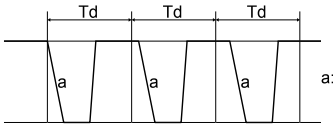
200 W Type Specifications

200 W type		PAV 10-20	PAV 20-10	PAV 36-6	PAV 60-3.5	PAV 100-2	PAV 160-1.3	PAV 320-0.65	PAV 650-0.32
Output									
Rated output voltage *1		10 V	20 V	36 V	60 V	100 V	160 V	320 V	650 V
Rated output current *2		20 A	10 A	6 A	3.5 A	2 A	1.3 A	0.65 A	0.32 A
Rated output power		200 W	200 W	216 W	210 W	200 W	208 W	208 W	208 W
AC input									
Nominal input rating		100 Vac to 240 Vac continuous input, 50 Hz to 60 Hz, single phase							
Input voltage range		85 Vac to 265 Vac							
Input frequency range		47 Hz to 63 Hz							
Input current (typ) *3 (100 Vac/200 Vac)		2.65 A/1.31 A	2.62 A/1.29 A	2.76 A/1.37 A	2.69 A/1.33A	2.55 A/1.26 A	2.64 A/1.30 A		
Power factor (typ) (100 Vac/200 Vac, at the rated output power)		0.99 / 0.98							
Efficiency (typ) *3		76% / 77.5%	77% / 79%	79% / 80.5%	79% / 80.5%	79% / 81%	79% / 81%		
Inrush current (100 Vac/200 Vac) *4		15 A / 30 A or less					25 A / 25 A or less		
Constant voltage mode									
Maximum line regulation *5 (for the rated output voltage)		0.01% + 2 mV					0.01%		
Maximum load regulation *6 (for the rated output voltage)									
Ripple noise *7	20 MHz, p-p	50 mV	50 mV	50 mV	50 mV	80 mV	100 mV	150 mV	250 mV
	5 Hz to 1 MHz, rms	5 mV	6 mV	6 mV	7 mV	8 mV	10 mV	25 mV	60 mV
Temperature coefficient		30 PPM /°C (after a 30 minute warm-up, for the rated output voltage)							
Aging drift *8 (for the rated output voltage)		0.02%							
Initial drift *9 (for the rated output voltage)		0.05% + 2 mV					0.05%		
Maximum remote sensing compensation voltage (single line (positive or negative))		1 V	1 V	2 V	3 V	5 V	5 V		
Rise time *10		15 ms	30 ms	30 ms	50 ms	50 ms	110 ms	170 ms	170 ms
Fall time	At full load *10	12 ms	25 ms	30 ms	40 ms	50 ms	180 ms	270 ms	270 ms
	Td (typ) *11	210 ms	250 ms	320 ms	380 ms	1200 ms	---		
	No load a *12	40 ms	65 ms	85 ms	100 ms	250 ms	---		
	No load b *13	200 ms	200 ms	290 ms	310 ms	1100 ms	2000 ms	2500 ms	3000 ms
Transient response time *14		1 ms or less					2 ms or less		
Output hold time (typ) *15		15 ms	16 ms				16 ms	16 ms	15 ms
Constant current mode									
Maximum line regulation *5 (at the rated output current)		0.01% + 2 mA					0.02%		
Maximum load regulation *16 (at the rated output current)		0.01% + 5 mA					0.09%		0.15%
Change in the load due to the temperature drift of internal components (at the rated output current)		0.05% or less (for 30 minutes after the load conditions are changed)							
Ripple noise *17 (5 Hz to 1 MHz, rms)		25 mA	15 mA	8 mA	4 mA	3 mA	1.2 mA	0.8 mA	0.5 mA
Temperature coefficient		100 PPM /°C (after a 30 minute warm-up, at the rated output current)							
Aging drift *8 (at the rated output current)		0.05%							
Initial drift *9 (at the rated output current)		0.1%							
Protection functions									
Foldback protection		Turns off the output when the operation switches from constant voltage mode to constant current mode or vice versa. Can be set as necessary.							
Overvoltage protection (OVP)		Inverter shutoff system. Prevents the output voltage from being set higher than the OVP value. Also shuts off the output when an output overvoltage (exceeding the OVP value) occurs.							
Overvoltage protection voltage setting range		0.5 V to 12 V	1 V to 24 V	2 V to 40 V	5 V to 66 V	5 V to 110 V	5 V to 176 V	5 V to 353 V	5 V to 717 V
Undervoltage limit (UVL)		Prevents the output voltage from being set lower than the UVL value. Disabled during external control.							
Undervoltage protection (UVP)		Shuts off the output when the output voltage falls below the UVP value.							
Overheat protection		Shuts off the output before the temperature of the internal components exceeds the safe operation temperature.							

200 W Type Specifications

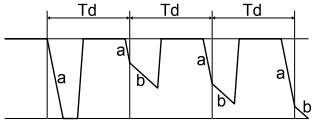
200 W type		PAV 10-20	PAV 20-10	PAV 36-6	PAV 60-3.5	PAV 100-2	PAV 160-1.3	PAV 320-0.65	PAV 650-0.32
Setting and readback (USB, RS232, RS485, optional LAN interface)									
Output voltage setting	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Number of decimal digits	3 digits				2 digits			
	Resolution	Approx. 1/60000 of rated output voltage							
Output current setting	Accuracy *18	0.1% of output current + 0.1% of the rated output current					0.2% of the rated output current		
	Number of decimal digits	3 digits		4 digits					
	Resolution	Approx. 1/60000 of rated output current							
Output voltage readback	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Resolution	Approx. 1/60000 of rated output voltage							
Output current readback	Accuracy *18	0.1% of output current + 0.3% of the rated output current							
	Resolution	Approx. 1/60000 of rated output current							
Front panel									
Control function		● Separate knobs (encoders) for setting the output voltage and output current (setting resolution switchable). ● Knobs (encoders) for setting OVP,UVP,and UVL. ● Protection functions (OVP, UVP, UVL, foldback) ● Output shutoff function (output on/off control, shutdown) ● Communication functions: Standard equipped with USB, RS232, RS485. LAN optional. ● Baudrate, address setting ● External control: Configuration using external voltage (5 V or 10 V) or external resistance (5 kΩ or 10 kΩ), output voltage/current monitor output (5 V or 10 V), output on/off, front panel operation lock							
Output voltage display	Accuracy	0.5% of the rated output voltage ± 1 count							
	Number of decimal digits	2 digits				1 digit			
Output current display	Accuracy	0.5% of the rated output current ± 1 count							
	Number of decimal digits	2 digits		3 digits					
LED display		Green: FINE, MENU, SET, ALARM, REM, OUTPUT, CV, CC Red: ALARM (OVP, UVP, OTP, FOLD, AC FAIL)							
Setting keys		FINE, MENU, SET, ALARM, REM, OUTPUT							

*1. The minimum voltage is 0.1 % of the rated output voltage.
*2. The minimum current is 0.2 % of the rated output current.
*3. Input voltage 100 Vac/200 Vac, at the rated output power, ambient temperature 25 °C If the LAN option is built in, the efficiency decreases by 0.5 % and the input current increases by 0.5 %.
*4. Excludes input surge current (duration 0.2 ms or less) applied to the built-in noise filter section.
*5. 85 Vac to 132 Vac or 170 Vac to 265 Vac, fixed load
*6. With the input voltage held constant, the sensing point was measured using remote sensing from no load to full load.
*7. Models with rated output voltages from 10 V to 100 V were measured using an RC-9131 A 1:1 probe that conforms to the JEITA specifications. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*8. When at least 8 hours has passed after a 30 minute warm-up with the input voltage, load, and ambient temperature held constant
*9. For 30 minutes after turning on the power with the input voltage, load, and ambient temperature held constant
*10. Between 10 % and 90 % of the rated resistive load and rated output voltage
*11. If the output voltage is repeatedly decreased, Td is the minimum duration from a given voltage drop to the next voltage drop.
*12. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is longer than Td.



a: Slope of the fall time of a at no load

*13. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is shorter than Td.



a: Slope of the fall time of a at no load
b: Slope of the fall time of b at no load

*14. The amount of time required for the output voltage to return to a value within 0.5 % of the rated output voltage. The change in the load current is 10 % to 90 % of the rating. The output voltage is between 10 % and 100 % of the rating. During local sensing.
*15. At the rated output power
*16. The value when the output voltage is changed from the lower limit to the rated voltage in constant current mode with the input voltage held constant
*17. For models with a 10 V rated output voltage, this is the value for when the output voltage is 2 V to 10 V at the rated output current. For other models, this is the value for when the output voltage is 10 % to 100 % of the rating at the rated output current. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*18. In output current control, the current, linearity, and monitor accuracies do not include the load variation caused by initial drift and temperature drift of internal components.

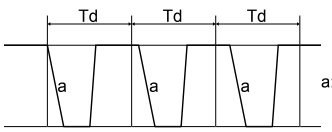
400 W Type Specifications

400 W type		PAV 10-40	PAV 20-20	PAV 36-12	PAV 60-7	PAV 100-4	PAV 160-2.6	PAV 320-1.3	PAV 650-0.64
Output									
Rated output voltage *1		10 V	20 V	36 V	60 V	100 V	160 V	320 V	650 V
Rated output current *2		40 A	20 A	12 A	7 A	4 A	2.6 A	1.3 A	0.64 A
Rated output power		400 W	400 W	432 W	420 W	400 W	416 W	416 W	416 W
AC input									
Nominal input rating		100 Vac to 240 Vac continuous input, 50 Hz to 60 Hz, single phase							
Input voltage range		85 Vac to 265 Vac							
Input frequency range		47 Hz to 63 Hz							
Input current (typ) *3 (100 Vac/200 Vac)		5.05 A/2.47 A	4.98 A/2.45 A	5.25 A/2.57 A	5.10 A/2.50 A	4.80 A/2.37 A	5 A / 2.44 A		
Power factor (typ) (100 Vac/200 Vac, at the rated output power)		0.99							
Efficiency (typ) *3		80% / 82%	81% / 83%	83% / 85%	83% / 85%	84% / 88%	84% / 86%		
Inrush current (100 Vac/200 Vac) *4		25 A / 25 A or less					25 A / 25 A or less		
Constant voltage mode									
Maximum line regulation *5 (for the rated output voltage)		0.01% + 2mV					0.01%		
Maximum load regulation *6 (for the rated output voltage)									
Ripple noise *7	20 MHz, p-p	50 mV	50 mV	50 mV	50 mV	80 mV	100 mV	150 mV	250 mV
	5 Hz to 1 MHz, rms	5 mV	6 mV	6 mV	7 mV	8 mV	10 mV	25 mV	60 mV
Temperature coefficient		30 PPM /°C (after a 30 minute warm-up, for the rated output voltage)							
Aging drift *8 (for the rated output voltage)		0.02%							
Initial drift *9 (for the rated output voltage)		0.05% + 2 mV					0.05%		
Maximum remote sensing compensation voltage (single line (positive or negative))		1 V	1 V	2 V	3 V	5V	5 V		
Rise time *10		15 ms	30 ms	30 ms	50 ms	50 ms	80 ms	150 ms	150 ms
Fall time	At full load *10	10 ms	10 ms	15 ms	30 ms	50 ms	100 ms	150 ms	150 ms
	Td (typ) *11	210 ms	250 ms	320 ms	380 ms	1200 ms	---		
	No load a *12	40 ms	65 ms	85 ms	100 ms	250 ms	---		
	No load b *13	200 ms	200 ms	290 ms	310 ms	1100 ms	2000 ms	2500 ms	3000 ms
Transient response time *14		1 ms or less					2 ms or less		
Output hold time (typ) *15		15 ms	16 ms				16 ms		15 ms
Constant current mode									
Maximum line regulation *5 (at the rated output current)		0.01% + 2 mA					0.02%		
Maximum load regulation *16 (at the rated output current)		0.01% + 5 mA					0.09%		
Change in the load due to the temperature drift of internal components (at the rated output current)		0.05% or less (for 30 minutes after the load conditions are changed)							
Ripple noise *17 (5 Hz to 1 MHz, rms)		70 mA	40 mA	15 mA	8 mA	3 mA	1.5 mA	1 mA	0.6 mA
Temperature coefficient		100 PPM /°C (after a 30 minute warm-up, at the rated output current)							
Aging drift *8 (at the rated output current)		0.05%							
Initial drift *9 (at the rated output current)		0.1%							
Protection functions									
Foldback protection		Turns off the output when the operation switches from constant voltage mode to constant current mode or vice versa. Can be set as necessary.							
Overvoltage protection (OVP)		Inverter shutoff system. Prevents the output voltage from being set higher than the OVP value. Also shuts off the output when an output overvoltage (exceeding the OVP value) occurs.							
Overvoltage protection voltage setting range		0.5 V to 12 V	1 V to 24 V	2 V to 40 V	5 V to 66 V	5 V to 110 V	5 V to 176 V	5 V to 353 V	5 V to 717 V
Undervoltage limit (UVL)		Prevents the output voltage from being set lower than the UVL value. Disabled during external control.							
Undervoltage protection (UVP)		Shuts off the output when the output voltage falls below the UVP value.							
Overheat protection		Shuts off the output before the temperature of the internal components exceeds the safe operation temperature.							

400 W Type Specifications

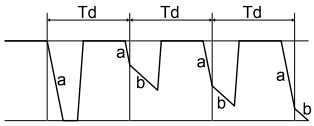
400 W type		PAV 10-40	PAV 20-20	PAV 36-12	PAV 60-7	PAV 100-4	PAV 160-2.6	PAV 320-1.3	PAV 650-0.64
Setting and readback (USB, RS232, RS485, optional LAN interface)									
Output voltage setting	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Number of decimal digits	3 digits				2 digits			
	Resolution	Approx. 1/60000 of rated output voltage							
Output current setting	Accuracy *18	0.1% of output current + 0.1% of the rated output current					0.2% of the rated output current		
	Number of decimal digits	3 digits				4 digits			
	Resolution	Approx. 1/60000 of rated output current							
Output voltage readback	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Resolution	Approx. 1/60000 of rated output voltage							
Output current readback	Accuracy *18	0.1% of output current + 0.3% of the rated output current							
	Resolution	Approx. 1/60000 of rated output current							
Front panel									
Control function		● Separate knobs (encoders) for setting the output voltage and output current (setting resolution switchable). ● Knobs (encoders) for setting OVP,UVP,and UVL. ● Protection functions (OVP, UVP, UVL, foldback) ● Output shutoff function (output on/off control, shutdown) ● Communication functions: Standard equipped with USB, RS232, RS485. LAN optional. ● Baudrate, address setting ● External control: Configuration using external voltage (5 V or 10 V) or external resistance (5 kΩ or 10 kΩ), output voltage/current monitor output (5 V or 10 V), output on/off, front panel operation lock							
Output voltage display	Accuracy	0.5% of the rated output voltage ± 1 count							
	Number of decimal digits	2 digits				1 digit			
Output current display	Accuracy	0.5% of the rated output current ± 1 count							
	Number of decimal digits	2 digits			3 digits				
LED display		Green: FINE, MENU, SET, ALARM, REM, OUTPUT, CV, CC Red: ALARM (OVP, UVP, OTP, FOLD, AC FAIL)							
Setting keys		FINE, MENU, SET, ALARM, REM, OUTPUT							

*1. The minimum voltage is 0.1 % of the rated output voltage.
*2. The minimum current is 0.2 % of the rated output current.
*3. Input voltage 100 Vac/200 Vac, at the rated output power, ambient temperature 25 °C
If the LAN option is built in, the efficiency decreases by 0.5 % and the input current increases by 0.5 %.
*4. Excludes input surge current (duration 0.2 ms or less) applied to the built-in noise filter section.
*5. 85 Vac to 132 Vac or 170 Vac to 265 Vac, fixed load
*6. With the input voltage held constant, the sensing point was measured using remote sensing from no load to full load.
*7. Models with rated output voltages from 10 V to 100 V were measured using an RC-9131 A 1:1 probe that conforms to the JEITA specifications. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*8. When at least 8 hours has passed after a 30 minute warm-up with the input voltage, load, and ambient temperature held constant
*9. For 30 minutes after turning on the power with the input voltage, load, and ambient temperature held constant
*10. Between 10 % and 90 % of the rated resistive load and rated output voltage
*11. If the output voltage is repeatedly decreased, Td is the minimum duration from a given voltage drop to the next voltage drop.
*12. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is longer than Td.



a: Slope of the fall time of a at no load

*13. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is shorter than Td.



a: Slope of the fall time of a at no load
b: Slope of the fall time of b at no load

*14. The amount of time required for the output voltage to return to a value within 0.5 % of the rated output voltage. The change in the load current is 10 % to 90 % of the rating. The output voltage is between 10 % and 100 % of the rating. During local sensing.
*15. At the rated output power
*16. The value when the output voltage is changed from the lower limit to the rated voltage in constant current mode with the input voltage held constant
*17. For models with a 10 V rated output voltage, this is the value for when the output voltage is 2 V to 10 V at the rated output current. For other models, this is the value for when the output voltage is 10 % to 100 % of the rating at the rated output current. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*18. In output current control, the current, linearity, and monitor accuracies do not include the load variation caused by initial drift and temperature drift of internal components.

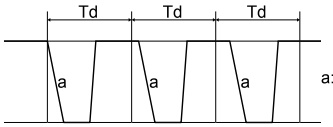
600 W Type Specifications

600 W type		PAV 10-60	PAV 20-30	PAV 36-18	PAV 60-10	PAV 100-6	PAV 160-4	PAV 320-2	PAV 650-1
Output									
Rated output voltage *1		10 V	20 V	36 V	60 V	100 V	160 V	320 V	650 V
Rated output current *2		60 A	30 A	18 A	10 A	6 A	4 A	2 A	1 A
Rated output power		600 W	600 W	648 W	600 W	600 W	640 W	640 W	650 W
AC input									
Nominal input rating		100 Vac to 240 Vac continuous input, 50 Hz to 60 Hz, single phase							
Input voltage range		85 Vac to 265 Vac							
Input frequency range		47 Hz to 63 Hz							
Input current (typ) *3 (100 Vac/200 Vac)		7.48 A/3.69 A	7.22 A/3.56 A	7.70 A/3.80 A	7.13 A/3.52 A	7.13 A/3.52 A	7.47 A / 3.69 A		7.59 A/3.75 A
Power factor (typ) (100 Vac/200 Vac, at the rated output power)		0.99 / 0.98							
Efficiency (typ) *3		81% / 83%	84% / 86%	85% / 87%	85% / 87%	85% / 87%	86.5% / 88.5%	87% / 88.5%	86.5% / 88.5%
Inrush current (100 Vac/200 Vac) *4		30 A / 30 A or less					30 A / 30 A or less		
Constant voltage mode									
Maximum line regulation *5 (for the rated output voltage)		0.01% + 2 mV					0.01%		
Maximum load regulation *6 (for the rated output voltage)									
Ripple noise *7	20 MHz, p-p	50 mV	50 mV	50 mV	50 mV	80 mV	100 mV	150 mV	250 mV
	5 Hz to 1 MHz, rms	5 mV	5 mV	5 mV	12 mV	15 mV	10 mV	30 mV	60 mV
Temperature coefficient		30 PPM /°C (after a 30 minute warm-up, for the rated output voltage)							
Aging drift *8 (for the rated output voltage)		0.05%					0.02%		
Initial drift *9 (for the rated output voltage)		0.05% + 2 mV					0.05%		
Maximum remote sensing compensation voltage (single line (positive or negative))		1 V	1 V	2 V	3 V	5 V	5 V		
Rise time *10		50 ms	50 ms	50 ms	50 ms	100 ms	55 ms	75 ms	75 ms
Fall time	At full load *10	25 ms	25 ms	25 ms	25 ms	80 ms	65 ms	85 ms	85 ms
	Td (typ) *11	285 ms	425 ms	450 ms	570 ms	1370 ms	---		
	No load a *12	65 ms	110 ms	155 ms	175 ms	375 ms	---		
	No load b *13	280 ms	470 ms	470 ms	500 ms	1200 ms	2000 ms	2500 ms	3000 ms
Transient response time *14		1 ms or less					2 ms or less		
Output hold time (typ) *15		15 ms		20 ms			16 ms		14 ms
Constant current mode									
Maximum line regulation *5 (at the rated output current)		0.01% + 2 mA					0.02%		
Maximum load regulation *16 (at the rated output current)		0.01% + 5 mA					0.09%		
Change in the load due to the temperature drift of internal components (at the rated output current)		0.15% or less (for 30 minutes after the load conditions are changed)					0.05% or less (for 30 minutes after the load conditions are changed)		
Ripple noise *17 (5 Hz to 1 MHz, rms)		150 mA	75 mA	25 mA	8 mA	5 mA	2 mA	1.5 mA	1 mA
Temperature coefficient		100 PPM /°C (after a 30 minute warm-up, at the rated output current)							
Aging drift *8 (at the rated output current)		0.05%							
Initial drift *9 (at the rated output current)		0.3%	0.15%		0.1%		0.1%		
Protection functions									
Foldback protection		Turns off the output when the operation switches from constant voltage mode to constant current mode or vice versa. Can be set as necessary.							
Overvoltage protection (OVP)		Inverter shutoff system. Prevents the output voltage from being set higher than the OVP value. Also shuts off the output when an output overvoltage (exceeding the OVP value) occurs.							
Overvoltage protection voltage setting range		0.5 V to 12 V	1 V to 24 V	2 V to 40 V	5 V to 66 V	5 V to 110 V	5 V to 176 V	5 V to 353 V	5 V to 717 V
Undervoltage limit (UVL)		Prevents the output voltage from being set lower than the UVL value. Disabled during external control.							
Undervoltage protection (UVP)		Shuts off the output when the output voltage falls below the UVP value.							
Overheat protection		Shuts off the output before the temperature of the internal components exceeds the safe operation temperature.							

600 W Type Specifications

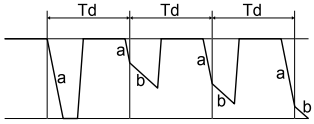
600 W type		PAV 10-60	PAV 20-30	PAV 36-18	PAV 60-10	PAV 100-6	PAV 160-4	PAV 320-2	PAV 650-1
Setting and readback (USB, RS232, RS485, optional LAN interface)									
Output voltage setting	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Number of decimal digits	3 digits				2 digits			
	Resolution	Approx. 1/60000 of rated output voltage							
Output current setting	Accuracy *18	0.1% of output current + 0.1% of the rated output current					0.2% of the rated output current		
	Number of decimal digits	3 digits				4 digits			
	Resolution	Approx. 1/60000 of rated output current							
Output voltage readback	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Resolution	Approx. 1/60000 of rated output voltage							
Output current readback	Accuracy *18	0.1% of output current + 0.3% of the rated output current							
	Resolution	Approx. 1/60000 of rated output current							
Front panel									
Control function		● Separate knobs (encoders) for setting the output voltage and output current (setting resolution switchable). ● Knobs (encoders) for setting OVP,UVP,and UVL. ● Protection functions (OVP, UVP, UVL, foldback) ● Output shutoff function (output on/off control, shutdown) ● Communication functions: Standard equipped with USB, RS232, RS485. LAN optional. ● Baudrate, address setting ● External control: Configuration using external voltage (5 V or 10 V) or external resistance (5 kΩ or 10 kΩ), output voltage/current monitor output (5 V or 10 V), output on/off, front panel operation lock							
Output voltage display	Accuracy	0.5% of the rated output voltage ± 1 count							
	Number of decimal digits	2 digits				1 digit			
Output current display	Accuracy	0.5% of the rated output current ± 1 count							
	Number of decimal digits	2 digits				3 digits			
LED display		Green: FINE, MENU, SET, ALARM, REM, OUTPUT, CV, CC Red: ALARM (OVP, UVP, OTP, FOLD, AC FAIL)							
Setting keys		FINE, MENU, SET, ALARM, REM, OUTPUT							

*1. The minimum voltage is 0.1 % of the rated output voltage.
*2. The minimum current is 0.2 % of the rated output current.
*3. Input voltage 100 Vac/200 Vac, at the rated output power, ambient temperature 25 °C If the LAN option is built in, the efficiency decreases by 0.5 % and the input current increases by 0.5 %.
*4. Excludes input surge current (duration 0.2 ms or less) applied to the built-in noise filter section.
*5. 85 Vac to 132 Vac or 170 Vac to 265 Vac, fixed load
*6. With the input voltage held constant, the sensing point was measured using remote sensing from no load to full load.
*7. Models with rated output voltages from 10 V to 100 V were measured using an RC-9131 A 1:1 probe that conforms to the JEITA specifications. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*8. When at least 8 hours has passed after a 30 minute warm-up with the input voltage, load, and ambient temperature held constant
*9. For 30 minutes after turning on the power with the input voltage, load, and ambient temperature held constant
*10. Between 10 % and 90 % of the rated resistive load and rated output voltage
*11. If the output voltage is repeatedly decreased, Td is the minimum duration from a given voltage drop to the next voltage drop.
*12. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is longer than Td.



a: Slope of the fall time of a at no load

*13. Duration for the voltage to change from 90 % to 10 % of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is shorter than Td.



a: Slope of the fall time of a at no load
b: Slope of the fall time of b at no load

*14. The amount of time required for the output voltage to return to a value within 0.5 % of the rated output voltage. The change in the load current is 10 % to 90 % of the rating. The output voltage is between 10 % and 100 % of the rating. During local sensing.
*15. At the rated output power
*16. The value when the output voltage is changed from the lower limit to the rated voltage in constant current mode with the input voltage held constant
*17. For models with a 10 V rated output voltage, this is the value for when the output voltage is 2 V to 10 V at the rated output current. For other models, this is the value for when the output voltage is 10 % to 100 % of the rating at the rated output current. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*18. In output current control, the current, linearity, and monitor accuracies do not include the load variation caused by initial drift and temperature drift of internal components.

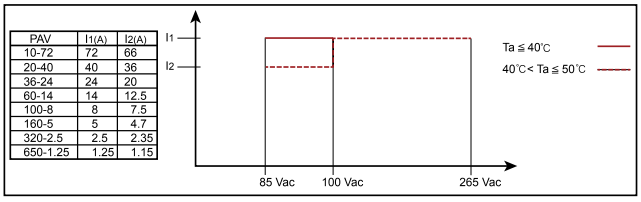
800 W Type Specifications

800 W type		PAV 10-72	PAV 20-40	PAV 36-24	PAV 60-14	PAV 100-8	PAV 160-5	PAV 320-2.5	PAV 650-1.25
Output									
Rated output voltage *1		10 V	20 V	36 V	60 V	100 V	160 V	320 V	650 V
Rated output current *2	100 Vac ≤ Vin*3 Ta*4 ≤ 50°C	72 A	40 A	24 A	14 A	8 A	5 A	2.5 A	1.25 A
	Vin < 100 Vac Ta ≤ 40°C	72 A	40 A	24 A	14 A	8 A	5 A	2.5 A	1.25 A
	Vin < 100 Vac 40°C < Ta ≤ 50°C	66 A	36 A	20 A	12.5 A	7.5 A	4.7 A	2.35 A	1.15 A
Rated output power	100 Vac ≤ Vin Ta ≤ 50°C	720 W	800 W	864 W	840 W	800 W	800 W	800 W	812.5 W
	Vin < 100 Vac Ta ≤ 40°C	720 W	800 W	864 W	840 W	800 W	800 W	800 W	812.5 W
	Vin < 100 Vac 40°C < Ta ≤ 50°C	660 W	720 W	720 W	750 W	750 W	752 W	752 W	747.5 W
AC input									
Nominal input rating		100 Vac to 240 Vac continuous input, 50 Hz to 60 Hz, single phase							
Input voltage range		85 Vac to 265 Vac							
Input frequency range		47 Hz to 63 Hz							
Input current (typ) *5 (100 Vac/200 Vac)		9.00 A/ 4.45 A	9.65 A/ 4.75 A	10.30 A/ 5.10 A	10.00 A/ 4.95 A	9.50 A/ 4.70 A	9.34 A/ 4.61 A	9.34 A/ 4.59 A	9.43 A/ 4.66 A
Power factor (typ) (100 Vac/200 Vac, at the rated output power)		0.99 / 0.98							
Efficiency (typ) *5		81% / 83%	84% / 86%	85% / 87%	85% / 87%	85% / 87%	86.5% / 88.5%	86.5% / 89%	87% / 89%
Inrush current(100 Vac/200 Vac) *6		30 A / 30 A or less							
Constant voltage mode									
Maximum line regulation *7 (for the rated output voltage)		0.01% + 2 mV					0.01%		
Maximum load regulation *8 (for the rated output voltage)									
Ripple noise *9	20 MHz, p-p	50 mV	50 mV	50 mV	60 mV	80 mV	100 mV	150 mV	250 mV
	5 Hz to 1 MHz, rms	5 mV	5 mV	5 mV	12 mV	15 mV	10 mV	30 mV	60 mV
Temperature coefficient		30 PPM /°C (after a 30 minute warm-up, for the rated output voltage)							
Aging drift *10 (for the rated output voltage)		0.05%					0.02%		
Initial drift *11 (for the rated output voltage)		0.05% + 2 mV					0.05%		
Maximum remote sensing compensation voltage (single line (positive or negative))		1 V	1 V	2 V	3 V	5 V	5 V		
Rise time *12		50 ms	50 ms	50 ms	50 ms	100 ms	45 ms	55 ms	55 ms
Fall time	At full load *12	25 ms	25 ms	25 ms	25 ms	80 ms	55 ms	65 ms	65 ms
	Td (typ) *13	285 ms	425 ms	450 ms	570 ms	1370 ms	---		
	No load a *14	65 ms	110 ms	155 ms	175 ms	375 ms	---		
	No load b *15	280 ms	470 ms	470 ms	500 ms	1200 ms	2000 ms	2500 ms	3000 ms
Transient response time *16		1 ms or less					2 ms or less		
Output hold time (typ) *17		10 ms					13 ms	11.5 ms	
Constant current mode									
Maximum line regulation *7 (at the rated output current)		0.01% + 2 mA					0.02%		
Maximum load regulation *18 (at the rated output current)		0.01% + 5 mA					0.09%		
Change in the load due to the temperature drift of internal components (at the rated output current)		0.15% or less	0.1% or less				0.05% or less		
		(for 30 minutes after the load conditions are changed)							
Ripple noise *19 (5 Hz to 1 MHz, rms)		180 mA	100 mA	31 mA	28 mA	12 mA	2 mA	1.5 mA	1 mA
Temperature coefficient		100 PPM /°C (after a 30 minute warm-up, at the rated output current)							
Aging drift *10 (at the rated output current)		0.05%							
Initial drift *11 (at the rated output current)		0.3%					0.1%		
Protection functions									
Foldback protection		Turns off the output when the operation switches from constant voltage mode to constant current mode or vice versa. Can be set as necessary.							
Overvoltage protection (OVP)		Inverter shutoff system. Prevents the output voltage from being set higher than the OVP value. Also shuts off the output when an output overvoltage (exceeding the OVP value) occurs.							
Overvoltage protection voltage setting range		0.5 V to 12 V	1 V to 24 V	2 V to 40 V	5 V to 66 V	5 V to 110 V	5 V to 176 V	5 V to 353 V	5 V to 717 V
Undervoltage limit (UVL)		Prevents the output voltage from being set lower than the UVL value. Disabled during external control.							
Undervoltage protection (UVP)		Shuts off the output when the output voltage falls below the UVP value.							
Overheat protection		Shuts off the output before the temperature of the internal components exceeds the safe operation temperature.							

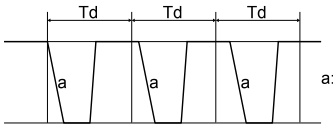
800 W Type Specifications

800 W type		PAV 10-72	PAV 20-40	PAV 36-24	PAV 60-14	PAV 100-8	PAV 160-5	PAV 320-2.5	PAV 650-1.25
Setting and readback (USB, RS232, RS485, optional LAN interface)									
Output voltage setting	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Number of decimal digits	3 digits				2 digits			
	Resolution	Approx. 1/60000 of rated output voltage							
Output current setting	Accuracy *20	0.1% of output current + 0.1% of the rated output current					0.2% of the rated output current		
	Number of decimal digits	2 digits	3 digits				4 digits		
	Resolution	Approx. 1/60000 of rated output current							
Output voltage readback	Accuracy	0.05% of the rated output voltage					0.05% of the output voltage + 0.05% of the rated output voltage		
	Resolution	Approx. 1/60000 of rated output voltage							
Output current readback	Accuracy *20	0.1% of output current + 0.3% of the rated output current							
	Resolution	Approx. 1/60000 of rated output current							
Front panel									
Control function		● Separate knobs (encoders) for setting the output voltage and output current (setting resolution switchable). ● Knobs (encoders) for setting OVP,UVP,and UVL. ● Protection functions (OVP, UVP, UVL, foldback) ● Output shutoff function (output on/off control, shutdown) ● Communication functions: Standard equipped with USB, RS232, RS485. LAN optional. ● Baudrate, address setting ● External control: Configuration using external voltage (5 V or 10 V) or external resistance (5 kΩ or 10 kΩ), output voltage/current monitor output (5 V or 10 V), output on/off, front panel operation lock							
Output voltage display	Accuracy	0.5% of the rated output voltage ± 1 count							
	Number of decimal digits	2 digits				1 digit			
Output current display	Accuracy	0.5% of the rated output current ± 1 count							
	Number of decimal digits	2 digits				3 digits			
LED display		Green: FINE, MENU, SET, ALARM, REM, OUTPUT, CV, CC Red: ALARM (OVP, UVP, OTP, FOLD, AC FAIL)							
Setting keys		FINE, MENU, SET, ALARM, REM, OUTPUT							

*1. The minimum voltage is 0.1% the rated output voltage.
*2. The minimum current is 0.2% of the rated output current.
*3. Vin: Input voltage
*4. Ta: Ambient temperature (performance depending on the input voltage versus rated output current and ambient tempera-ture shown below)

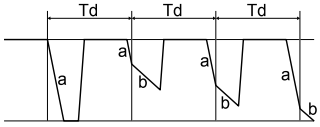


*5. Input voltage 100 Vac/200 Vac, at the rated output power, ambient temperature 25 °C If the LAN option is built in, the efficiency decreases by 0.5% and the input current increases by 0.5%.
*6. Excludes input surge current (duration 0.2 ms or less) applied to the built-in noise filter section.
*7. 85 Vac to 132 Vac or 170 Vac to 265 Vac, fixed load
*8. With the input voltage held constant, the sensing point was measured using remote sensing from no load to full load.
*9. Models with rated output voltages from 10 V to 100 V were measured using an RC-9131 A 1:1 probe that conforms to the JEITA specifications. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe. At an ambient temperature of 0 °C, measurement was performed after at least 1 minute had passed after startup.
*10. When at least 8 hours has passed after a 30 minute warm-up with the input voltage, load, and ambient temperature held constant
*11. For 30 minutes after turning on the power with the input voltage, load, and ambient temperature held constant
*12. Between 10% and 90% of the rated resistive load and rated output voltage
*13. If the output voltage is repeatedly decreased, Td is the minimum duration from a given voltage drop to the next voltage drop.
*14. Duration for the voltage to change from 90% to 10% of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is longer than Td.



a: Slope of the fall time of a at no load

*15. Duration for the voltage to change from 90% to 10% of the rated output voltage when the output voltage is repeatedly decreased and the duration from a given voltage drop to the next voltage drop is shorter than Td.



a: Slope of the fall time of a at no load
b: Slope of the fall time of b at no load

*16. The amount of time required for the output voltage to return to a value within 0.5% of the rated output voltage. The change in the load current is 10% to 90% of the rating. The output voltage is between 10% and 100% of the rating. During local sensing.
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*19. For models with a 10 V rated output voltage, this is the value for when the output voltage is 2 V to 10 V at the rated output current. For other models, this is the value for when the output voltage is 10 % to 100 % of the rating at the rated output current. Models with rated output voltage from 160 V to 650 V were measured using a 10:1 probe.
*20. In output current control, the current, linearity, and monitor accuracies do not include the load variation caused by initial drift and temperature drift of internal components.