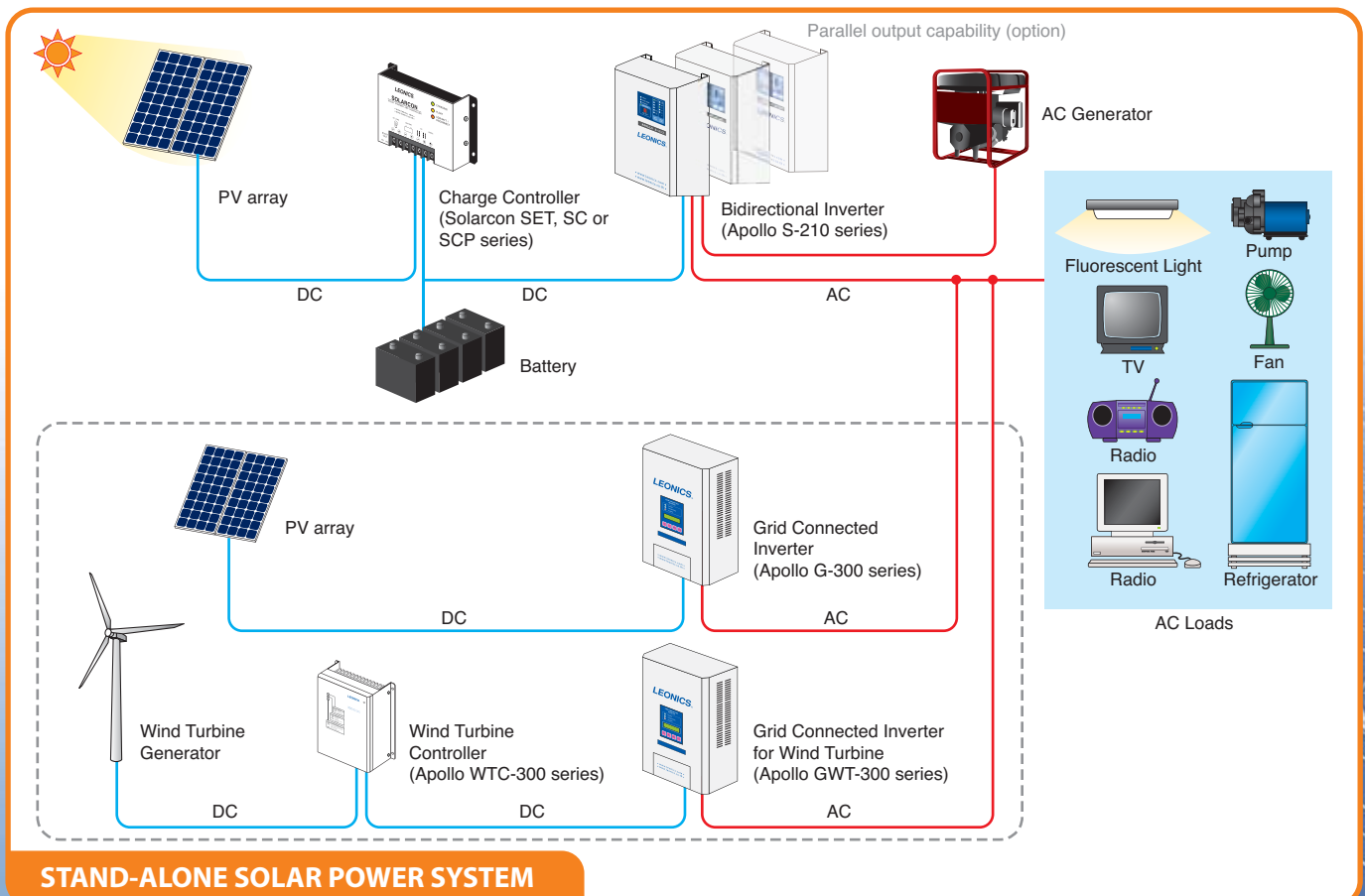


## APOLLO S-210

### BIDIRECTIONAL INVERTER



- High efficiency bidirectional inverter with built-in output transformer
- High speed automatic transfer switch (4 msec.) included
- Stable output voltage and frequency
- Full protection for overload, short circuit and over temperature
- Automatic low battery shutdown to protect battery
- Reverse polarity protection
- ISO 9001 and ISO 14001 certified factory
- Cooling fans with automatic speed controller
- 3-stages charging to provide quick and safe charging for battery
- LCD display and Data Logging (option)
- Parallel output capability (option)
- Battery temperature compensation (option)
- PC-communication with monitoring software (option)
- 2 years warranty (option for 3 and 5 years)
- Wall mount, 19 inch rack mount and tower case



## APOLLO S-210 series BIDIRECTIONAL INVERTER

### SPECIFICATIONS

| MODEL                        |                               | S-210A                                                                                                        | S-211A            | S-211B                                                                                                             | S-212B            | S-213B<br>S-213B/RM | S-215B<br>S-215B/RM | S-216B<br>S-216B/RM | S-211C<br>S-211C/RM | S-213C<br>S-213C/RM | S-215C<br>S-215C/RM | S-216C<br>S-216C/RM | S-217C              | S-218C<br>S-218C/RM | S-219C          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| INPUT                        |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inverter mode                | Nominal voltage               | 12 Vdc                                                                                                        |                   | 24 Vdc                                                                                                             |                   |                     |                     | 48 Vdc              |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Voltage range                 | 10.5 - 14.5 Vdc                                                                                               |                   | 21 - 29 Vdc                                                                                                        |                   |                     |                     | 40 - 58 Vdc         |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charger mode                 | Nominal voltage               | 220 Vac                                                                                                       |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Voltage range                 | 176 - 265 Vac                                                                                                 |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OUTPUT                       |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inverter mode                | Power continuous<br>(Pf. = 1) | 150 VA /<br>150 W                                                                                             | 300 VA /<br>300 W | 500 VA /<br>500 W                                                                                                  | 800 VA /<br>800 W | 1 kVA /<br>1 kW     | 1.5 kVA /<br>1.5 kW | 2 kVA /<br>2 kW     | 500 VA /<br>500 W   | 1 kVA /<br>1 kW     | 1.5 kVA /<br>1.5 kW | 2 kVA /<br>2 kW     | 2.7 kVA /<br>2.7 kW | 3.5 kVA /<br>3.5 kW | 5 kVA /<br>5 kW |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Max. surge power              | 200%                                                                                                          |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Voltage                       | 220 Vac ± 1%                                                                                                  |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Frequency                     | 50/60 Hz ± 0.1% (crystal control)                                                                             |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Wave form                     | Pure sine wave                                                                                                |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Total harmonic distortion     | < 3%                                                                                                          |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charger mode                 | Nominal                       | 12 Vdc                                                                                                        |                   | 24 Vdc                                                                                                             |                   |                     |                     | 48 Vdc              |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Charging current              | 7 A                                                                                                           | 14 A              | 12 A                                                                                                               | 20 A              | 24 A                | 30 A                | 40 A                | 6 A                 | 12 A                | 18 A                | 24 A                | 32 A                | 38 A                | 52 A            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SYSTEM                       |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Max. efficiency              |                               | > 80%                                                                                                         |                   | > 82 %                                                                                                             |                   |                     |                     | > 85%               |                     | > 90%               |                     |                     |                     | > 95%               |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Protection                   |                               | Over current / Overload / Over temperature / Short circuit / Under voltage                                    |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| INDICATOR                    |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LED                          |                               | Status / Battery level /<br>Overload / Fault                                                                  |                   | Load level / Over load / Battery level / Low battery / Fault / Over temperature / Charger status / Inverter status |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LCD                          | With data logging             | Option (Inverter voltage & current / Inverter frequency / Battery voltage & current / Load voltage & current) |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALARM                        | Buzzer                        | Low battery / Over load / Short circuit / Over temperature                                                    |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OPERATING CONDITION          |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature                  |                               | 0 - 45°C                                                                                                      |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relative humidity            |                               | 0 - 95 % (Non - condensing)                                                                                   |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PHYSICAL                     |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dimension<br>(W x H x D)(cm) | Wall mount                    | 18.2 x 36 x 12.1                                                                                              |                   | 26 x 36 x 16                                                                                                       |                   | 29 x 51.5 x 22.5    |                     | 26 x 36 x 16        |                     | 29 x 51.5 x 22.5    |                     | 58 x 35.4 x 21.8    |                     | -                   |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Rack mount                    | -                                                                                                             |                   | -                                                                                                                  |                   | 48.2 x 22 x 50      |                     | 48.2 x 14 x 50      |                     | 48.2 x 22 x 50      |                     | -                   |                     | 49.2x31x47.5        |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Tower                         | -                                                                                                             |                   | -                                                                                                                  |                   | -                   |                     | -                   |                     | -                   |                     | -                   |                     | 60 x 86.5 x 46      |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weight                       | Wall mount                    | 8                                                                                                             | 8.5               | 18.5                                                                                                               | 20.5              | 20.5                | 27                  | 18.5                | 20.5                | 26                  | 27                  | 40.5                |                     | -                   |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Rack mount                    | -                                                                                                             |                   | -                                                                                                                  |                   | 24                  | 28                  | 29                  | 23                  | 25                  | -                   |                     | 40.5                |                     | -               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                              | Tower                         | -                                                                                                             |                   | -                                                                                                                  |                   | -                   |                     | -                   |                     | -                   |                     | -                   |                     | 90                  |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CONFORMANCE                  |                               |                                                                                                               |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design regulation            | Safety regulation             | AS 3100                                                                                                       |                   |                                                                                                                    |                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice.

Authorized Distributor

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