



# Mysine 2.0 : Hybrid Solar PV Products



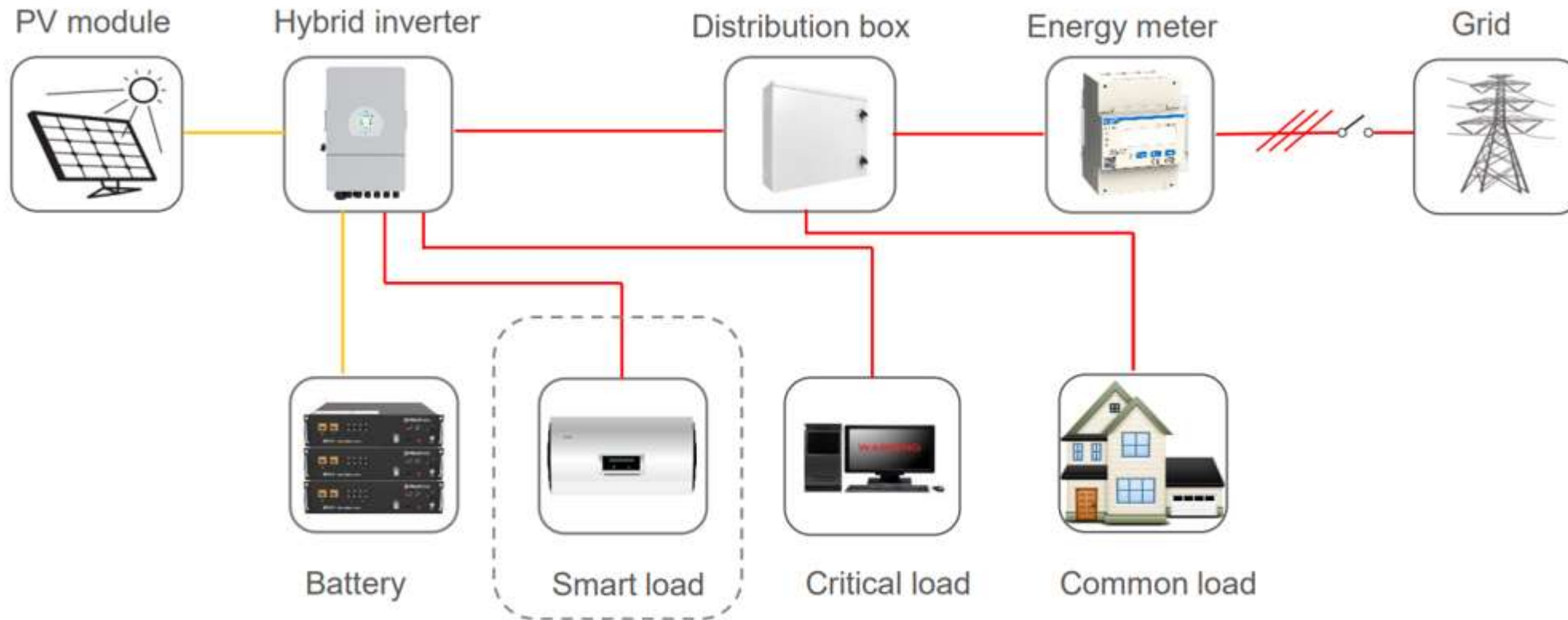
Key features	
<ul style="list-style-type: none"> <li>Hybrid inverter</li> </ul>	<ul style="list-style-type: none"> <li>Back-up during grid outage from battery as well as solar (like off-grid)</li> <li>Back-up for heavy load with inrush current (not present in off-grid)</li> <li>Exports excess power to grid (not present in off-grid)</li> <li>Seamless changeover in case of power outage, no power disruption (not available in off grid)</li> </ul>
<ul style="list-style-type: none"> <li>Efficient Li Ion Battery</li> </ul>	<p>As compared to lead acid batteries:</p> <ul style="list-style-type: none"> <li>~2x no of cycles and service life</li> <li>Compact, occupy less space</li> <li>Less maintenance – peace of mind</li> <li>~50% less battery fixed losses</li> <li>Total cost of ownership is 15-20% less than lead acid (<i>though initially more costly</i>)</li> </ul>
<ul style="list-style-type: none"> <li>Integrated Hybrid Solution</li> </ul>	<ul style="list-style-type: none"> <li>Aesthetically pleasing, niche &amp; premium solution</li> </ul>
<ul style="list-style-type: none"> <li>Smart Features</li> </ul>	<ul style="list-style-type: none"> <li>Advanced energy analytics to customer, inc battery charge status, real time power flow, energy consumption breakup between grid / PV etc</li> <li>Basic intelligent Load control</li> <li>Fast changeover (UPS)</li> <li>Touch display</li> </ul>



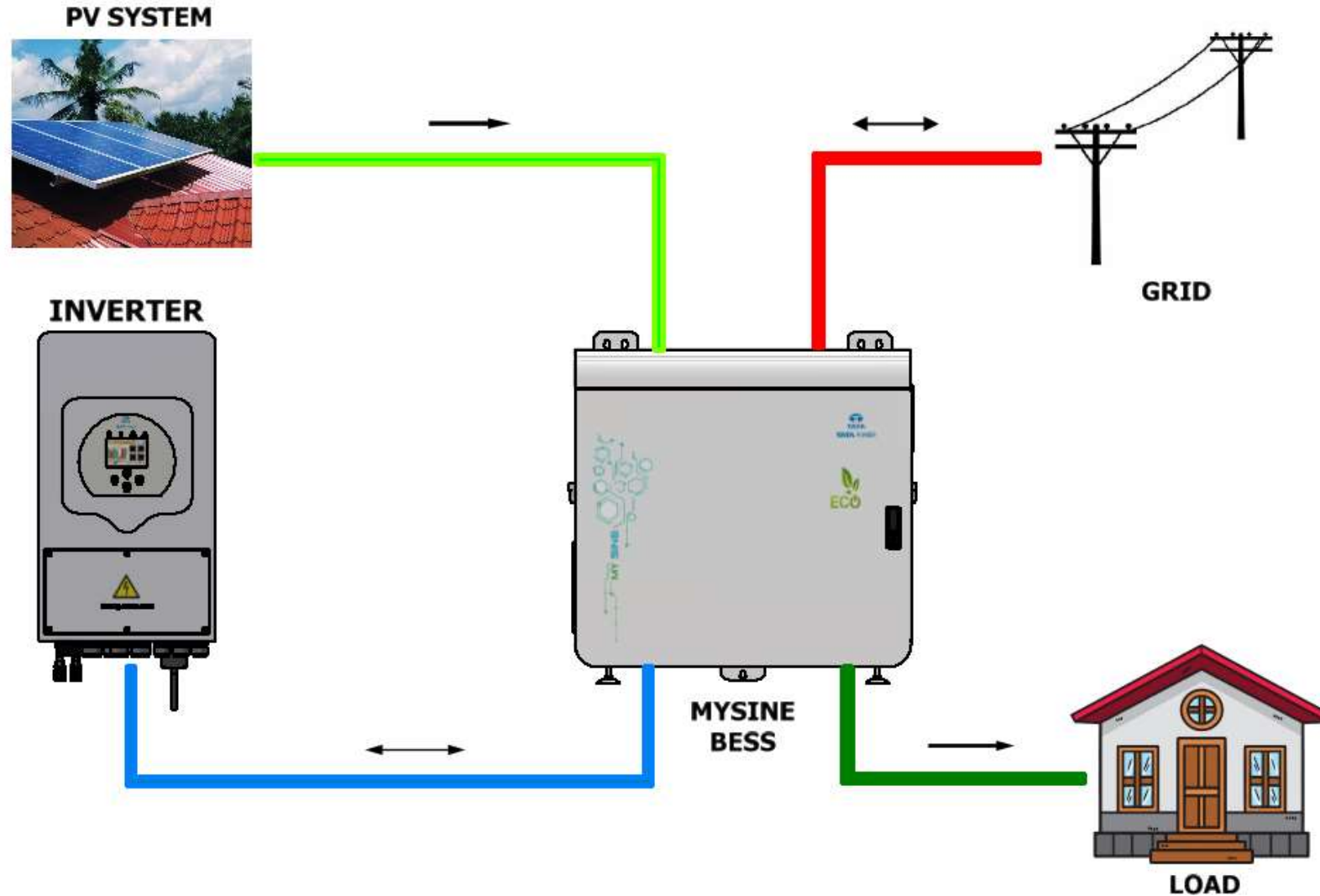
mySine2.0 photo

mySine2.0 has **multiple benefits beyond the regular off-grid system** for premises with **power outage**, and is designed as a **premium solution**

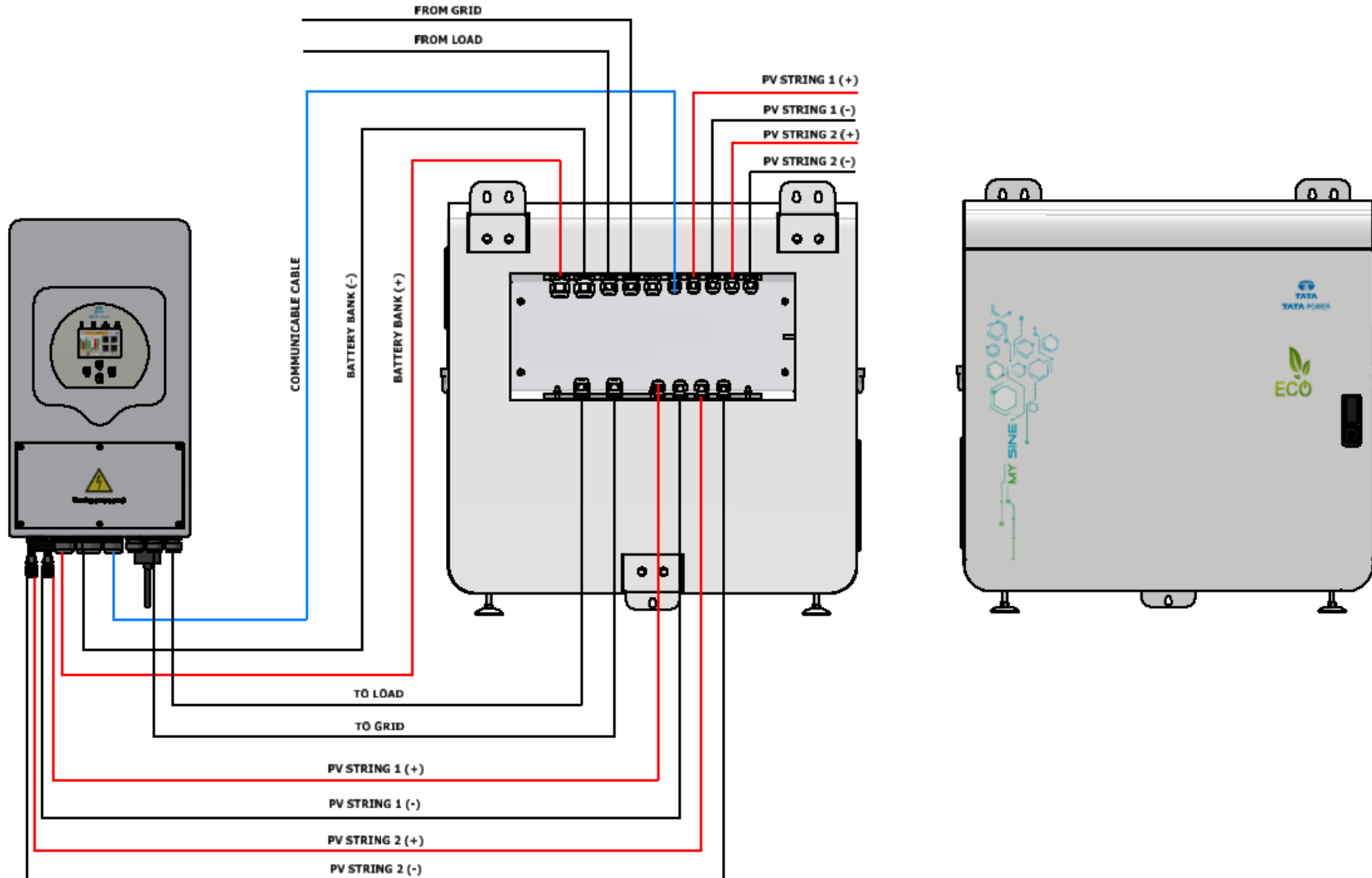
# Block Diagram - Hybrid System



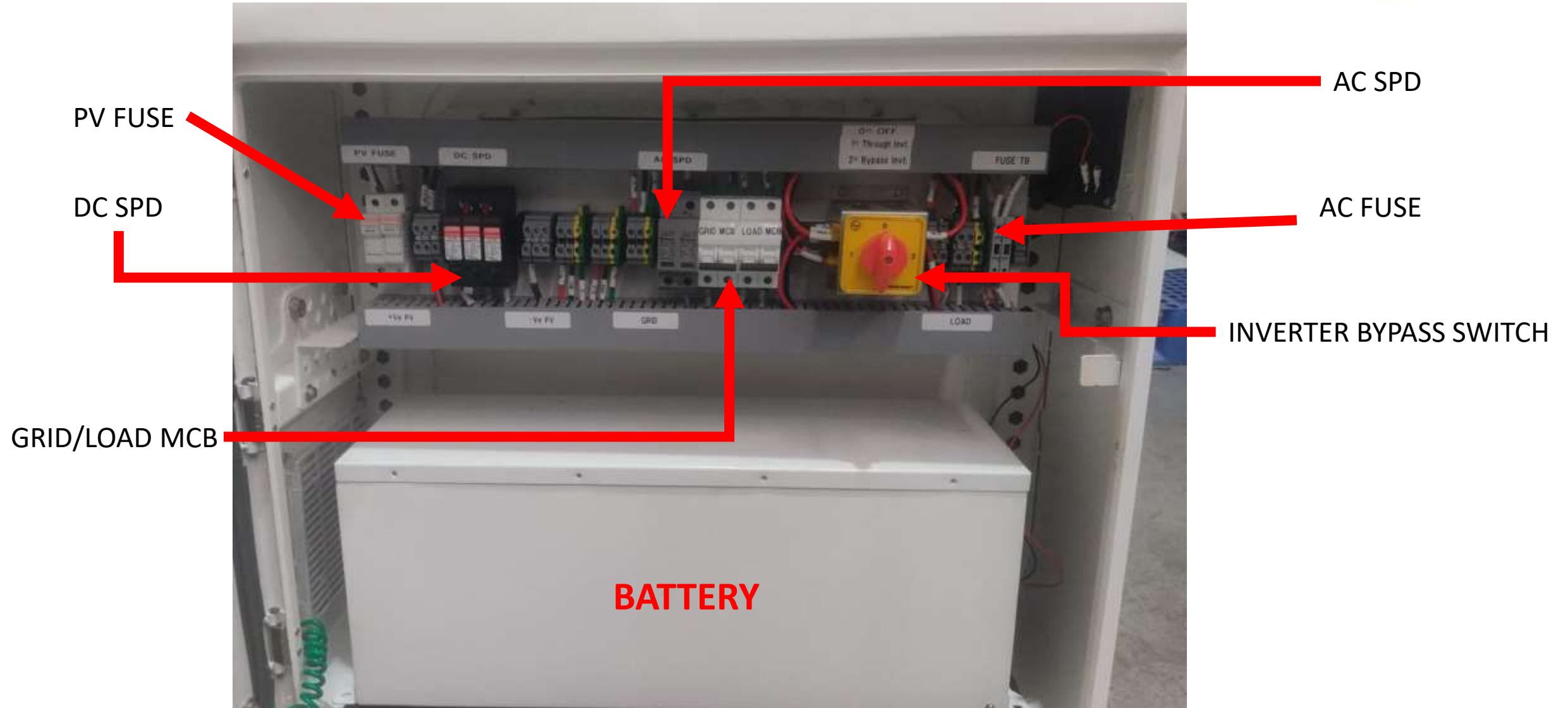
# Mysine2.0 : Block Diagram



## Mysine2.0 : G A



# Inside MySine 2.0



# MySine2.0 Product Configuration



S/n	Description	Specifications
	<b><u>Battery Parameters</u></b>	
1	Battery Chemistry	LiFePO <sub>4</sub>
2	Battery Capacity	100Ah
3	Operating voltage	44.8~57V
4	Energy	5.12kWhr
5	Usable Energy	4.09 kWhr at 35°C, 0.5C
6	Depth of Discharge	95%
7	Operation Cycle Life	6000 Cycles( 25°C)
	<b><u>Inverter Parameters</u></b>	
1	PV Input Power	6500W
2	No of MPPT Tracker/ No of Strings MPP Tracker	2/1+1
3	Maximum Operating PV input current	18+18A
4	Maximum Input Short – Current current	27+27A
5	Rated AC Input/ Output Active Power	5000W
6	Rated AC Input/ Output Current	22.8/ 21.8A
7	Rated AC Input/ Output Voltage	220/230 0.85 Un - 1.1 UnV
8	Power factor Adjustment range	0.8 leading – 0.8 lagging
9	Ingress Protection	IP 65
10	Weight	25kg
11	Dimensions	330Wx580Hx232D
12	Maximum Efficiency	97.6%
13	Warranty	8years

## Mysine 2.0

- 5kW, 3.5kW Hybrid Inverter (Single-phase, 230V)
- 5kWh Li-ion Battery (48V)
- MPPT Charge Controller (Dual)
- Wi-Fi & Mobile App Monitoring



Technical Specification		
Electrical	Capacity	5 kWh
	Maximum Power Rate	0.5P
	Cell Rating	100 Ah
	Battery Configuration	1p16s
	DC rated Energy	5.12 kWh
Performance & Safety	DC Round Trip Efficiency	~90%
	Battery Chemistry	LFP (Prismatic)
	Life cycle @25°C	6000 cycles
	Cooling	Forced Air Cooling
General Data	Weight	115 Kg
	Enclosure Dimensions (LxWxH)	350x750x785
	Enclosure Rating	IP54
	Operating Temperature Range	5°C~40°C







Inverter Size	Load %	Load (kW)	Backup Time (hours)	Suggested Loads
5 kW	30%	1.5	2 Hr, 30 min	Lights (2x LEDs, 35W each), 1 Ceiling Fan (60W each), 1 Fridge(200W), 1.5 Ton Inverter AC.
	50%	2.5	1 Hr 30 Min	Above + 1 Mixer Grinder, 1 Television, Lights (2xLEDs, 35W each), 2 Ceiling Fans
3 kW	30%	0.9	4 Hr, 30 min	1 Fridge (200W), 1 Television (100W), 1 Laptop, Lights(3XLEDs, 35W), 4 Ceiling Fans
	50%	1.5	2 Hr 30 min	Lights (2x LEDs, 35W each), 1 Ceiling Fans (60W each), 1 Fridge(200W), 1.5 Ton Inverter AC.



- The system can be configured remotely in various modes depending on application.
- **Multiple working modes:**
  - **Grid Tie mode**
  - **Zero Export mode**
  - **off-grid mode**
- **Grid connection / Disconnection**
  - **Time based**
  - **Battery Voltage**
- **Negligible switching time**
- **Grid Peak shaving**
- **DG sync**
- **Paralleling of inverters upto 16 inverters**



- **A full range of products 3.6/5Kw Single Phase output voltage of 230V//240Vac**
- **The DC/AC ratio of 1:3, saving investment on equipment.**
- **More higher charging and discharging power of 90A, 120A, for 3.6Kw, 5Kw, inverter respectively**
- **48V low voltage battery, built-in transformer for electrical isolation more security**
- **Independent Grid port, diesel generator port and backup load port, easy connection**
- **Built-in DG control interface and support DG charging the battery ensuing the system works 24X7**
- **Possibility of AC couple method to update existing solar system to energy storage system**



- **Support Max. 16 units parallel operation without additional accessory**
- **“Time of use” function, support 6 different time periods for charging and discharging battery**
- **4ms switching time - fast transfer from on-grid to off-grid mode, ensuring the traditional fixed frequency load equipment's works well**
- **Colorful touch screen and buttons, easy operation and maintenance**
- **Smart load application, expanding output interface**
- **Grid peak-shaving function, improving self-consumption ratio of solar energy**

## Time of Use

- Time of use”, time-dependent electricity tariffs, customers pay different prices for their energy consumption at different times of the day.
- For this situation, Deye hybrid inverter allows users to set time windows for charging and discharging the energy storage system. In this way, the behavior of the hybrid inverter can be adjusted in line with the time-dependent electricity tariffs, reducing electricity bills.

Time of use interface

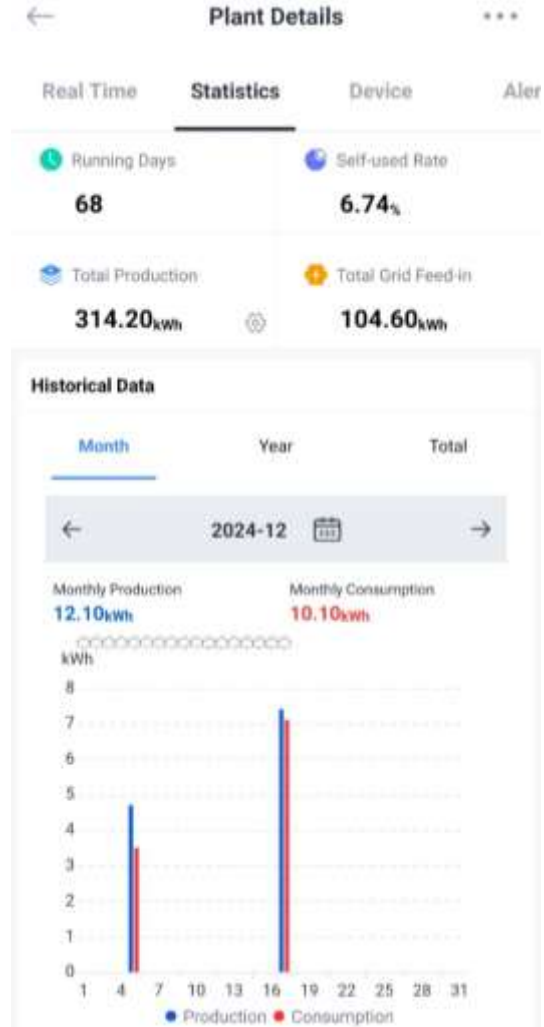
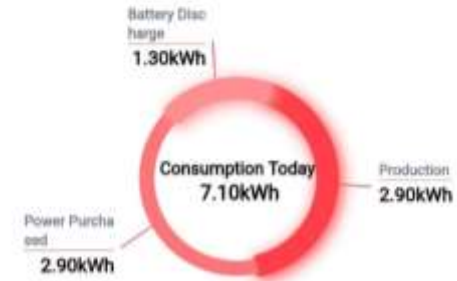
The screenshot displays the 'System Work Mode' interface of a Deye hybrid inverter. It features a table for configuring Time of Use (TOU) settings. The table has columns for 'Grid Charge', 'Gen', 'Time' (with start and end times), and 'Batt' (battery level). The 'Time' column is divided into two parts by a tilde (~). The 'Batt' column shows a fixed 80% value for all rows. To the right of the table are four control buttons: an upward arrow labeled 'Work Mode2', a downward arrow, a cross (cancel), and a checkmark (confirm).

Grid Charge	Gen	Time Of Use		Batt
		Time		
<input type="checkbox"/>	<input type="checkbox"/>	01:00	~ 5:00	80%
<input type="checkbox"/>	<input type="checkbox"/>	05:00	~ 9:00	80%
<input type="checkbox"/>	<input type="checkbox"/>	09:00	~ 13:00	80%
<input type="checkbox"/>	<input type="checkbox"/>	13:00	~ 17:00	80%
<input type="checkbox"/>	<input type="checkbox"/>	17:00	~ 21:00	80%
<input type="checkbox"/>	<input type="checkbox"/>	21:00	~ 01:00	80%



Real Time Statistics Device Aler

Production&Consumption ?





# MySine2.0 -- BOM



3kW -1ph WOMMS			
Part numbers	Description of Supply Items	Qty	UoM
8000010317	Solar PV module: 525 Wp, Monocrystalline	6	no
7000032503	DEYE Hybrid inverter + accessories	1	no
7000032608	TACO Mysine 5kWh battery with BMS and accessories	1	no
8100000790	MC4 FEMALE CABLE CONNECTOR	4	no
8100000791	MC4 MALE CABLE CONNECTOR	4	no
7000033088	EARTHING KIT, 1m 14mm cu bonded rod	3	no
7000020924	LIGTHENING ARRESTOR, 2M CONVENTIONAL	1	no

5.4kW -1ph WOMMS			
Part numbers	Description of Supply Items	Qty	UoM
8000010317	Solar PV module: 525 Wp, Monocrystalline	10	no
7000032503	DEYE Hybrid inverter + accessories	1	no
7000032608	TACO Mysine 5kWh battery with BMS and accessories	1	no
8100000790	MC4 FEMALE CABLE CONNECTOR	4	no
8100000791	MC4 MALE CABLE CONNECTOR	4	no
7000033088	EARTHING KIT, 1m 14mm cu bonded rod	3	no
7000020924	LIGTHENING ARRESTOR, 2M CONVENTIONAL	1	no

# MySine2.0 BOM -- Dealers Scope – 3kW-5kWhr



MySine2.0 BOM - 3kW-5kWhr			
DEALER SCOPE ITEMS			
7000009501	AC Cables - 3C 6 sqmm Cu	MTR.	20
7000015716	DC Cables - 1Cx4sq mm	MTR.	13
7000023943	1CX10 sq mm AL single strand Earthcable	MTR.	30
7000009206	SCREW, M4X15, CHEESE HEAD, SS 304	Nos	12
7000009026	NUT, M4, SS304	Nos	12
7000009077	WASHER,M4,FLAT,SS	Nos	12
7000009080	WASHER,M4,SPRING,SS	Nos	12
7000002059	TERMINAL, PIN, FOR 4SQ.MM CABLE, 316-20	Nos	6
7000009249	CABLE TIE, 292mm, PLTIM-M0, PANDUIT, OUTDOOR, UV RESISTANT, BLACK	Nos	30
8100002253	LABEL, WARRANTY	Nos	2
7000001914	TERMINAL, M8, RING FOR 10 SQ.MM CABLEM,	Nos	22
7000001945	TERMINAL, M4, RING FOR 4 / 6 SQ.MM, TYPE 7083	Nos	10
8100000016	PACKING COVER,POLYETHELENE,7"x10", ZIP LOCK	Nos	2
7000032021	Packing Box	Nos	1
7000032745	Fire-extinguisher, 4kG DCP type	Nos	1
	Installation accessories	Nos	1

MySine2.0 BOM-5kW-5kWhr			
DEALER SCOPE ITEMS			
7000009501	AC Cables - 3C 6 sqmm Cu	MTR.	20
7000015716	DC Cables - 1Cx4sq mm	MTR.	13
7000023943	1CX10 sq mm AL single strand Earthcable	MTR.	30
7000009206	SCREW, M4X15, CHEESE HEAD, SS 304	Nos	20
7000009026	NUT, M4, SS304	Nos	20
7000009077	WASHER,M4,FLAT,SS	Nos	20
7000009080	WASHER,M4,SPRING,SS	Nos	20
7000001880	TERMINAL, PIN, FOR 6SQ.MM CABLE, 316-20	Nos	6
7000009249	CABLE TIE, 292mm, PLTIM-M0, PANDUIT, OUTDOOR, UV RESISTANT, BLACK	Nos	30
8100002253	LABEL, WARRANTY	Nos	2
7000001914	TERMINAL, M8, RING FOR 10 SQ.MM CABLEM,	Nos	22
7000001945	TERMINAL, M4, RING FOR 4 / 6 SQ.MM, TYPE 7083	Nos	10
8100000016	PACKING COVER,POLYETHELENE,7"x10", ZIP LOCK	Nos	2
7000032021	Packing Box	Nos	1
7000032745	Fire-extinguisher, 4kG DCP type	Nos	1
	Installation accessories	Nos	1

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