![RHYMEBUS]

Solar Drive for Pump
RM6F6-0713 Series 0.75kW~55kW
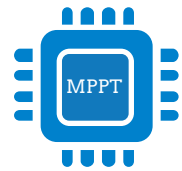
RM6F6-0713
1PH AC200V 1.5kW/2HP

Green Tech
科技創未來‧打造綠生活 Green Life

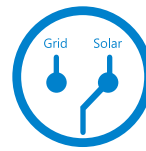## Powered by Solar Energy
Drive Your Green Future

Features

- Built-in MPPT (Maximum Power Point Tracking), maximizes your power output.
- With pump protection to prevent dry run, over pressure, etc.
- Automatic start/stop function is compatible with level sensors and flow sensor to control water level of water tower.
- Optional Auto-Switch module (ATS) with dual power mode, able to switch between solar and grid power depending on different irradiance.

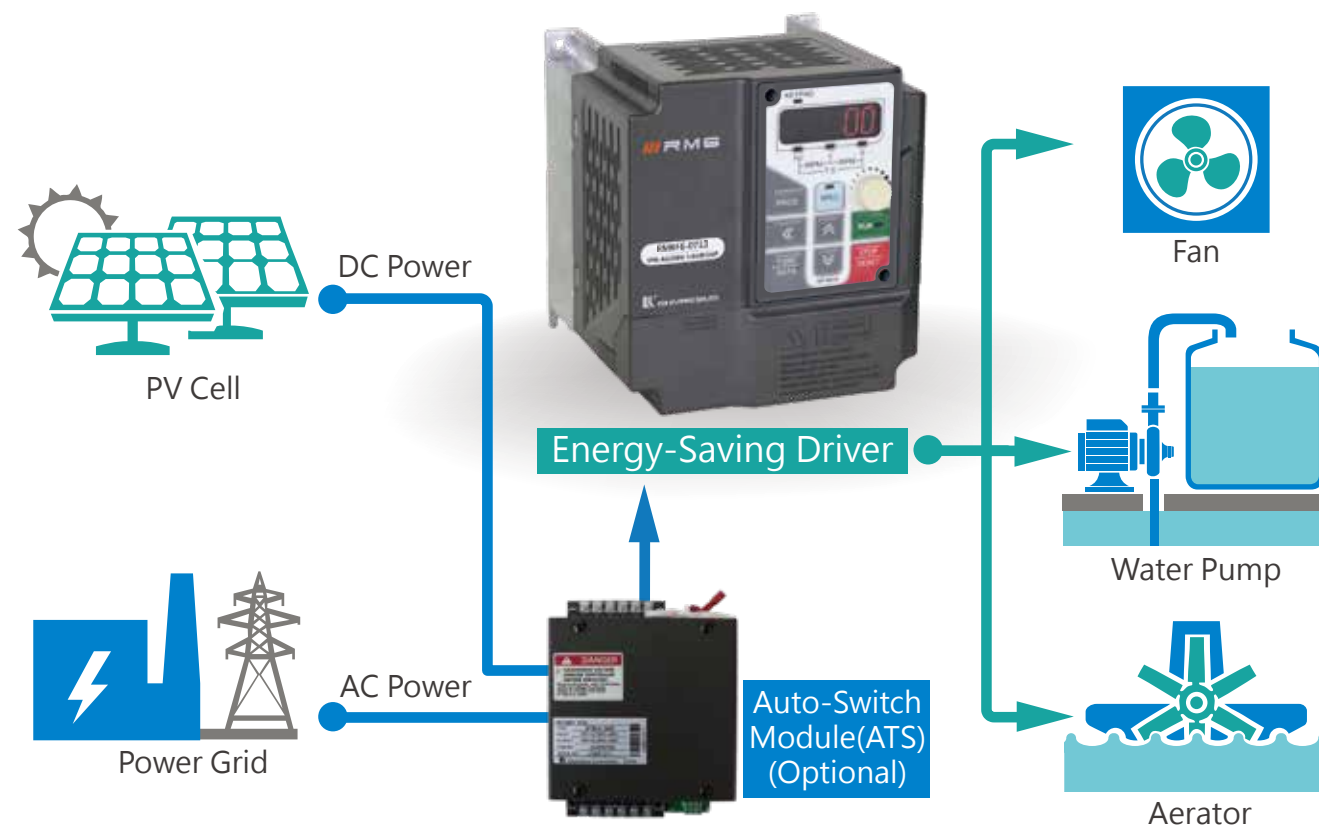| MPPT	✓	Grid / Solar	↻
Built-in MPPT	Fault Protection	Dual power	Automatic Start/Stop

System Structure

PV Cell → DC Power → Energy-Saving Driver

Power Grid → AC Power → Auto-Switch Module(ATS) (Optional)

→ Fan

→ Water Pump

→ Aerator

Application

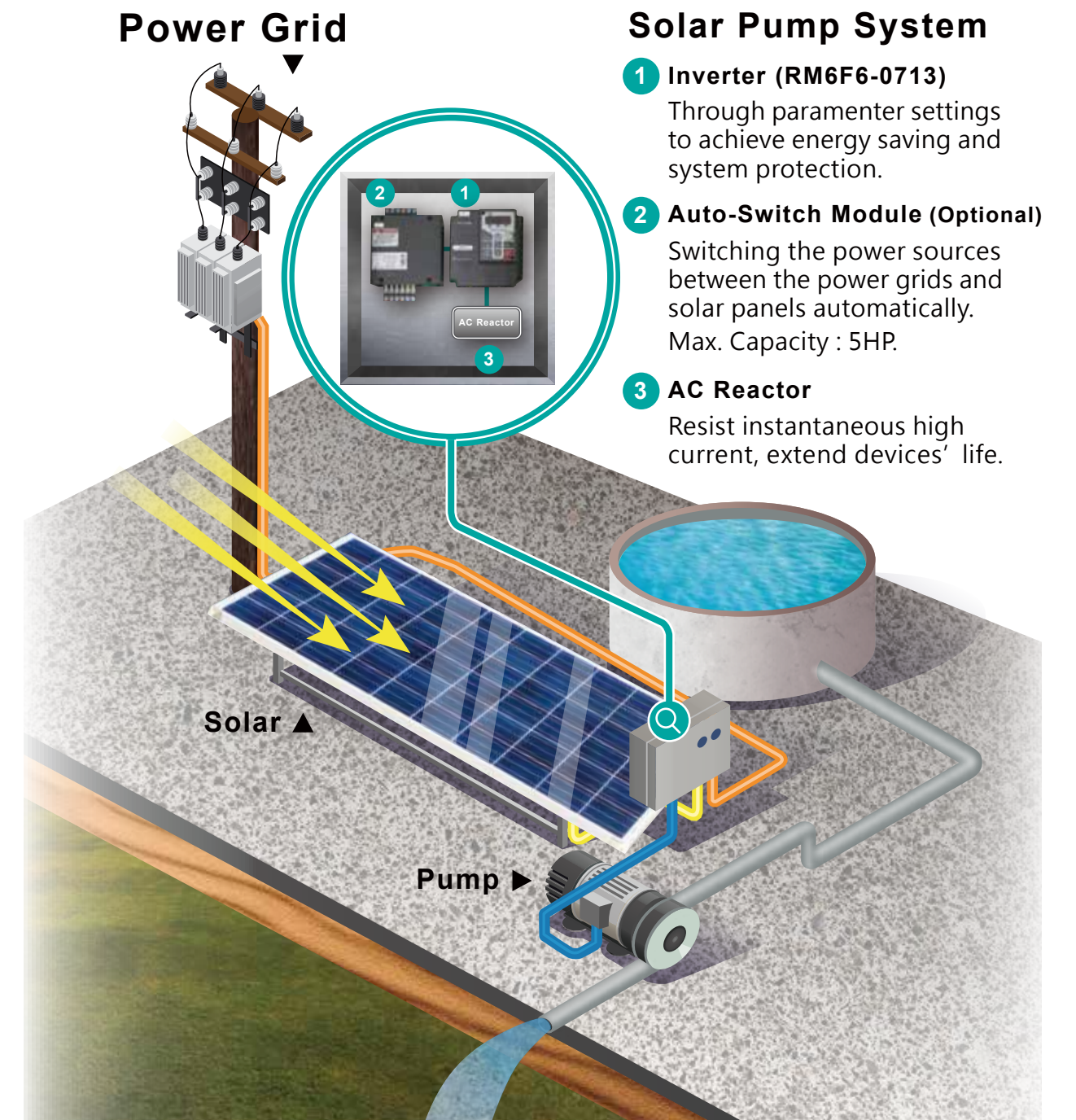| Domestic Water Supply	Fountain	Swimming Pool	Irrigation of land	Fishing Farming	Livestock

System Descriptions

- High energy efficiency, reduces your carbon footprint.
- Fully automatic system, dedicate to 3-phase AC, submersible or surface mount pumps by variable speed drives.
- Solar pump is more efficient for storing water in tanks then electricity in batteries. Hence the system is no need to carry power storage unit.
- The system is applicable to elevated water storage systems, e.g. a water tower or an uphill tank installation.

Solar Pump System

The structure of the solar pump system is very simple, it just needs Solar panel with Enerfy-Saving driver system and it can drive the pump, fan and other motor applications.

Power Grid

Solar Pump System

1 Inverter (RM6F6-0713)
Through paramenter settings to achieve energy saving and system protection.

2 Auto-Switch Module (Optional)
Switching the power sources between the power grids and solar panels automatically. Max. Capacity : 5HP.

3 AC Reactor
Resist instantaneous high current, extend devices' life.

Solar ▲

Pump ▶

How customers are using solar pump?

The solar pump inverter is not only for pumps.

It also can be applied to fans and more equipment for various applications.

Stable ventilation

Cow comfort plays a key role in producing high-quality milk. Therefore, maintaining a stable barn climate with suitable curtains and ventilation openings is essential.
To circulate fresh air around the barn, you need powerful fans. Solar pump can use the solar power to drive fans smoothly and provide warnings when a failure occurs.

Cooling tower

Regardless of rural or urban areas, as long as there is a need for green energy, you can use solar pumps. The cooling tower is also a device suitable to adapt to solar water pumps. When there is sunshine, it uses solar energy to reduce carbon emissions, and when it is cloudy, the ATS system will switch the power source to power grid automatically.

Aeration in fish farming

Fish consumption is rising. With the increase of the world population and the need for nutritious food, fish farming is heading in a sustainable way, with respect for natural resources. In fish farming, aeration is literally of vital importance and takes a lot of energy. Adopting solar pump with solar power instead of diesel power can provide a more energy-saving and environmentally friendly solution for fishing farming.

Domestic water supply

Rhymebus is providing very economical solutions for both water abstraction and pressure boosting applications.
Residents are able to lower their costs by converting their pump systems from diesel power to solar or a solar hybrid system.

Irrigation water system

Solar pumps are an excellent solution for irrigation – more sunlight brings more water. It can send water to places without any existing infrastructure and transform unused land into farmland. Solar pumps support drip, sprinkler or flood irrigation method to provide water into irrigation systems in different land.
Almost any existing irrigation system can be converted to solar power without replacement.
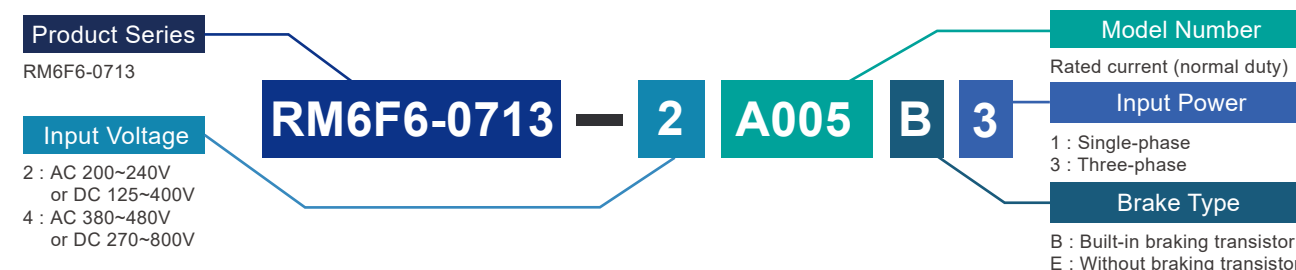
Small Factory

Where an industrial process uses high volumes of water then solar pumps can significantly reduce energy costs and provide a reliable solution to water demands. Small factory can suffer from unstable grid power or very high peak rate power. With a solar pump system, pumps will operate using solar power as much as possible during the daytime by the MPPT function and switch to grid power when it is cloudy to ensure the production.

Landscaping Fountain

Solar pumps can be used for Landscape water treatment in parks, wetlands, lakes, etc.
It can make these beautiful landscaping not only beautifying our live, but also green, energy-saving, and environmentally friendly.

Model Designation

RM6F6-0713 — 2 A005 B 3

Product Series
RM6F6-0713

Input Voltage
2 : AC 200~240V
    or DC 125~400V
4 : AC 380~480V
    or DC 270~800V

Model Number
Rated current (normal duty)

Input Power
1 : Single-phase
3 : Three-phase

Brake Type
B : Built-in braking transistor
E : Without braking transistor

Standard Specifications

200V Series

| Modle Name (RM6F6-0713-□□□□□□□)	2A005B3	2A007B3	2A010B3	2A016B3	2A022B3	2A031 B3	2A042 B3	2A060 B3	2A075 B3/E3	2A090 B3/E3	2A112 B3/E3	2A150 B3/E3
Maximum Applicable Motor (HP/kW)	1 / 0.75	2 / 1.5	3 / 2.2	5 / 3.7	7.5 / 5.5	10 / 7.5	15 / 11	20 / 15	25 / 18.5	30 / 22	40 / 30	50 / 37
Rated Output Capacity (kVA)	1.6	2.6	3.8	5.8	8.0	12	16	23	29	34	43	57
Rated Output Current (A)	4.2	6.8	10	15.2	21	31	42	60	75	90	112	150
Rated Output Voltage (A)	Three-phase 200~240V(Correspond to input voltage)											
Output Frequency Range (Hz)	0.1~599.00Hz											
Power Source(ø,V,Hz)	DC 125 ~ 400V AC 3ø 200 ~ 240V											
Input Current (A)	5	8	12	18	25	41	56	68	86	103	128	183
Permissible AC Power Source Fluctuation	170~264V 50/60Hz / ±5%											
Overload Capacity	120% of drive rated output current for 1 min											
Cooling Method	Natural cooling					Fan cooling						
Protection design	IP20											
Drive Weight (kg)	1.8	1.8	1.8	2.0	2.1	3.0	5.4	5.7	12.4	13.1	14.7	14.8
Case code	Case 1					Case 2	Case 3		Case 4			

400V Series

Modle Name (RM6F6-0713-□□□□□□□)	4A003 B3	4A004 B3	4A005 B3	4A009 B3	4A012 B3	4A018 B3	4A023 B3	4A031 B3	4A039 B3	4A045 B3	4A058 B3/E3	4A075 B3/E3	4A091 B3/E3	4A110 B3/E3
Maximum Applicable Motor (HP/kW)	1 / 0.75	2 / 1.5	3 / 2.2	5 / 3.7	7.5 / 5.5	10 / 7.5	15 / 11	20 / 15	25 / 18.5	30 / 22	40 / 30	50 / 37	60 / 45	75 / 55
Rated Output Capacity (kVA)	1.8	2.7	3.7	6.9	8.4	14	18	24	30	34	44	57	69	84
Rated Output Current (A)	2.4	3.5	5	9	11.3	18	23	31	39	45	58	75	91	110
Rated Output Voltage (A)	Three-phase 380~480V(Correspond to input voltage)													
Output Frequency Range (Hz)	0.1~599.00Hz													
Power Source(ø,V,Hz)	DC 270 ~ 800V AC 3ø 380 ~ 480V													
Input Current (A)	2.3	4.2	5.8	12	13	20	26	44	47	52	66	86	105	132
Permissible AC Power Source Fluctuation	323~528V 50/60Hz / ±5%													
Overload Capacity	120% of drive rated output current for 1 min													
Cooling Method	Natural cooling			Fan cooling										
Protection design	IP20													
Drive Weight (kg)	1.8	1.8	1.9	2.0	2.0	3.0	3.1	5.6	5.7	5.8	12.8	12.9	15	15.3
Case code	Case 1				Case 2		Case 3			Case 4				

Dimensions

Case 1

Unit: mm

Case 2~4

Internal cooling type	External cooling type
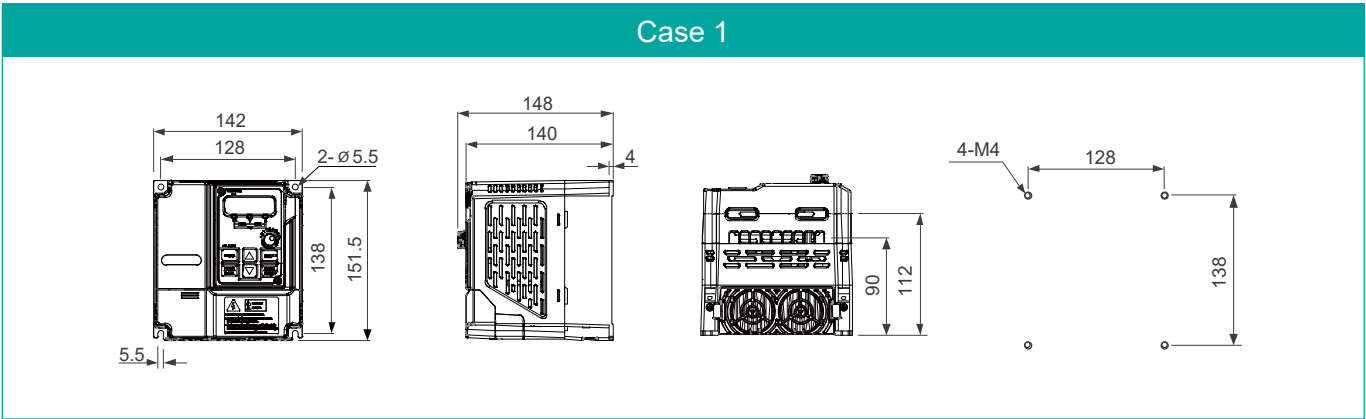
Case 2	Case 3	Case 4
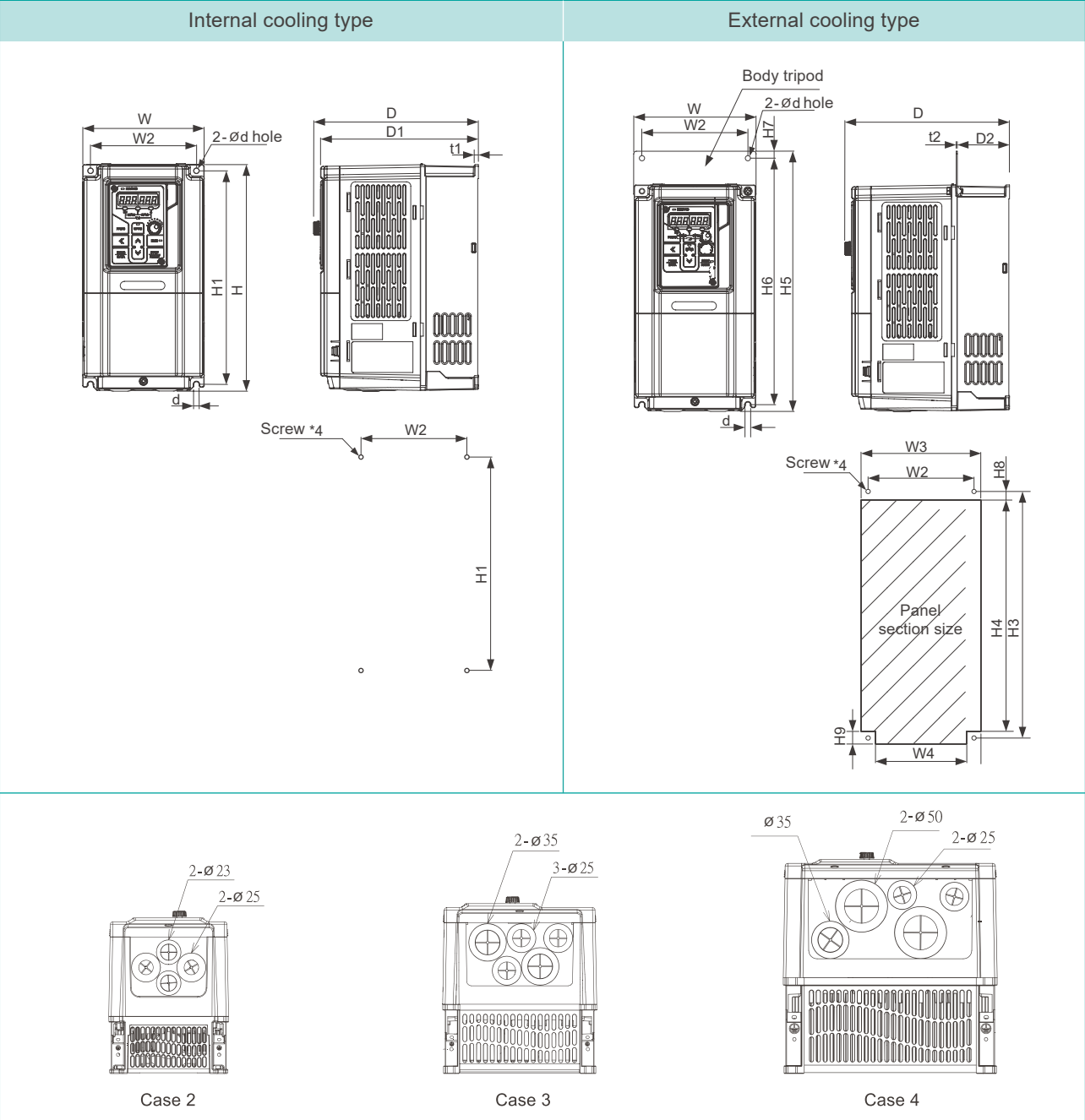
Unit: mm

Case	type		Dimension (mm)																								Screw
	200V	400V	W	W1	W2	W3	W4	H	H1	H2	H3	H4	H5	H6	H7	H8	H9	h1	h2	t1	t2	D	D1	D2	D3	d	(mm)
CASE2	005~ 031	004~ 023	140	-	122	138.5	105	260	246	-	284	267	300	284	8	10	14.5	-	-	4.7	1.2	190	182	60	-	6	M5
CASE3	042~ 060	031~ 045	180	-	162	178.5	149	290	277	-	313	290	329	313	8	10	20	-	-	9	1.6	207	199	74	-	6.5	M5
CASE4	075~ 150	058~ 110	250	-	230	247	211	400	380	-	427	396	448	427	10	11.5	29	-	-	9.5	2	258	250	103	-	9	M8