Commodity : SAS (Solar Array Simulator)

- H/W :Solar Array Simulator
- S/W : Controller (To control SAS)
- Rack

1. Delivery

-System Complete : Within Five Months after Contract

① On delivery H/W and S/W separated :

→ After H/W delivered first, S/W Acceptance Test shall be completed within Two months.

② On delivery H/W and S/W combined :

→ Acceptance Test shall be completed within Three months since the Contract date.

2 Functional Requirement

2.1 Power Characteristics

1) Voc : > 101.58V
2) Isc: > 24.05A
3) Vmp : 92V
4) Imp : 23.51A
5) Pmax : > 2163.09W
6) MPPT Accuracy : 2%
7) MPPT Response Time

Peak Voltage response : shall be guaranteed up to 200 Hz
Peak Current response : shall be guaranteed up to 200 Hz
Peak Power response: shall be guaranteed up to 400Hz

2.2 Communication

1) 10/100 Base-T Ethernet LAN Interface
2) GPIB interface Standard shall be provided

2.3. Protection Features

1) Over-voltage, Over-current, Over-temperature protection

2.4. System Control Tools

1) In order to Control the Configuration, Parameter Setting and Monitoring, System Control Tools shall be provided.
2) The display figure of the System Control Tools shall be designed as like the existing SAS (KARI - Old Model). (Output Power Display, Alarm, etc)
3) Access Mode shall has two control mode - Local Mode and Remote Mode.

2.5. Server Control allows access to the System
1) SAS shall be able to be accessed from Server such as another equipment.

2.6. The interface (including S/W) between PACE (Power And Control Equipment - KARI having) and SAS shall be provided.

2.7. The hardware interface of SAS shall be concerned for utilizing the existing cables (Power Cables and Monitoring CAbles).

2.8. SAS Basic H/W Specification
1) Power : 380 VAC 3Ø 5Wire
2) Output Power shall be assigned to Connector J1 and the Type of connector shall be 31pin Circular Socket with the equivalent level to Mil-std.
3) Power Status, One of the Communicating information between PASE and SAS, shall be utilized as the equivalent level to Mil-std. The Connector shall be 19 Pin Circular Pin Type.

2.9 Rack Manufacture
2.9.1 Rack shall be manufactured under the specifiaction of EIA-RS310-C, IEC-297-1 and DIN-4149.
2.9.2 The size of the Rack shall be designed as the following figure 2. Rack Conceptual Design diagram.
1) One Bay 19inch
2) I-Bolt (M12) shall be installed at top of the rack.

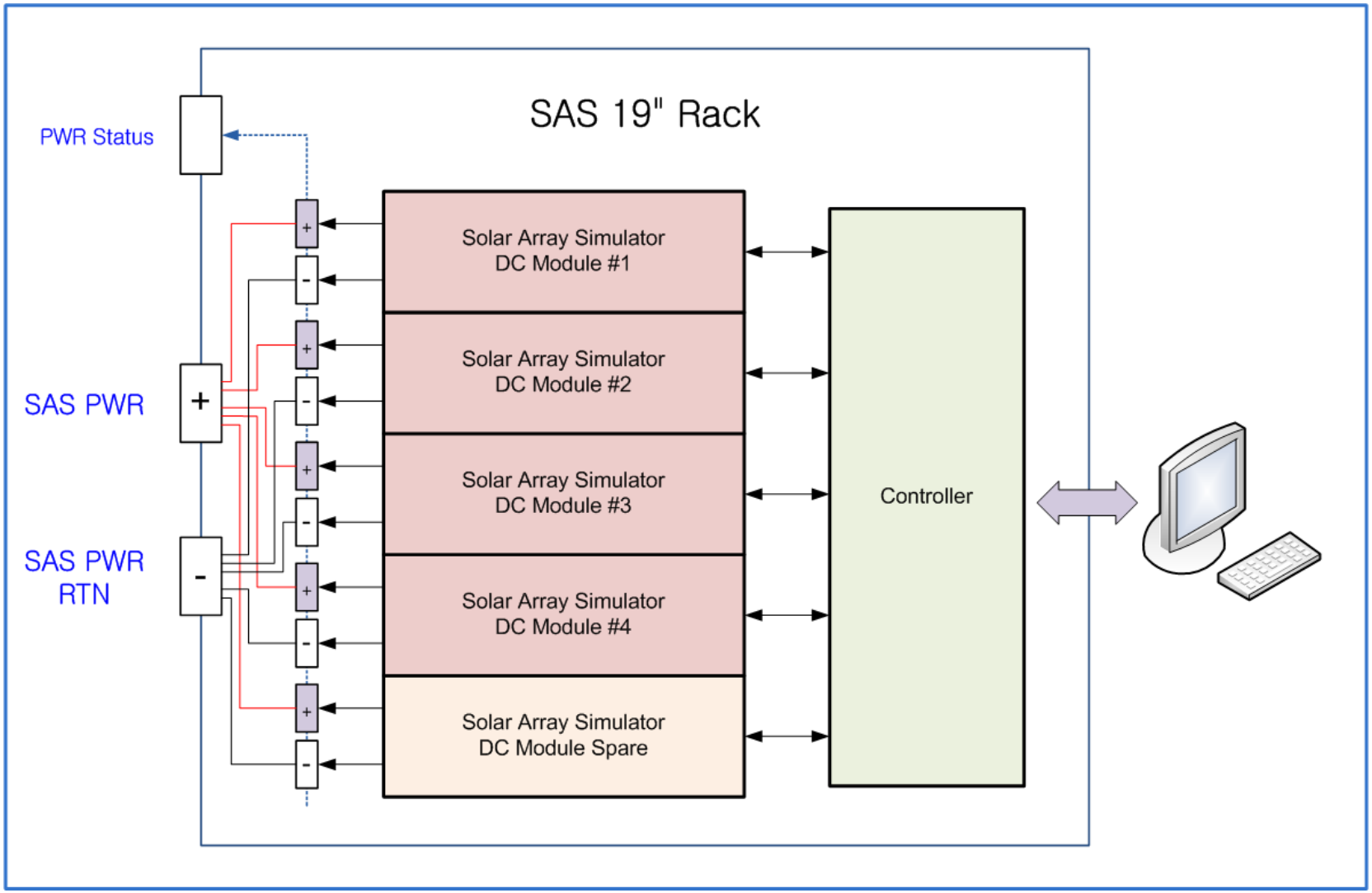

Figure 1. SAS (Solar Array Simulator) Block Diagram

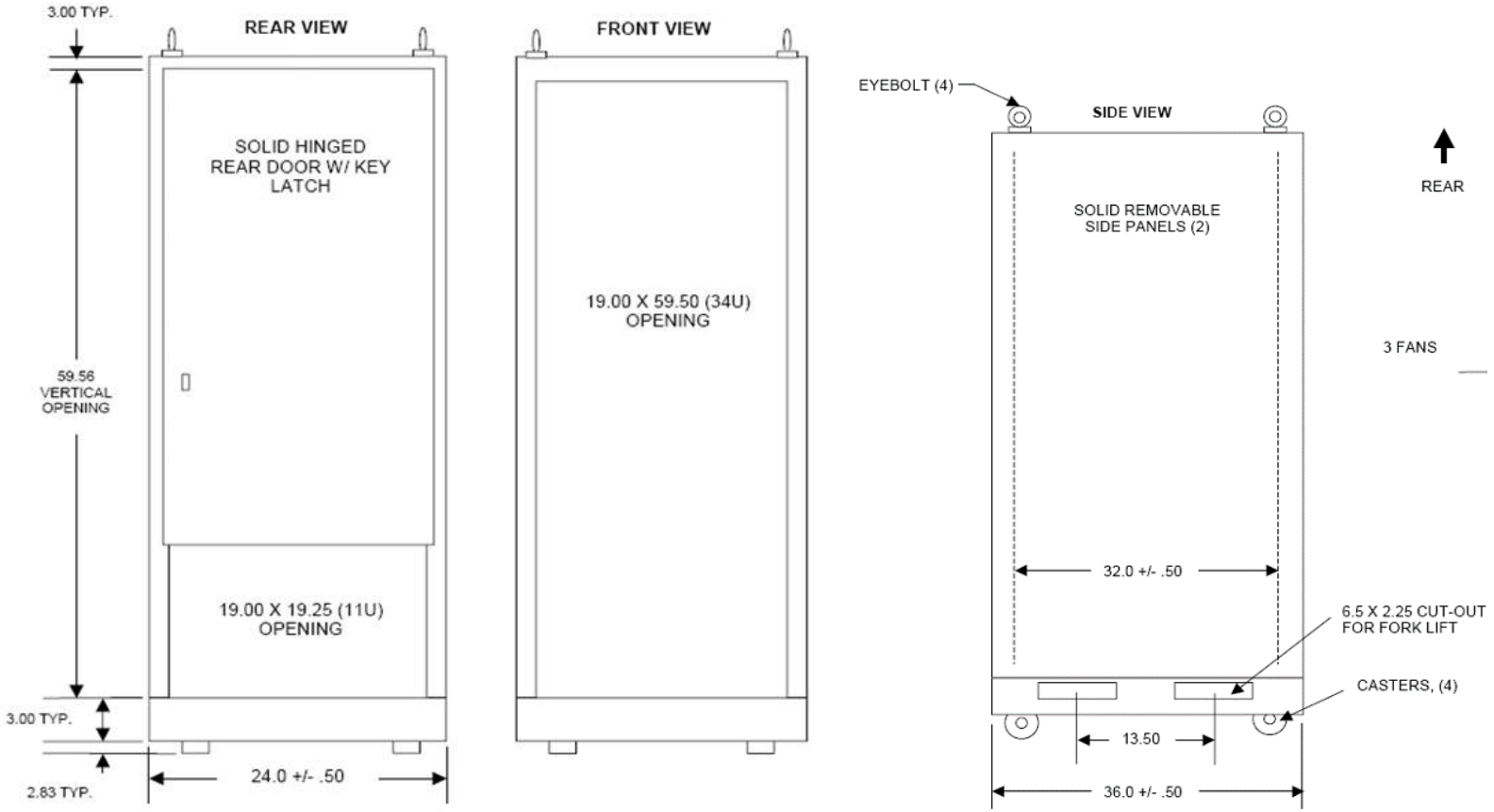

그림 2 Rack Conceptual Design Diagram