

V System Design

1. Electrical work

(1) General cautions

⚠ Warning:

Electrical work should be done by qualified electrical engineers in accordance with “Engineering Standards For Electrical Installation” and supplied installation manuals. Special circuits should also be used. If the power circuit lacks capacity or has an installation failure, it may cause a risk of electric shock or fire.

1. Be sure to take power from the special branch circuit.
2. Be sure to install an earth leakage breaker to the power.
3. Install the unit to prevent that any of the control circuit cables (remote controller, transmission cables, or external input/output line) is brought in direct contact with the power cable outside the unit.
4. Ensure that there is no slack on all wire connections.
5. Some cables (power, remote controller, transmission cables external input/output line) above the ceiling may be bitten by mouses. Use as many metal pipes as possible to insert the cables into them for protection.
6. Never connect the power cable to leads for the transmission cables. Otherwise the cables would be broken.
7. Be sure to connect control cables to the indoor unit, remote controller, and the outdoor unit.
8. Be sure to ground the unit.
9. Select control cables from the conditions given in page 60.

⚠ Caution:

Be sure to put the unit to the ground on the outdoor unit side. Do not connect the earth cable to any gas pipe, water pipe, lightning rod, or telephone earth cable. Incomplete grounding may cause a risk of electric shock.

(2) Power supply for PWFY unit

(2)-1 Electrical characteristics of PWFY unit

- Power supply cords of appliances shall not be lighter than design 245 IEC 57 or 227 IEC 57.
- A switch with at least 3 mm contact separation in each pole shall be provided by the Air conditioner installation.

Model	Power supply				Compressor		RLA (A)
	Hz	Volts	Voltage range	MCA (A)	Output (kW)	SC (A)	Heating
PWFY-P100VM-E-BU	50/60	220-230-240 V	Max. 264 V Min. 198 V	15.71	1.0	1.25	11.63-11.12-10.66

Model	Power supply				RLA (A)	
	Hz	Volts	Voltage range	MCA (A)	Cooling	Heating
PWFY-EP100VM-E1-AU	50/60	220-230-240 V	Max. 264 V Min. 198 V	0.085	0.068-0.065-0.063	

Model	Power supply				RLA (A)	
	Hz	Volts	Voltage range	MCA (A)	Cooling	Heating
PWFY-EP100VM-E2-AU	50/60	220-230-240 V	Max. 264 V Min. 198 V	0.175	0.138-0.139-0.140	

Model	Power supply			RLA (A)
	Hz	Volts	Voltage range	
PAC-SV01PW-E	50/60	220-230-240 V	Max. 264 V Min. 198 V	0.070-0.074-0.077

(2)-2 Power cable specifications

Model	Minimum wire thickness (mm ²)			Breaker for current leakage	Local switch (A)		Breaker for wiring (NFB) (A)
	Main cable	branch	Ground		capacity	fuse	
PWFY-P100VM-E-BU	2.5	-	2.5	30 A 30 mA 0.1 sec or less	25	25	30

Model		Minimum wire thickness (mm ²)			Breaker for current leakage	Local switch (A)		Breaker for wiring (NFB) (A)	
		Main cable	branch	Ground		capacity	fuse		
PWFY-EP100VM-E1/E2-AU	Total	16 A or less	1.5	1.5	1.5	20 A 30 mA 0.1 sec. or less	16	16	20
	operating	25 A or less	2.5	2.5	2.5	30 A 30 mA 0.1 sec. or less	25	25	30
	current	32 A or less	4.0	4.0	4.0	40 A 30 mA 0.1 sec. or less	32	32	40

Model	Minimum wire thickness (mm ²)		
	Main cable	branch	Ground
PAC-SV01PW-E	1.5	1.5	1.5