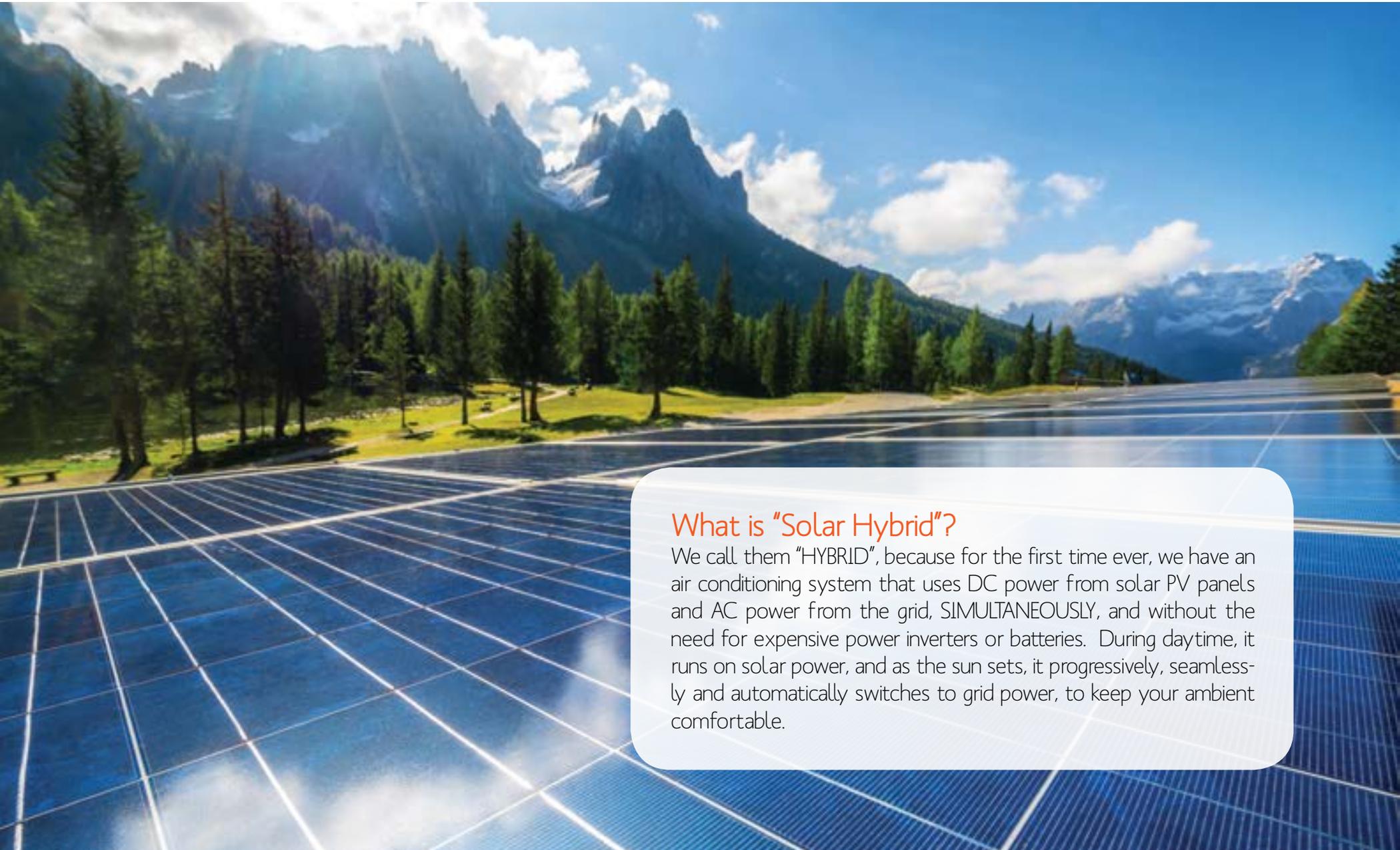




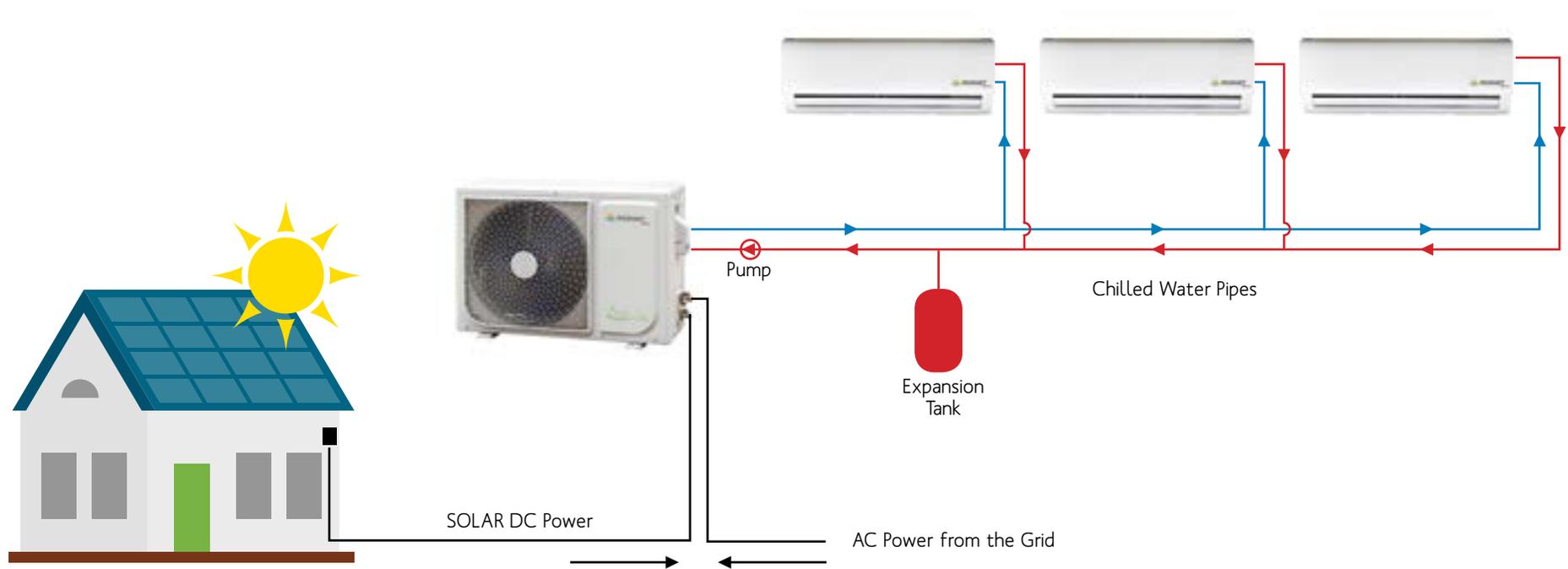
Solar Hybrid
Mini - Chillers





What is "Solar Hybrid"?

We call them "HYBRID", because for the first time ever, we have an air conditioning system that uses DC power from solar PV panels and AC power from the grid, SIMULTANEOUSLY, and without the need for expensive power inverters or batteries. During daytime, it runs on solar power, and as the sun sets, it progressively, seamlessly and automatically switches to grid power, to keep your ambient comfortable.



Multi-zoning and Variable Water Flow, without hassles

All the advantages of Solar Hybrid Technology, plus the benefits and safety of multi-zoning, with variable water flow, while eliminating all refrigerant piping inside your building, at the highest efficiency in the market.

A revolutionary concept in small air conditioning systems: Solar Hybrid Variable Water Flow

All the advantages of VRF Systems with the advantages of Chilled-water systems, all in one package for the first time ever.

For those applications that benefit from a multi-zoning approach, like large single family homes, or large offices, you can buy one single outdoor unit (mini-chiller/heat pump), sized for the total demand of your building, and then pair it with several indoor fan-coil units, in smaller capacities. For instance, a 5-ton (60,000 BTU/h) outdoor module, can be coupled with up to 6 x 9,000 BTU/h indoor units, or 5 x 12,000 BTU/h indoor units, or any combination thereof.

Solar Hybrid Mini - Split A/C



The Alternative to VRF

Now you have an alternative to expensive and complex VRF systems, with all their complicated refrigerant distribution and the risk of refrigerant leaks. Our system uses inexpensive PVC piping to distribute chilled water (or hot water in winter as an option) with a variable flow approach.

Load-matching with the highest efficiency

You can now enjoy a system that closely follows your building's demand profile, at any time of the day or night, without uncomfortable hot or cold spikes.

Our design incorporates some neat state-of-the-art, technology for maximum energy savings, like Triple Inverter with DC variable-speed brushless motors, in compressors and indoor/outdoor fans. There is nothing more efficient in the market right now.



Here is RADIANT

Marketed under the RADIANT brand, MESAN USA has developed this innovative line of solar hybrid air conditioning equipment.

Capacities range from:

- Outdoor modules: 27,000 BTU/h; 41,000 BTU/h; 60,000 BTU/h and 85,000 BTU/h. Refer to table on page 7 for exact capacities.
- Indoor fancoils: 9,000 BTU/h; 12,000 BTU/h; 18,000 BTU/h.
- Fancoils come in two different configurations: Hi-wall ductless type and ceiling concealed ducted type.

All these capacities allow for infinite combinations of indoor and outdoor units.

50%
quieter than
conventional
air conditioners



Smart Hybrid DC/AC technology

Flexibility taken to the next level

These units can be installed with or without PV solar panels, although their maximum efficiency is accomplished when using our recommended number of PV panels (see table on next page for quantities per model). For instance, a 9,000 BTU/h system, requires 4 x 300 Watts PV panels, but it can be installed with 1; 2 or 3 panels too.

Also, one outdoor unit (chiller) can be combined with several indoor units (fancoils) of different capacities and configurations.

Solar Hybrid Mini - Split A/C

Model			MRSV-8A	MRSV-12A	MRSV-18A	MRSV-25A
Power supply (AC current)		V/Hz/Ph	220V/50Hz - 60Hz/ 1 phase		380-460V/50Hz-60Hz/3 phase	
Solar PV power (DC current)		Volts	DC100V ~ DC380V		DC200V ~ DC560V	
Recommended number of solar PV panels* (300W each)		Qty.	12	16	18	24
Heating (O.A.air @ 45 °F DB/water @ 95°F)	Nominal heating capacity	Btu/h	32.000	50.000	70.000	95.000
	Rated heating input power	kW	2,9	3,3	4,77	6,5
	FLA	Amps	10,2	15,8	8,1	10,9
Cooling (O.A. air @95°F DB/water @ 45°F)	Nominal cooling capacity	Btu/h	27,300	41,000	61,400	85,400
	Rated cooling input power	kW	2,8	4,1	6,2	8,3
	FLA	Amps	13,0	19,0	10,4	14,0
Circulating water flow rate in cooling mode (@ 10°F DT)		gpm	5,5	8,2	12,3	17,1
Compressor / Refrigerant		Type	MITSUBISHI DC inverter - R410A			
Sound Pressure Level @ 5 ft.		dB(A)	52,0	53,0	57,0	60,0
Net weight		Lbs.	210,0	239,0	331,0	640,0
Inlet/Outlet pipe size		Inches	1" FNPT		1-1/4" FNPT	
Unit size (L x W x H)		Inches	41" x 17" x 34"	41" x 17" x 54"	41" x 17" x 62"	51" x 31" x 72"





RADIANT Air Conditioning is exclusively
distributed by PrimeLines, LLC
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