STABLE & SPEEDY CONTROL OF GENERATOR POWER FACTOR
ASP-96

■ APPLICATION

This product controls power factor of synchronous generator constantly in parallel operation with system.
Power factor of generator can be improved by constant power factor even though load fluctuated.

■ FEATURES

► Space saving is achieved with light-weight, small-size.
Mounting area is reduced to approx. 1/6 compared with our conventional product (ASP-101).

► Easy to see display and simple setting.
Power factor control state and power factor current value can be easily displayed by panel mounting. Setting value can be changed easily from front with cover being open.

► Hunting prevention of control
Hunting is prevented and control is performed quickly as pulse width is automatically set by deviation.

■ STANDARD SPECIFICATION

ITEM	CONTENTS	SPECIFICATION
AC input	3-phase 3-wire	AC110V, 50/60Hz 5VA Voltage input: 0.5VA; Current input: 0.1VA
Control input	Power factor control start (START)	Non-voltage contact (1a); Switching voltage/current DC12V, 10mA
	Remote start (REMOTE)	
	Remote input (REMOTE INPUT)	DC4-12-20mA/LEAD0.5-1-LAG0.5 (But, limit at LEAD0.9, LAG0.7, the setting range is LEAD0.9-1-LAG0.7.)
Control output	Voltage increase signal (60R) Voltage decrease signal (60L) Alarm signal (ALARM)	Photo MOS. FET relay output MAX. DC100V, 100mA
Power supply	AUX. SUPPLR	AC85-127V, 50/60Hz, 6VA or DC80-143V, 6W
Display LED	POWER	Green LED
	Power factor within neutral zone signal (Δφ)	Green LED
	During power factor control signal (START)	Green LED
	During remote control signal (REMOTE)	Green LED
	Voltage increase signal (60R)	Red Green] 2-color LED
	Voltage decrease signal (60L)	
	Alarm signal (ALARM)	Red
	Power factor measuring value (current value)	LEAD0.000-1.000-LAG0.000 4digits (green)
Others	Setting	Rotary code switch (0-F)×7

ITEM		SPECIFICATION
Tolerance	Power factor error *1	±13°
	Pulse width	±10%±0.1s
	Pulse period	±10%±0.1s
Operating temperature/humidity		0-50℃, 5-90%RH (no condensation)
Storage humidity range		-10-+70℃
External color/mass		Munsell N1.5(black), 1kg or less

*1.when control range is LEAD0.9-1-LAG0.7, or load power ≧ 10%(kW)

■ SETTING (Rotary code switch 1-7)

SETTING ITEM	MARK	INITIAL VALUE	SETTING RANGE
Power factor control value	Cos φ	LAG0.85	LEAD0.90-1.00-LAG0.70 (0.01step)
Power factor neutral zone*1	Δφ	3 °	2 ° - 10 ° (1 ° step)
Neutral zone switching power value:1kW(110V,5A)=100%	CHW	25%	5%-45% (5% step)
Control cut power value: 1kW(110V,5A)=100%	CTW	5%	1%-10% (1% step)
Min. pulse width	P_{WL}	0.3s	0.1s-1.0s (0.1s step)
Pulse period	P_T	5s	2s-12s (1s step)
Max. pulse deviation	-	-	60 ° (fixed value)

*1.when control cut power value (CTW) ≦Electric generator connected load power. (Neutral zone switching power value (CHW), power factor neutral zone is Δφ ×2.

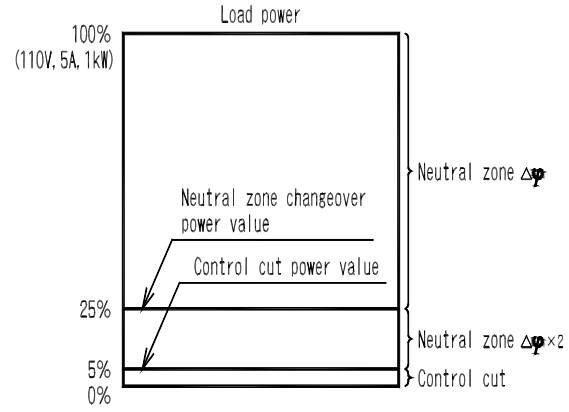
■ FUNCTION

► Remote operation (REMOTE) of control power factor

Power factor setting value can be changed from distance by analog signal in proportion to power factor setting value. Analog signal is equivalent to LEAD 0.9-1-LAG0.7/ DC10.4-12-16.8mA.

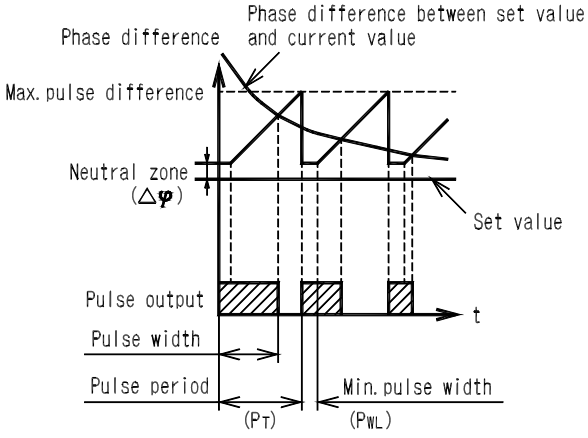
► Neutral zone automatic changeover

Neutral zone can be changed over by generator load power in order to make a stable control. Also control can be stopped when power is small.



► Pulse output deviation control

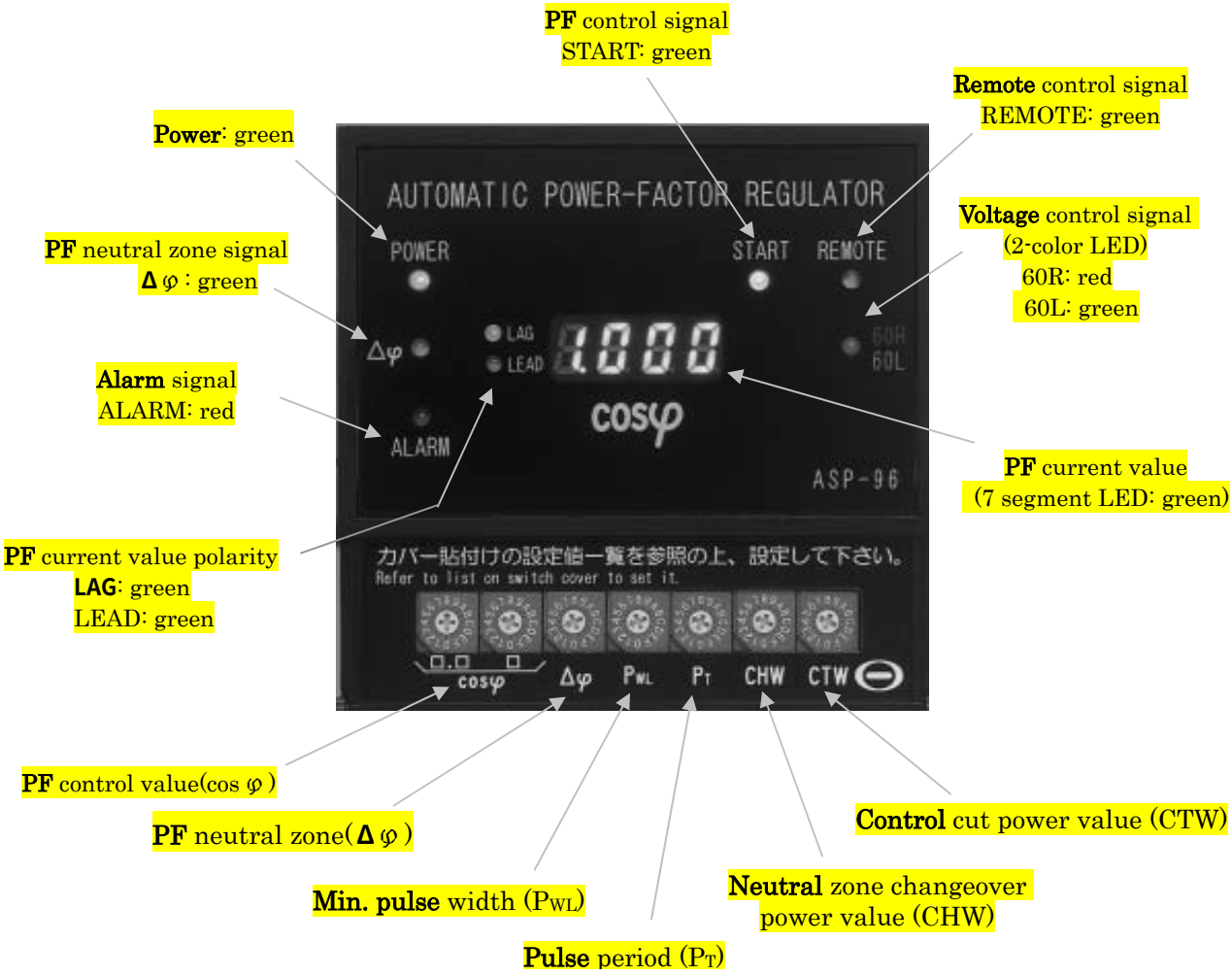
Pulse width of control output pulse can be controlled by phase difference of setting value and current value to make a speedy control.



► **Voltage control system failure detection function**

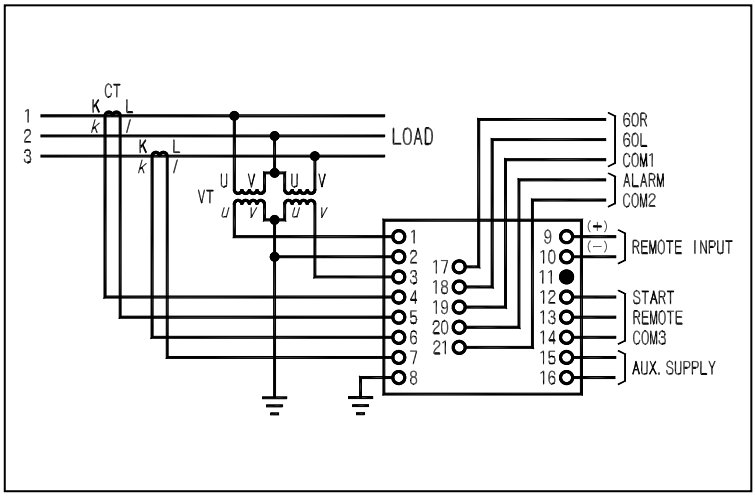
When voltage control signal (60R, L) outputs in the same direction for 60 times continuously, but it does not reach to the aimed power facto value, ALARM outputs for voltage control system abnormality.

■ NAME of EACH PART

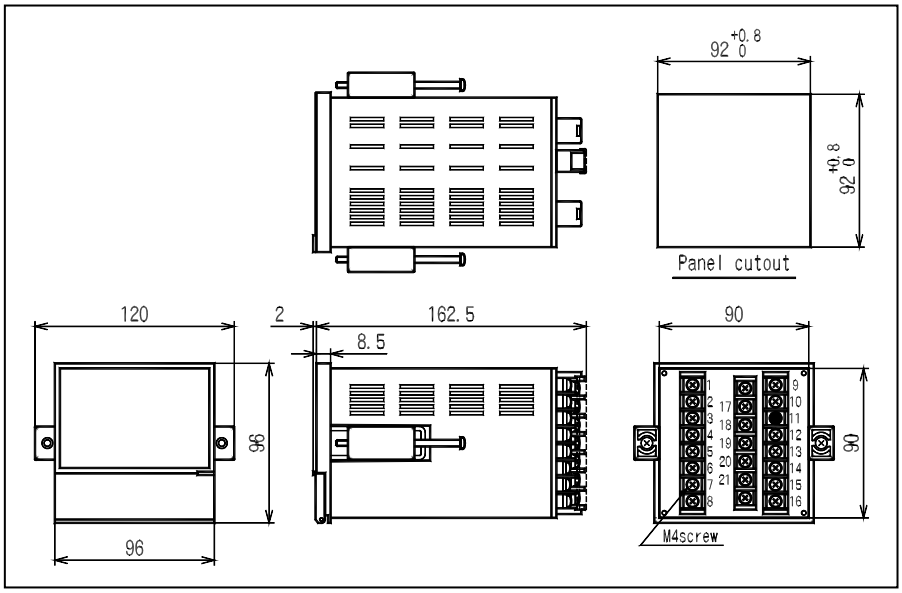


PF=Power factor

■ CONNECTION DIAGRAM



■ DIMENSIONS



■ PURCHASE SPECIFICATIONS

(1) TYPE (2) INPUT VOLTAGE (3) INPUT CURRENT

Note: The product and the test report are shipped in default setting.
Change to your desired settings according to the user's manual before use.