


# Delta Electronics Frequently Asked Questions (FAQ)

## 1. What are the lead times for these products?

- a. Current expectations for the Delta ESS system are Q1 2022, after which the expected delivery timeline is 20-25 weeks.



- Delta Service Center in Los Angeles (DALA) provides Services supports for Delta Energy Infrastructure & Industrial Solutions products in United States.
- DALA is located in 14910 Summit Drive, Eastvale, CA 92880 with 75,000 sqft space for Office, Lab, Depot Repair and Warehouse

**DALA Service Center**

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    DALA[DALA Service Center] --- Warehouse[Warehouse Logistic]
    DALA --- Assembly[Assembly & Integration]
    DALA --- Field[Field Service Engineering]
    DALA --- Contact[Contact Center]
    DALA --- Depot[Depot Repair]
            
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**Warehouse Logistic**

- Material Management
- Logistic Service
- Order Fulfillment

**Assembly & Integration**

- Local Assembly
- Value Add Service

**Field Service Engineering**

- L2 Tech Support
- QC Inspection & Testing
- Commissioning
- CM & PM


**Contact Center**

- Warranty & RMA Management
- L1 Tech Support
- ADV Program management


**Depot Repair**

- IW & OW Repair

### Service Center Overview



- 40,000 sqft space for warehouse
- 25,000 space for Office, Lab & Depot Repair
- 4,000 Amps Power Capacity for full load test



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## 2. Who manufactures the PCS and battery cells and what is the cell chemistry?

- a. Delta Manufacture PCS and Battery cabinets. We partner with multiple battery companies, which include but not limit to Samsung SDI and BYD.

## 3. Where are the products made/assembled?

- a. Delta Products shipping to US are made in Taiwan. Samsung SDI battery are made in South Korea, BYD battery are made in China.

## 4. Can the unit provide back-up power or microgrid capabilities?

- a. Yes. Delta's PCS is capable of operating in grid-forming mode for back-up and/or microgrid applications. Microgrid capabilities require an additional microgrid controller. Inquire with your Energy Toolbase account manager for details.


## 5. What UL certifications does the ESS and its components have?

	UL Certification
Delta PCS	<ul style="list-style-type: none"> <li>- UL1741, UL1741SA, CA Rule 21, including phase 2 and phase 3, Hawaii HECO</li> <li>- CA SGIP approved</li> <li>- NY SIR (Standardized Interconnection Requirements) approved</li> </ul>
BYD (Available Q1, 2022)	<ul style="list-style-type: none"> <li>- UL1973</li> <li>- UL9540A</li> <li>- CA SGIP approved</li> </ul>
Samsung SDI (available Q1, 2022)	<ul style="list-style-type: none"> <li>- UL1973, UL940A, UL9540, NFPA855 Compliance</li> </ul>

# Delta Electronics Frequently Asked Questions cont.

## 6. What are response and replacement times on breaks or malfunctions?

a. Depending on SLA levels as shown below:



### RMA Replacement SLA by Tier Level

- Service Level Agreement
  - Delta commits to SLA within 48 hours ~ 7 business days to ship the replacement unit\*.
  - All levels of service requests will be processed based on the Service Response Time outlined in the table below:

Service Type	Delta Hours Of Operations	Outside Hours of Operations
Contact Center - Calls	1 business hour	within 4 business hours by following business day
Contact Center - Emails	8 business hours	within 8 business hours by following business day
RMA Issuance	within 24 hours	within 24 hours by following business day
RMA Replacement - Severity 1	ship out within 48 hours	ship out within 48 hrs by following business day
RMA Replacement - Severity 2	ship out within 5 business days	ship out within 5 hrs by following business day
RMA Replacement - Severity 3	ship out within 7 business days	ship out within 7 hrs by following business day

Severity	Definition
1	System is down and completely unusable, no backup is available
2	Major feature/product failure; The system is usable but severely limited
3	Minor feature/product failure, performance degradation/not impacting production

- All service requests received by DALA will be prioritized based on the Severity Level set per agreement.

\*Based on availability of local stocks.  
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## 7. How long is the warranty and what does it cover?

a. Please find the warranty information from the table below:

Equipment	Warranty	Coverage
PCS	5 years, extension to 10 years	Material
Battery Cabinet	5 years, extension to 10 years	Material
Battery Module - BYD	10 years	Material
Battery Module - Samsung	2 years extension to 10 years	Material

## 8. Does the product come with HVAC or fire suppression?

a. Both BYD and SDI battery cabinets have HVAC and fire suppression (NFPA 855 compliant).

## 9. What is the physical size of the unit(s)?

a. Please refer to the data sheets of the PCS and battery cabinets for different configurations.

## 10. What are the O&M costs? Are there any O&M requirements for the asset owner?

a. Delta provides customers an O&M schedule for preventative maintenance. The actual cost varies depending on the local labor cost and other factors.

## 11. Are there recommended spare parts that should be purchased?

a. Delta provides customers a list of spare parts based on the products that are ordered.

## 12. Does Delta and/or Energy Toolbase provide commissioning support?

a. Delta provides commissioning service included in the system cost. It covers 1 technician for 1 day onsite.

## 13. What is the battery degradation?

a. The actual degradation is affected by many factors such as load profile, number of cycles, average SOC, etc. For modeling purposes, Energy Toolbase applies an average annual degradation rate of 2% which can be adjusted based on specific ESS dispatch profiles.

## 14. Does Delta have any preferred or approved EPC's they recommend for installation?

a. No, Delta works with multiple local installers.