0	180	198.0	560	520	

\*Total heat generated is a summation of the generated heat on the thyristor, fan and fuse.

## SELECTION OF SPECIAL HEATER AND CONTROL SYSTEM AND ADDITIONAL FUNCTION

In case of using the heater listed in the following table, an additional function (single or multiple) should be selected.

ITEMS SERIES	CONTROL SYSTEM	APPLICABLE HEATER	ADDITIONAL FUNCTION				REQUIREMENT FOR SETTING TO HEATER TERMINAL VOLTAGE BY USING TRANSFORMER
			CONSTANT CURRENT CONTROL	CONSTANT VOLTAGE CONTROL	CURRENT LIMITING	START-UP TIME OUTPUT LIMIT	
PAC26P	Phase control system	Super Kanthal	suitable		applicable		yes
		Platinum	suitable		applicable		yes
		Molybdenum	suitable		suitable	applicable	yes
		Tungsten	suitable		suitable	applicable	yes
		Carbon	applicable	suitable			yes
		Saltbath	suitable				yes
		SiC		suitable		applicable	

## CONTROL SYSTEM AND CHARACTERISTICS

ITEMS	NOISE GENERATION	ADDITIONAL TRANSFORMER	INPUT VOLTAGE FLUCTUATION AND OUTPUT FLUCTUATION
PHASE CONTROL SYSTEM	exist	can be used	Output fluctuation less than $\pm 2\%$ when input fluctuation is $\pm 10\%$ (constant voltage function is standard)
CYCLE BASE ZERO VOLTAGE SWITCHING SYSTEM	none	can not be used	output with fluctuation

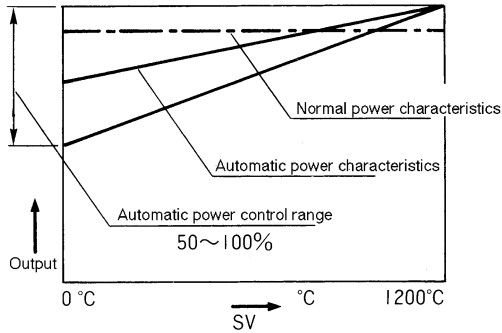
Note: For the cycle base zero voltage switching system, output indication fluctuates when a power meter or a current meter is connected to the output terminal. Select operating output indicator (option) for indicating output value.

## CONTROL SYSTEM AND OUTPUT WAVEFORM

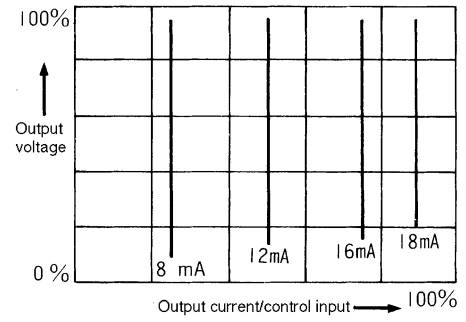
OUTPUT	OUTPUT WAVEFORM OF THE PHASE CONTROL SYSTEM	OUTPUT WAVEFORM OF THE CYCLE BASE ZERO VOLTAGE SWITCHING SYSTEM
0%		
30%		
50%		
70%		
100%		

**DRAWING OF ADDITIONAL FUNCTION CHARACTERISTICS**

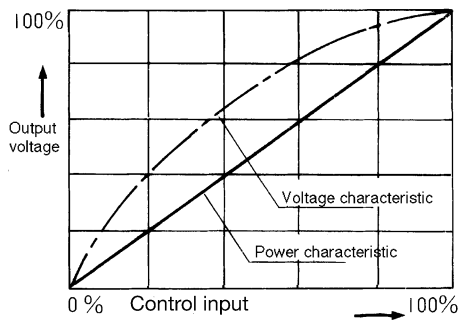
• Automatic Power Adjusting Function



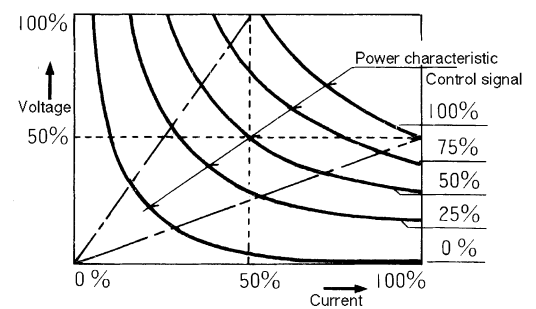
• Constant Current Characteristics (Current Feedback)



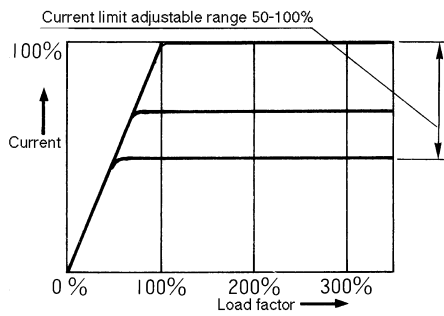
• Power Linear Characteristics (Voltage Square Feedback)



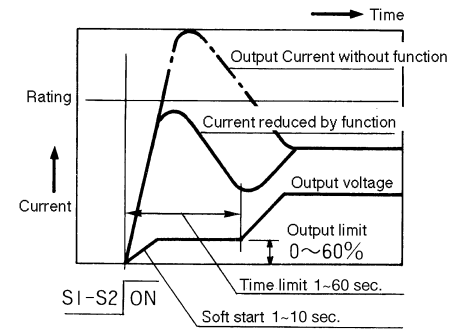
• Constant Power Characteristics (Power Feedback)



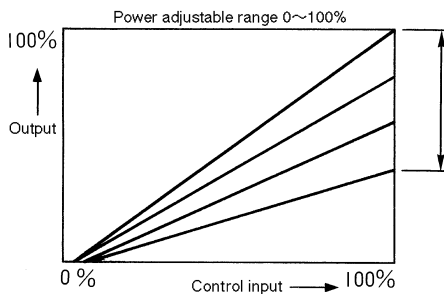
• Current Limiting Characteristics



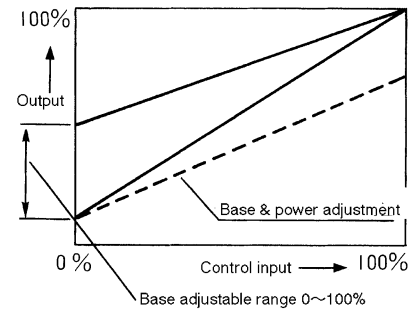
• Start up Output Limiting Characteristics



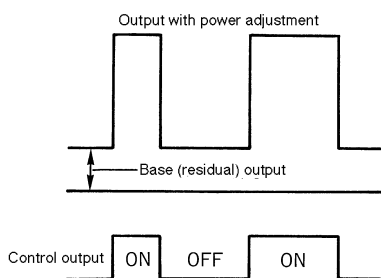
• External Power Characteristics



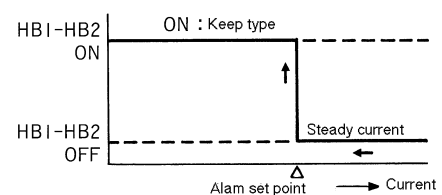
• Base (Residual) Power Characteristics



• High / Low Power Characteristics



• Heater Break Alarm Circuit

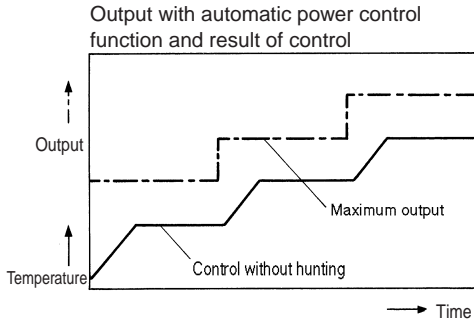


# SHIMADEN SINGLE PHASE POWER REGULATOR

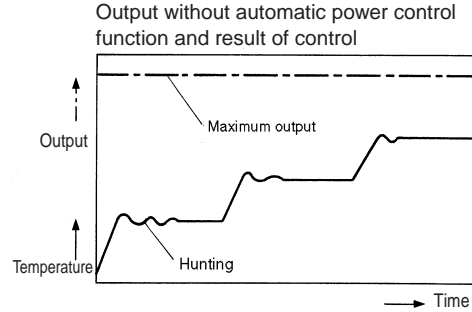
## EXAMPLE OF THE AUTOMATIC POWER FUNCTION

The automatic power function is a power adjusting function that provides suitable control output to the thyristor by external equipment (programmable controller, computer and etc.) and improves controlling ability continuously providing suitable power to the SV (Set Value)

### • Constant Value Control

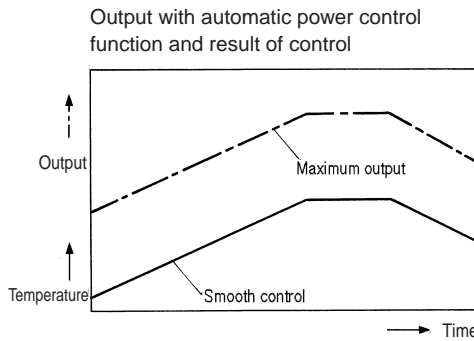


Power changes along with the SV value to prevent overshooting and allow optimum control.

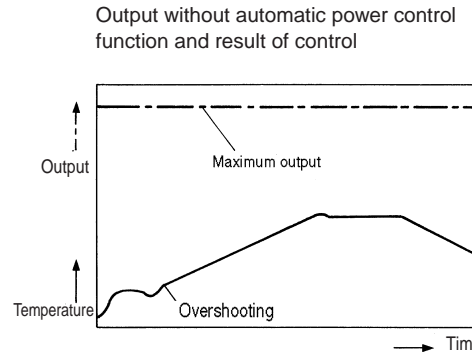


The power gets excessive in low range, resulting in overshooting and hunting.

### • Program Control

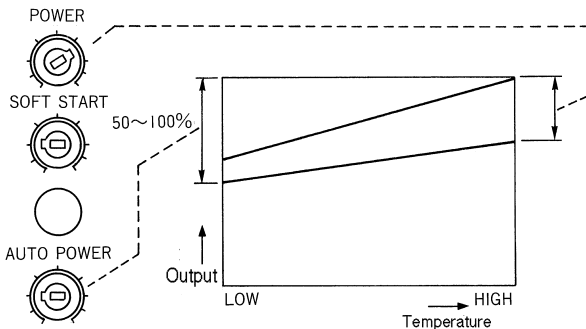


Soft control of the program is possible without transient characteristic (overshooting) at the start time.



Power gets excessive at the start time, resulting in overshooting, and in some cases control characteristics deteriorate in a low range.

### • Procedure for Automatic Power Adjusting Function



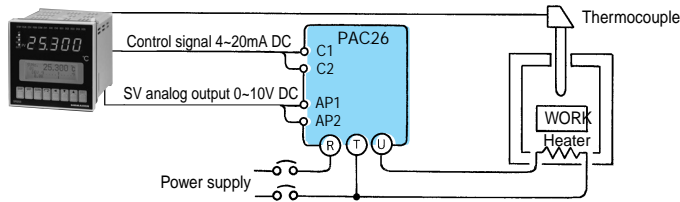
By setting output optimum to the low range set value on the [AUTO-POWER] adjuster, the output characteristic is designated to the line connecting automatic power adjusting value and the output at the maximum temperature. In case adjusting maximum output, adjusters for internal power and the external power are employed.



• **Soft Control by Automatic Power Adjusting Function**

In case of achieving small temperature stress such as bio industry and fine ceramic manufacturing, the automatic power adjustment is effective for precision control. The temperature control range expands for the same PID value in the PID control condition.

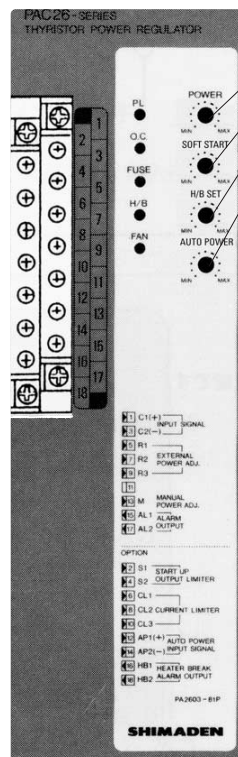
• **Combination with Type SR253(SR25) Controller**



When the SV analog output (4~20mA or 0~10V) of the SR253(SR25) controller is input to the auto power terminals (AP1 and AP2) of the PAC26, maximum power (ramping) is set automatically by controller setting (SV) and the efficiency of control is improved. The combination plays another role; it effectively saves a total load when several thyristors are turned ON simultaneously.

**PANEL INFORMATION AND CONTROL TERMINALS**

Terminal No.	Terminal Code		
	Voltage / Current	Contact	
Upper terminal	1	C 1	C 1
	3	C 2	C 2
	5	R 1	R 1
	7	R 2	R 2
	9	R 3	R 3
	11	-	L 2
	13	M	L 3
15	AL1	AL1	
17	AL2	AL2	
Phase Control		Cycle	
Lower terminal	2	S 1	MO1
	4	S 2	MO2
	6	CL1	-
	8	CL2	-
	10	CL3	-
	12	AP1	AP1
14	AP2	AP2	
16	HB1	HB1	
18	HB2	HB2	



• **Adjusters**

- Power adjuster (standard)
- Soft start time adjuster (standard)
- Heater break alarm setting device (option)
- Automatic power adjuster (option)

• **Monitor Lamps**

- P.L.: Power supply and output indication
- O.C.: Over-current
- Fuse: Burning-out of rapid fuse (option)
- H / B: Heater break alarm (option)
- FAN: Stoppage of cooling fan (standard for 150A or above)

• **Terminal Codes and Functions**

- C1-C2: Control input
- R1-R2-R3: External power (option)
- M: Manual / base adjustment (option)
- L2-L3: Low power and adjustment (option)
- AL1-AL2: Alarm output common to over-current, FAN, FUSE
- S1-S2: External sequence signal for limiting start power (P)
- MO1-MO2: Operating output indicator (C)
- CL1-CL2-CL3: Current limiting adjuster
- AP1-AP2: Automatic Power signal input
- HB1-HB2: Heater break alarm output

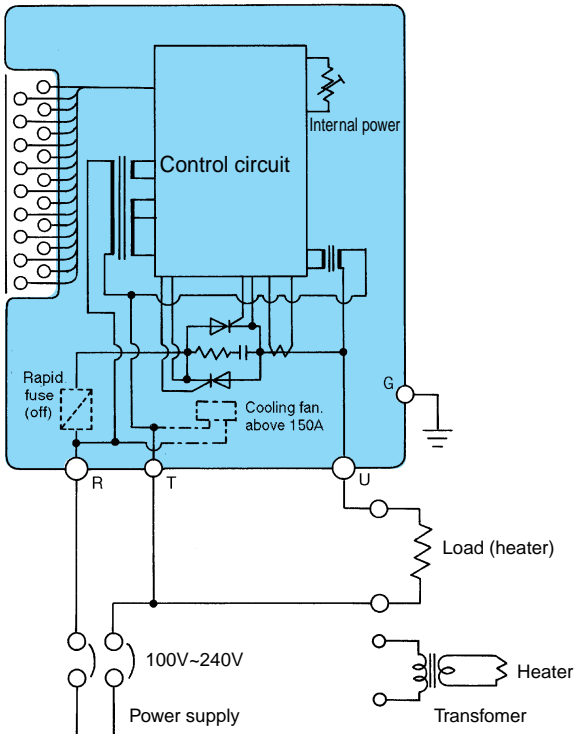
(P): Phase control system  
 (C): Cycle base zero voltage switching system



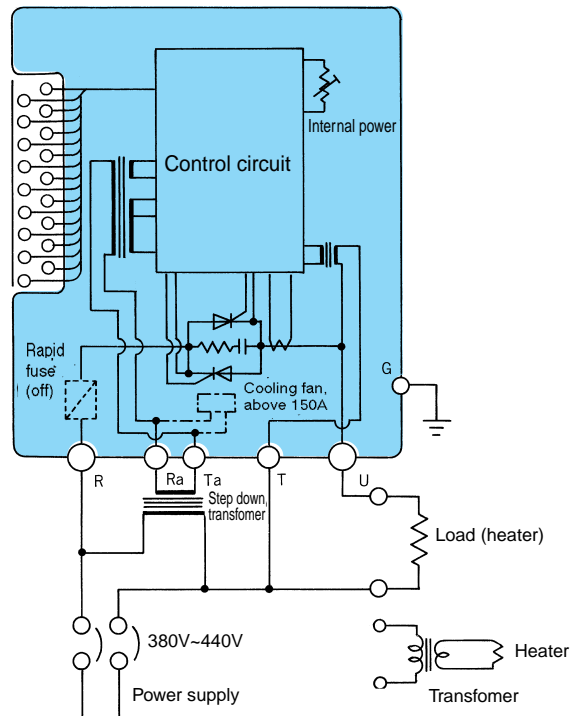
# SHIMADEN SINGLE PHASE POWER REGULATOR

## CIRCUIT BLOCK AND TERMINAL DIAGRAMS

### •100~240V Power Supply



### •380~440V Power Supply



\* Rapid fuse is an optional items. Fan is a provided instrument of above 150A.

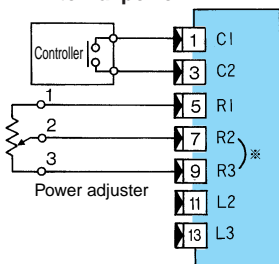
## WIRING OF CONTROL TERMINAL

### •Output Adjusting Function (Upper Terminal)

This function is available by connecting adjuster (rating B 10kΩ 1W), after delivered to the user.

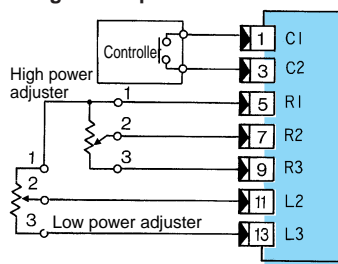
Wiring with contact output type controller

#### External power



- With internal power standard
- To adjust output in case of conduction between input terminals C1 and C2.
- Short circuit R2 and R3 when power adjuster is not used (adjust by internal power adjuster).
- Conduct between C1 and C2: 0~100%

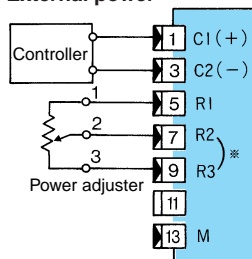
#### High / Low power



- To adjust maximum output for conducted (on) input terminals C1-C2 and to maintain non-conduct (off) output.
- High power: Conduct between C1 and C2 0~100%
- Low power: No conduct between C1 and C2
- High power x Low power

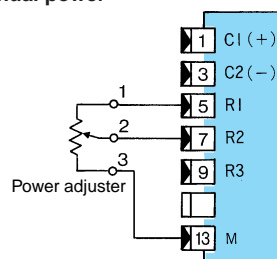
Wiring with voltage / current output type controller

#### External power



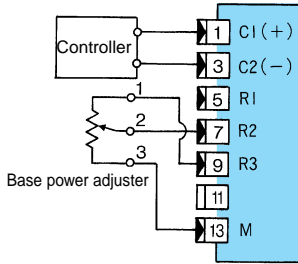
- With internal power standard
- Short circuit R2 and R3 when power adjuster is not used (adjust by internal power).
- Input of 100%: 0~100%

#### Manual power



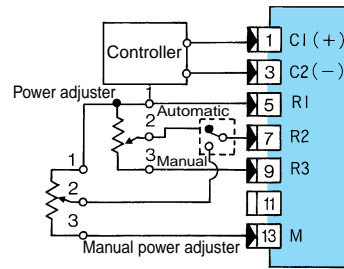
- To adjust power manually.

**Base(residual) power**



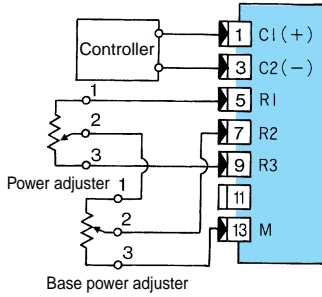
- To keep output steady when the control signal is at 0%.
- The maximum power is adjusted by internal power adjuster.
- Input of 0%: 0~100%

**External power + Manual power (Automatic / Manual)**



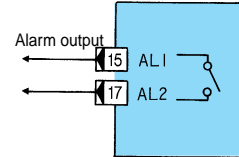
- External contact switches automatic / manual for power adjusting selection of automatic and manual operations.
- Please prepare the automatic / manual switch.

**External power + Base(residual) power**



- To adjust maximum output and to maintain some parts of output 0% control signal.

**Alarm circuit**

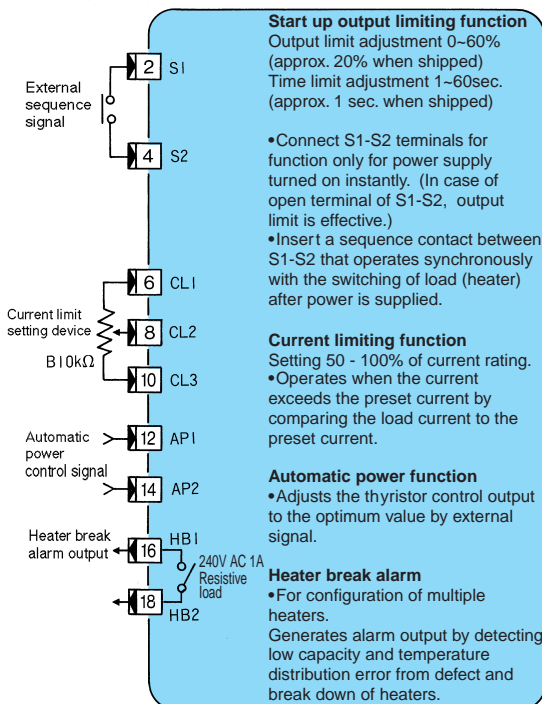


- Alarm on Conduct between AL1 and AL2.
- Operation Over-current protection circuit in operation. Fuse burnt out. Cooling fan stopped.

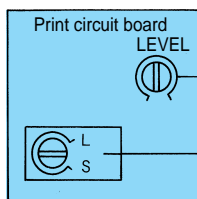
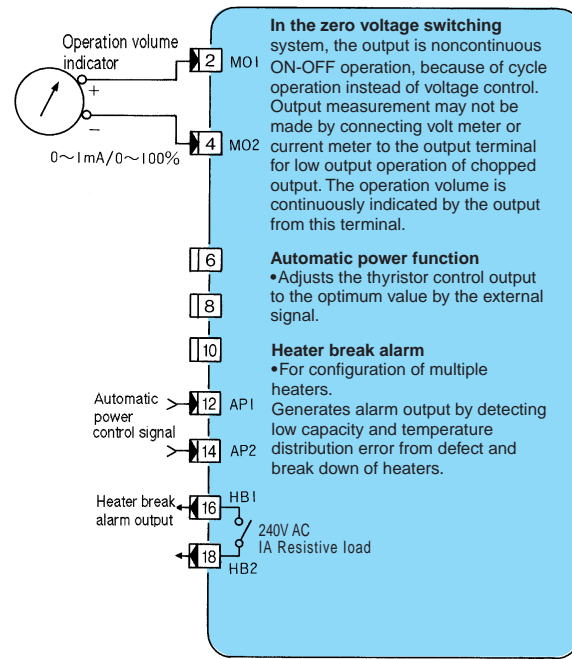
**Additional Function (Option) (Lower Terminal)**

Additional function terminals are all optional items.

**PAC26P (Phase angle control system)**



**PAC26C (Cycle base zero voltage switching)**



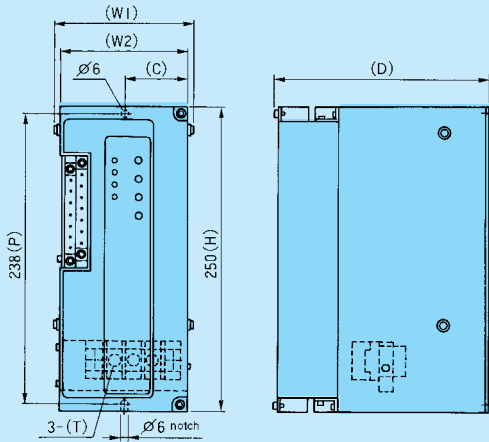
Output limit adjustment 0~ 60% (approx. 20% when shipped)

Time limit adjustment 1~ 60 sec. (approx. 1 sec. when shipped)

# SHIMADEN SINGLE PHASE POWER REGULATOR

## EXTERNAL DIMENSIONS AND WEIGHT

20A, 30A, 45A & 60A (Note: Dimensions of 20A and 30A are those of 45A and 60A, respectively, for 380~440V)



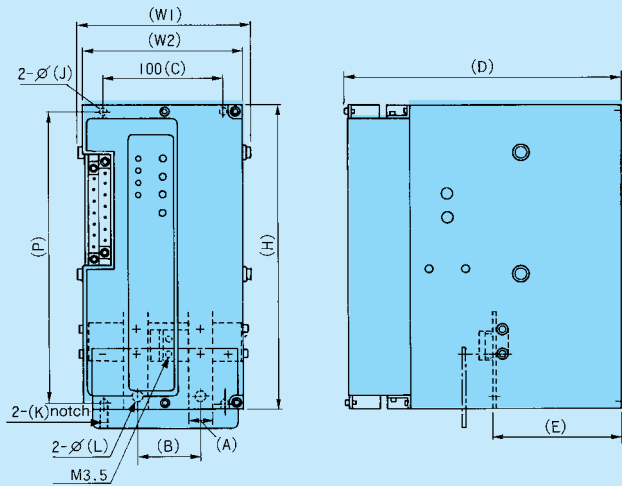
Current	100~240V 20, 30A	100~440V 45, 60A
Code		
W1	87	113
W2	80	105
D	166	176
C	39.5	52.5
T	M4	M6

Note: For 380~440V, 20 and 30A use 45 and 60A cases,

Weight  
20A & 30A: approx. 3.0kg.  
45A & 60A: approx. 3.8kg.

Unit: mm

80A, 100A, 150A & 250A (100~440V)

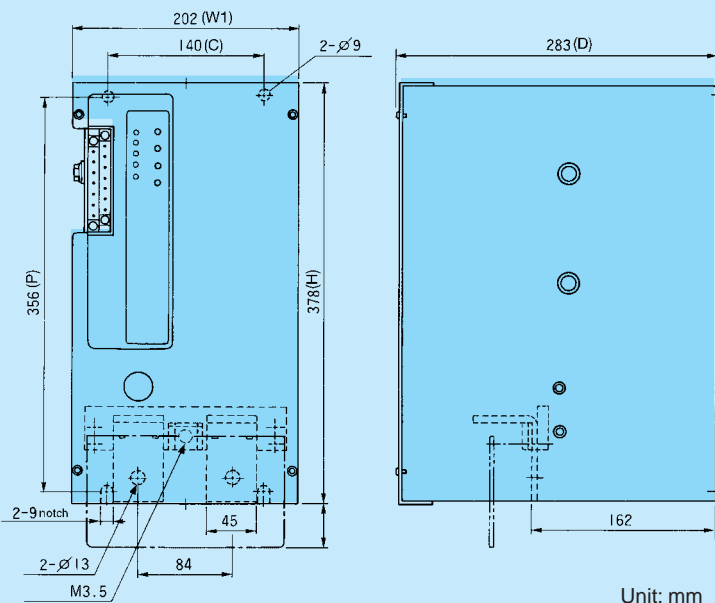


Current	80, 100A	150, 250A
Code		
W1	141	140
W2	130.5	128
H	250	300
D	225	274
P	238	286
A	20	25
B	53	58
J	6	7
K	6	7
L	9	11
E	104	165

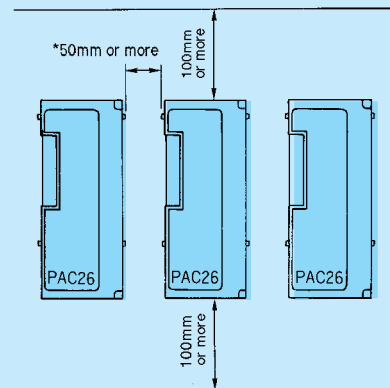
Weight  
80A & 100A: approx. 6.1kg.  
150A & 250A: approx. 8.7kg.

Unit: mm

350A & 450A (100~440V) Weight: approx. 17kg



Unit: mm

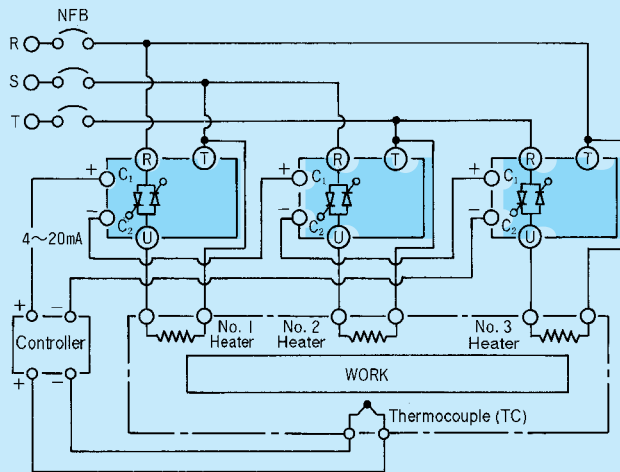


- Wiring should be conducted for ease of maintenance and inspection at the opened door. (\*Avoid adherent installation in order to open cover for wiring.)

APPLICATION EXAMPLES

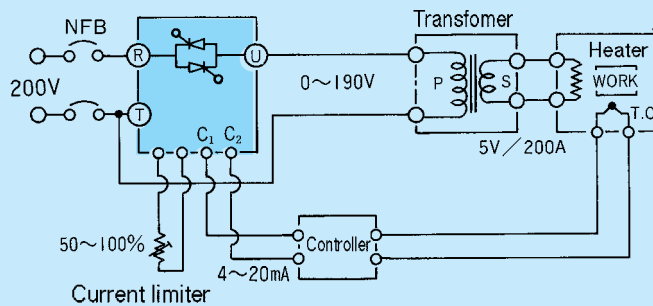
• Application of 1 Controller with 3 PAC26's

(Since receiving impedance is 100Ω, up to 6 PAC26's can be used with one controller.)



No.1~No.3 are controlled by the same control signal from the controller. In order to broaden the soaking temperature band in the furnace, the respective outputs should be differentiated. In such case, the built-in (or external: option) power adjuster serves to make balancing adjustment.

• Application with Transformer (Phase Angle Control System Only)



Transformer is used for: --  
 1. Matching the heater terminal voltage.  
 2. Insulating between the primary side and secondary side.

Applicable Heating Unit:  
 Pure metallic heater, SIC heater

# SHIMADEN SINGLE PHASE POWER REGULATOR

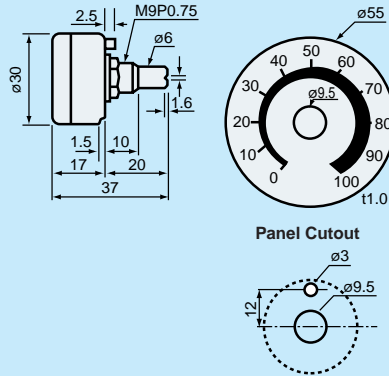
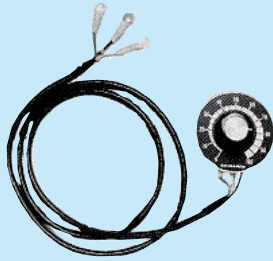
## EXTERNAL POWER ADJUSTER & OPERATING OUTPUT INDICATOR

### • External Power adjuster

Rating  
 Type: RV30YN20S  
 Characteristics / Resistance: B 10k $\Omega$

Lead: Vinyl lead wire 1 meter  
 Panel / Knob: 1 ea  
**• Dimensions**

Names and scale  
 • External power / 0~100%  
 • Manual power / 0~100%  
 • Base power / 0~100%  
 • High / Low power / 0~100%  
 • Current Limiter / 50~100%

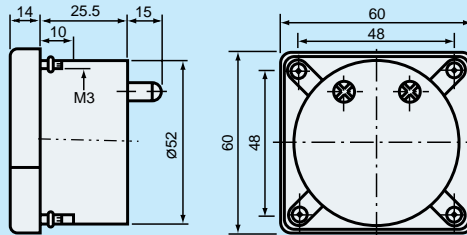


Unit: mm

### • Operating Output Indicator (Zero Voltage Switching System)

The indicator that shows power value in continuous %, as it is improper indication (fluctuated) by showing output voltage and current by conventional panel meters for cycle operation zero voltage switching system.

Range: 0~100%  
 Sensitivity: 1mA full scale  
 Operation volumes is indicated in value of 0~100%

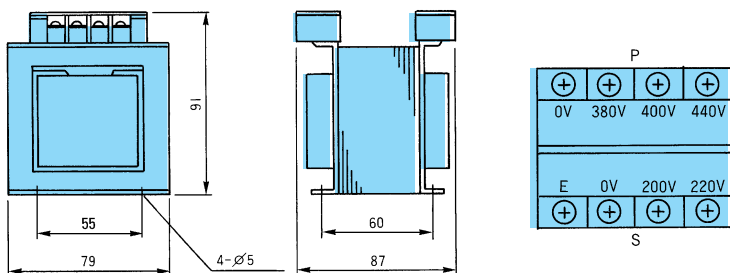


Unit: mm

## 400V STEP DOWN TRANSFORMER

In case of using system with power supply of 380~440V (high voltage), 200V low voltage power supply is required to provide electronic circuit and fan driving. No 200V power is supplied to the installed area, use the power supply (380~440V) after conversion down to 200V.

Transformer type: H40 - 20R25  
 Primary (input) voltage: 380V, 400V, 440V, 50 / 60Hz  
 Secondary (output) voltage: 200V, 220V (200V terminal for PAC26)  
 Capacity: 50VA (20A~100A / 2 sets, 150A~450A / 1 set of thyristor can be connected.)  
 Voltage endurance: Between primary terminal and secondary terminal: 2500V AC 1 minute



Unit: mm

 **Warning**

- This product is designed for controlling the power of a heater or similar equipment used in a general industrial facilities. (It is not to be used for any purpose which regulates the prevention of serious effects on human life or safety.)

 **Caution**

- If the possibility of loss or damage to your system or property as a result of failure of any part of the process exists, proper safety measures must be made before the instrument is put into use so as to prevent the occurrence of trouble.



ISO 9001

(The contents of this brochure are subject to change without notice.)

Temperature and Humidity Control Specialists

**SHIMADEN CO., LTD.**

Head Office: 2-30-10 Kitamachi, Nerima-Ku, Tokyo 179-0081 Japan

Phone: +81-3-3931-7891 Fax: +81-3-3931-3089

E-MAIL: exp-dept@shimaden.co.jp URL: <http://www.shimaden.co.jp>