

Power Supplies

FAW Series

AC Input

Single Output, General-Purpose

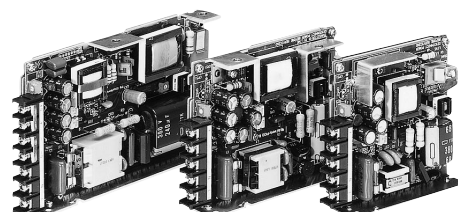
FEATURES

- Since input voltage can be selected over a range of AC.85 to 264V(AC.100 to 200V rating), these power supplies are compatible with industrial power voltages throughout the world.
- Rail mountable. Small open frame(cover is optional).
- Operation indicator LED.
- Low noise.

PART NUMBERS AND RATINGS

Output voltage(V)	15W type		25W type		50W type	
	Current(A)	Part No.	Current(A)	Part No.	Current(A)	Part No.
5	3	FAW05-3R0	5	FAW05-5R0	10	FAW05-10R
12	1.3	FAW12-1R3	2.1	FAW12-2R1	4.2	FAW12-4R2
15	1	FAW15-1R0	1.7	FAW15-1R7	3.4	FAW15-3R4
24	0.7	FAW24-0R7	1.1	FAW24-1R1	2.1	FAW24-2R1

Output voltage(V)	100W type		150W type	
	Current(A)	Part No.	Current(A)	Part No.
5	20	FAW05-20R	30	FAW05-30R
12	8.3	FAW12-8R3	12	FAW12-12R
15	6.6	FAW15-6R6	10	FAW15-10R
24	4.2	FAW24-4R2	6	FAW24-6R0
28	3.5	FAW28-3R5	5	FAW28-5R0
48	2	FAW48-2R0	2.8	FAW48-2R8



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SPECIFICATIONS

15W TYPE

Part No.		FAW05-3R0	FAW12-1R3	FAW15-1R0	FAW24-0R7
Output voltage, current* ¹		5V • 3A	12V • 1.3A	15V • 1A	24V • 0.7A
Maximum output power	W	15	15.6	15	16.8
Input requirements					
Input voltage Eac	V	85 to 264[Rating: 100-120, 200-240]			
Input frequency	Hz	47 to 66[Single phase]			
Input current	A	0.4max./0.3max.[100-120V/200-240V, at maximum output power]			
Fuse rating	A	2[Internal]			
Surge current* ²	A	22max./34max.[100-120V/200-240V, 25°C, output rating, cold start]			
Leakage current	mA	0.5max./0.75max.[100-120V/200-240V, 25°C, output rating]			
Efficiency	%	70typ.			
Output characteristics					
Output voltage	V	5	12	15	24
Voltage variable range	V	4.5 to 5.5	10.8 to 13.2	13.5 to 16.5	21.6 to 26.4
Maximum output current* ¹	A	3	1.3	1	0.7
Overvoltage threshold	V	6 to 6.9	13.7 to 15.7	17 to 19	27 to 30.5
Overcurrent threshold	A	3.3 to 5.5	1.4 to 2.5	1.1 to 2	0.8 to 1.4
Voltage stability	Input variation	%	2max.(1typ.)[85 to 132V, 170 to 264V]		Total variation 4max.(2typ.)
	Load variation	%	2max.(1typ.)[10 to 100% load]		
	Temperature variation	%	2max.(1typ.)[0 to +50°C]		
	Drift	%	0.5max.(0.1typ.)[25°C, input and output ratings, after input voltage ON for 30min to 8h]		
	Dynamic load	%/ms	±4max./2max.[50 to 100% sudden load change]		
Ripple Ep-p	mV	60max.	80max.	80max.	100max.
Ripple noise Ep-p	mV	120max.	190max.	220max.	310max.
Start up time	ms	500max.			
Hold up time	ms	15min.			
Accessory equipment					
Operation indicator		LED illuminates when voltage output is ON.			
Overvoltage protection		Voltage shielding type, recovers upon reset after roughly 30s.			
Overcurrent protection		Fixed current threshold type, automatic recovery.			
Remote ON-OFF		None			
Remote sensing		None			
Current balance		None			
Standards					
Safety standards		UL1950D3, CSA1402C, EN60950(TÜV) approved.			
Noise terminal voltage		FCC class B[100-120V], VDE0871 class B[220-240V] compliant.			
Construction					
External dimensions H×W×L	mm	25×95×100 With cover(Optional)* ³ : 30×95×100			
Weight	g	270max.			
Mounting method		Can be attached to 2 sides.			
Case material		Frame: Steel Cover(Optional): Steel			

*¹ Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

*² The surge current suppression element is a power thermistor.

*³ Derating is required when the optional cover is attached.

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25W TYPE

Part No.		FAW05-5R0	FAW12-2R1	FAW15-1R7	FAW24-1R1
Output voltage, current* ¹		5V • 5A	12V • 2.1A	15V • 1.7A	24V • 1.1A
Maximum output power	W	25	25.2	25.5	26.4
Input requirements					
Input voltage Eac	V	85 to 264[Rating: 100-120, 200-240]			
Input frequency	Hz	47 to 66[Single phase]			
Input current	A	0.7max./0.45max.[100-120V/200-240V, at maximum output power]			
Fuse rating	A	2.5[Internal]			
Surge current* ²	A	43max./85max.[100-120V/200-240V, 25°C, output rating, cold start]			
Leakage current	mA	0.5max./0.75max.[100-120V/200-240V, 25°C, output rating]			
Efficiency	%	70typ.			
Output characteristics					
Output voltage	V	5	12	15	24
Voltage variable range	V	4.5 to 5.5	10.8 to 13.2	13.5 to 16.5	21.6 to 26.4
Maximum output current* ¹	A	5	2.1	1.7	1.1
Overvoltage threshold	V	6 to 6.9	13.7 to 15.7	17 to 19	27 to 30.5
Overcurrent threshold	A	5.5 to 7.5	2.3 to 3.3	1.9 to 2.8	1.2 to 1.8
Voltage stability	Input variation	%	2max.(1typ.)[85 to 132V, 170 to 264V]		Total variation 4max.(2typ.)
	Load variation	%	2max.(1typ.)[10 to 100% load]		
	Temperature variation	%	2max.(1typ.)[0 to +50°C]		
	Drift	%	0.5max.(0.1typ.)[25°C, input and output ratings, after input voltage ON for 30min to 8h]		
	Dynamic load	%/ms	±4max./2max.[50 to 100% sudden load change]		
Ripple Ep-p	mV	80max.	100max.	120max.	150max.
Ripple noise Ep-p	mV	120max.	190max.	220max.	310max.
Start up time	ms	500max.			
Hold up time	ms	15min.			
Accessory equipment					
Operation indicator		LED illuminates when voltage output is ON.			
Overvoltage protection		Voltage shielding type, recovers upon reset after roughly 30s.			
Overcurrent protection		Fixed current threshold type, automatic recovery.			
Remote ON-OFF		None			
Remote sensing		None			
Current balance		None			
Standards					
Safety standards		UL1950D3, CSA1402C, EN60950(TÜV) approved.			
Noise terminal voltage		FCC class B[100 to 120V], VDE0871 class B[220 to 240V] compliant.			
Construction					
External dimensions H×W×L	mm	25×95×125 With cover(Optional)* ³ : 30×95×125			
Weight	g	300max.			
Mounting method		Can be attached to 2 sides.			
Case material		Frame: Aluminum Cover(Optional): Steel			

*¹ Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

*² The surge current suppression element is a power thermistor.

*³ Derating is required when the optional cover is attached.

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50W TYPE

Part No.		FAW05-10R	FAW12-4R2	FAW15-3R4	FAW24-2R1
Output voltage, current* ¹		5V • 10A	12V • 4.2A	15V • 3.4A	24V • 2.1A
Maximum output power	W	50	50.4	51	50.4
Input requirements					
Input voltage Eac	V	85 to 264[Rating: 100-120, 200-240]			
Input frequency	Hz	47 to 66[Single phase]			
Input current	A	1.2max./0.7max.[100-120V/200-240V, at maximum output power]			
Fuse rating	A	3[Internal]			
Surge current* ²	A	45max./90max.[100-120V/200-240V, 25°C, output rating, cold start]			
Leakage current	mA	0.5max./0.75max.[100-120V/200-240V, 25°C, output rating]			
Efficiency	%	76typ.			
Output characteristics					
Output voltage	V	5	12	15	24
Voltage variable range	V	4.5 to 5.5	10.8 to 13.2	13.5 to 16.5	21.6 to 26.4
Maximum output current* ¹	A	10	4.2	3.4	2.1
Overvoltage threshold	V	6 to 6.9	13.7 to 15.7	17 to 19	27 to 30.5
Overcurrent threshold	A	10.5 to 12	4.4 to 5.1	3.6 to 4.1	2.2 to 2.6
Voltage stability	Input variation	%	2max.(1typ.)[85 to 132V, 170 to 264V]		Total variation 4max.(2typ.)
	Load variation	%	2max.(1typ.)[10 to 100% load]		
	Temperature variation	%	2max.(1typ.)[0 to +50°C]		
	Drift	%	0.5max.(0.1typ.)[25°C, input and output ratings, after input voltage ON for 30min to 8h]		
	Dynamic load	%/ms	±4max./2max.[50 to 100% sudden load change]		
Ripple Ep-p	mV	80max.	100max.	120max.	150max.
Ripple noise Ep-p	mV	120max.	190max.	220max.	310max.
Start up time	ms	500max.			
Hold up time	ms	15min.			
Accessory equipment					
Operation indicator	LED illuminates when voltage output is ON.				
Overvoltage protection	Voltage shielding type, recovers upon reset after roughly 30s.				
Overcurrent protection	Fixed current threshold type, automatic recovery.				
Remote ON-OFF	None				
Remote sensing	Yes				
Current balance	None				
Standards					
Safety standards	UL1950D3, CSA1402C, EN60950(TÜV) approved.				
Noise terminal voltage	FCC class B[100 to 120V], VDE0871 class B[220 to 240V] compliant.				
Construction					
External dimensions H×W×L	mm	25×95×165 With cover(Optional)* ³ : 31×95×165			
Weight	g	450max.			
Mounting method	Can be attached to 2 sides.				
Case material	Frame: Aluminum Cover(Optional): Steel				

*¹ Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

*² The surge current suppression element is a power thermistor.

*³ Derating is required when the optional cover is attached.

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100W TYPE

Part No.		FAW05-20R	FAW12-8R3	FAW15-6R6	FAW24-4R2	FAW28-3R5	FAW48-2R0
Output voltage, current* ¹		5V • 20A	12V • 8.3A	15V • 6.6A	24V • 4.2A	28V • 3.5A	48V • 2A
Maximum output power	W	100	99.6	99	100.8	98	96
Input requirements							
Input voltage Eac	V	85 to 264[Rating: 100-120, 200-240]					
Input frequency	Hz	47 to 66[Single phase]					
Input current	A	2.4max./1.6max.[100-120V/200-240V]					
Fuse rating	A	5[Internal]					
Surge current	A	25max./50max.[100-120V/200-240V, 1st surge current, reset after roughly 30s min.]					
Leakage current	mA	0.5max./0.75max.[100-120V/200-240V]					
Efficiency	%	78typ.					
Output characteristics							
Output voltage	V	5	12	15	24	28	48
Voltage variable range	V	4.5 to 5.5	10.8 to 13.2	13.5 to 16.5	21.6 to 26.4	25.2 to 30.8	43.2 to 52.8
Maximum output current* ¹	A	20	8.3	6.6	4.2	3.5	2
Overvoltage threshold	V	6 to 6.9	13.7 to 15.7	17 to 19	27 to 30.5	32 to 35	53.5 to 60
Overcurrent threshold	A	21 to 24	8.7 to 10	7 to 8	4.4 to 5.2	3.7 to 4.2	2.1 to 2.4
Voltage stability	Input variation	% 2max.(1typ.)[85 to 132V, 170 to 264V]					Total variation ±2max.(±1typ.)
	Load variation	% 2max.(1typ.)[10 to 100% load]					
	Temperature variation	% 2max.(1typ.)[0 to +50°C]					
	Drift	% 0.5max.(0.1typ.)[After input voltage ON for 30min to 8h]					
	Dynamic load	%ms ±4max./1max.[50 to 100% sudden load change]					
Ripple Ep-p	mV	80max.	100max.	120max.	150max.	180max.	260max.
Ripple noise Ep-p	mV	120max.	190max.	220max.	310max.	330max.	530max.
Start up time	ms	200max.					
Hold up time	ms	15min.					
Accessory equipment							
Operation indicator		LED illuminates when voltage output is ON.					
Overvoltage protection		Voltage shielding type, recovers upon reset after roughly 90/120s[120/240V].					
Overcurrent protection		Fixed current threshold type, automatic recovery.					
Remote ON-OFF		None					
Remote sensing		Yes					
Current balance		None					
Standards							
Safety standards* ²		UL1950, CSA C22.2 No. 234, EN60950(TÜV) approved.					
Noise terminal voltage		FCC class B[100-120V], VDE0871 class B[220-240V] compliant.					
Construction							
External dimensions H×W×L	mm	95×35×200					
Weight	kg	1max.					
Mounting method							
Case material		Frame: Aluminum Cover(Optional): Steel					

*¹ Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

*² Derating is required when the optional cover is attached.

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AC Input

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SPECIFICATIONS

150W TYPE

Part No.		FAW05-30R	FAW12-12R	FAW15-10R	FAW24-6R0	FAW28-5R0	FAW48-2R8
Output voltage, current*1		5V • 30A	12V • 12A	15V • 10A	24V • 6A	28V • 5A	48V • 2.8A
Maximum output power	W	150	144	150	144	140	134.4
Input requirements							
Input voltage Eac	V	85 to 264[Rating: 100-120, 200-240]					
Input frequency	Hz	47 to 66[Single phase]					
Input current	A	3.5max./2max.[100-120V/200-240V]					
Fuse rating	A	6.3[Internal]					
Surge current	A	25max./50max.[100-120V/200-240V, 1st surge current, reset after roughly 30s min.]					
Leakage current	mA	0.5max./0.75max.[100-120V/200-240V]					
Efficiency	%	78typ.					
Output characteristics							
Output voltage	V	5	12	15	24	28	48
Voltage variable range	V	4.5 to 5.5	10.8 to 13.2	13.5 to 16.5	21.6 to 26.4	25.2 to 30.8	43.2 to 52.8
Maximum output current*1	A	30	12	10	6	5	2.8
Overvoltage threshold	V	6 to 6.9	13.7 to 15.7	17 to 19	27 to 30.5	32 to 35	53.5 to 60
Overcurrent threshold	A	32 to 36	13 to 15	11 to 13	6.3 to 7.5	5.3 to 6.1	3 to 3.5
Voltage stability	Input variation	%	2max.(1typ.)[85 to 132V, 170 to 264V]			Total variation ±2max.(±1typ.)	
	Load variation	%	2max.(1typ.)[10 to 100% load]				
	Temperature variation	%	2max.(1typ.)[0 to +50°C]				
	Drift	%	0.5max.(0.1typ.)[After input voltage ON for 30min to 8h]				
	Dynamic load	%/ms	±4max./1max.[50 to 100% sudden load change]				
Ripple Ep-p	mV	80max.	100max.	120max.	150max.	180max.	260max.
Ripple noise Ep-p	mV	120max.	190max.	220max.	310max.	330max.	530max.
Start up time	ms	200max.					
Hold up time	ms	15min.					
Accessory equipment							
Operation indicator		LED illuminates when voltage output is ON.					
Overvoltage protection		Voltage shielding type, recovers upon reset after roughly 90/120s[120/240V].					
Overcurrent protection		Fixed current threshold type, automatic recovery.					
Remote ON-OFF		None					
Remote sensing		Yes					
Current balance		None					
Standards							
Safety standards*2		UL1950, CSA C22.2 No.234, EN60950(TÜV) approved.					
Noise terminal voltage		FCC class B[100-120V], VDE0871 class B[220 to 240V] compliant.					
Construction							
External dimensions H×W×L	mm	95×51×200					
Weight	kg	1.2max.					
Mounting method							
Case material		Frame: Aluminum Cover(Optional): Steel					

*1 Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

*2 Derating is required when the optional cover is attached.

Power Supplies

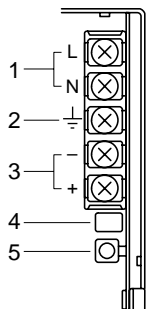
FAW Series

AC Input

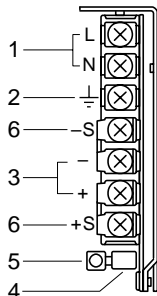
Single Output, General-Purpose

TERMINAL DESIGNATIONS AND FUNCTIONS

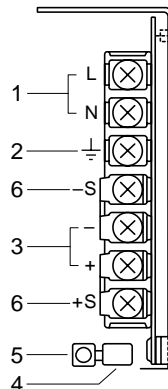
15W, 25W TYPE



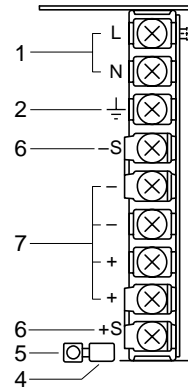
50W TYPE



100W TYPE



150W TYPE



Terminal No. 1: AC input terminals(L, N)

Connect to single phase power supply, either AC. 100 to 120V or AC.200 to 240V.

Terminal No. 2: Frame ground terminal(\perp)

Connect to earth ground. This is connected to the case.

Terminal No. 3: DC output terminals(+, -)

Connect to load.

Terminal No. 4: Output voltage adjustment trim

Adjusts output voltage.

Terminal No. 5: Operation indicator LED

This green LED becomes illuminated when voltage is output.

LED of the 100W and 150W models is mounted on a mini-board.

Terminal No. 6: Remote sensing terminals(+S, -S)

These are normally jumpered. When controlling voltage to the load, please remove jumper, and connect wires to these terminals.

Terminal No. 7: DC output terminals(+, +, -, -) 150W type

These are wired to the loads. 20A max. allowable current per terminal. Use of terminal pairs is recommended.