Standard System Definition:

Standard "Compact PV" Mag-Drive Power Supply System Specifications

The Standard "Compact PV" Residential Mag Drive Power Supply is a 12kW and 24kW "grid tied" system with transfer switching components. "Off grid" components are optional and not included with the basic set up. This system utilizes 48VDC charge components with AC inverter(s) and on board transfer switch.
The system is designed to accommodate 24/7 continuous duty operation. If the customer's calculated load demand exceeds the daily load provisions of the Standard "Compact PV" Mag Drive Power Supply, the systems transfer switch, seamlessly returns energy supply to the grid provider "utility", until the load usage stabilizes and returns within designed operating range.

The Standard "Compact PV" Mag Drive Power Supply also uses high quality deep cycle batteries. The systems battery storage is designed for greater efficiency and has been built for a maximum threshold of 45% discharge to minimize overall charge requirements and extend battery life.

Commercial Standard "Compact Solar PV" Mag Drive Power Supply system's range from 50kW to 250kW and will have higher DC outputs to accommodate inverter input requirements.

System configuration/placement assumptions-

- High quality SLA / AGM batteries used for residential systems
- Standard cabling from Charge Control Unit to Battery Array. Battery Array TBD by customer off take requirements
- Average system configurations will always be more cost effective than a typical solar PV placement of equal output with storage
- Systems do not include outdoor/weather proof enclosures (but will be provided based on customer requirements)
- 5 year end to end system warranty (extended warranty available)
- Estimated 10 year system life cycle (average battery life based on AIP selected battery quality 10 years)
- Average input requirement in terms of watts roughly 10% of charge

circuit output hourly (may vary based on final customer use requirements) NOTE: Either AC or DC input can be accommodated

- Average operating environmental temperature ranges [-20F to 150F] Average system operating temperature <150F
- No specific environmental issues or concerns beyond the standard use of industrial SLA, AGM or other marine or solar battery

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12kW Power Supply

48VDC charge input/battery voltage
Charging capacity (max) – 1200
Watts/hr.
(1) 12kW 240VAC output single phase inverter (pure sine wave) w/transfer switch
(Optional) – Stationary or mobile (casters) available on all units
Schneider C-60 Charge Controller

Charge Unit Dims. H = 34" x L = 48" x W = 30"
Charge Unit Weight (est.) 250 lbs
300W PV panels (3-4)

Battery Rack (stationary or mobile specified by customer)
Qualified battery models selected for this system: Rolls S-605, Trojan, Fullriver (quantity 8)

24kW Power Supply

48VDC charge input/battery voltage
Charging capacity (max) – 2400
Watts/hr
(2) 12kW 240VAC output single phase inverter (pure sine wave) w/transfer switch
(Optional) – Stationary or mobile (casters) available on all units
Schneider C-60 Charge Controller

Charge Unit Dims. H = 34" x L = 48" x W = 30"
Charge unit weight (est.) 250 lbs
300W PV panels (4-6)

Battery Rack (stationary or mobile specified by customer)

Qualified battery models selected for this system: Rolls S-605, Trojan, Fullriver (quantity 16)

Commercial Systems:

50kW Power Supply

200-300 VDC charge input/battery voltage
Charging capacity – 5000 Watts/hr
240/480 VAC output 3 phase inverter (pure sine wave)
Transfer switch(s)

Charge Unit Dims. H = 80” x L = 35” x W = 29” (double stacked individual units)
Charge unit weight (est.) 450 lbs

Battery Rack (stationary)
Battery Model Selected for this system: TBD based on customer requirements
Possible battery options are Absolyte GP, Deka Unigy, Aquion
Standard 10’ or 20’ Sea Container

100kW Power Supply-Call for quote
150kW Power Supply-Call for quote
200kW Power Supply-Call for quote
250kW Power Supply-Call for quote

All units will be tested in factory post assembly for not less than 5 consecutive days under customer identified load to insure appropriate field performance. Pre-delivery load test results provided to customer for system approval prior to delivery.

Note: Power Supply Pricing and final specification depend on placement requirements