

# SUPERMOON

Powering modern work and life

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## DATA CENTRE SOLUTIONS

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## **Company Mission - Powering Modern Work & Life**

Supermoon has been powering and lighting up modern infrastructures, public facilities, offices and contemporary homes for over two decades.

## **The Supermoon Offers**

Supermoon brings total data centre solutions to help IT teams, contractors and system integrators build reliable and energy-efficient Critical Power and related data centre & server room set-up.

## **Supermoon HK's Data Centre Strategy Services**

Your data centre must be inherently flexible, reliable, cost- and energy-efficient in order to meet stringent corporate and client requirement and support business deliverables. Supermoon helps you match these requirements with high quality and reliable distribution equipment, uninterrupted power supply (UPS) and DC network power system, allowing you to provide users a steady flow of high-quality power and continuous data processing.

Supermoon's one-stop data centre solution gives you peace-of-mind as it:

- maximizes network flexibility
- minimizes carbon footprint for your data centre and server room
- supports targeted implementation and assures maximum reliability
- is designed to optimize operating efficiency
- gives maximum uptime and fewer faults
- provides tailor-made after-sales services and technical supports



'Green' is the standard of business sustainability and corporate care nowadays. For your data centre to maintain energy-efficiency and reduce carbon footprints, the data centre Power Usage Efficiency (PUE) will give you valuable insights into your efficiency efforts. PUE measures how effective your data centre is in terms of usage of input power. The larger the number, the less efficient your utilization is. Our experienced data centre solution experts provide technical advice for PUE improvement right from the design stage through the operation stage, helping you realize maximum business benefits.

## Critical Equipment & Products by Supermoon

Supermoon is one of the largest electrical and lighting distributors in Hong Kong, Macau and China with wholesale, professional end-user, project and retail arms. With outlets and warehouses spanning Hong Kong and major cities in China, you never have to worry about our stock availability.

*Contact us for more details.*

### Critical Power Solution

*(UPS / Precise Power Distribution / Static Transfer Switch / Active Harmonic Filter)*

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### Battery System

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### Cabling System

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### Electrical Distribution System

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# Data Centre Technology – Tier Classifications and Standards

The Telecommunications Industry Association is a trade association accredited by ANSI (American National Standards Institute). In 2005 it published ANSI/TIA-942, Telecommunications Infrastructure Standard for Data Centres, which defined four levels (called Tiers) of data centres in a thorough, quantifiable manner. The most stringent level is a Tier 4 data center, which is designed to host mission critical computer systems, with fully redundant subsystems and compartmentalized security zones controlled by biometric access controls methods. Another consideration is the placement of the data center in a subterranean context, for data security as well as environmental considerations such as cooling requirements. The higher the tier, the greater the availability. The levels are:

Tier Level	Requirements
1	<ul style="list-style-type: none"> <li>- Single non-redundant distribution path serving the IT equipment</li> <li>- Non-redundant capacity components</li> <li>- Basic site infrastructure with expected availability of 99.671%</li> </ul>
2	<ul style="list-style-type: none"> <li>- Meets or exceeds all Tier 1 requirements</li> <li>- Redundant site infrastructure capacity components with expected availability of 99.741%</li> </ul>
3	<ul style="list-style-type: none"> <li>- Meets or exceeds all Tier 1 and Tier 2 requirements</li> <li>- Multiple independent distribution paths serving the IT equipment</li> <li>- All IT equipment must be dual-powered and fully compatible with the topology of a site's architecture</li> <li>- Concurrently maintainable site infrastructure with expected availability of 99.982%</li> </ul>
4	<ul style="list-style-type: none"> <li>- Meets or exceeds all Tier 1, Tier 2 and Tier 3 requirements</li> <li>- All cooling equipment is independently dual-powered, including chillers and heating, ventilating and air-conditioning (HVAC) systems</li> <li>- Fault-tolerant site infrastructure with electrical power storage and distribution facilities with expected availability of 99.995%</li> </ul>

The difference between 99.671%, 99.741%, 99.982%, and 99.995%, while seemingly nominal, could be significant depending on the application. Whilst no down-time is ideal, the tier system allows the below durations for services to be unavailable within one year (525,600 minutes):

- Tier 1 (99.671%) status would allow 1729.224 minutes
- Tier 2 (99.741%) status would allow 1361.304 minutes
- Tier 3 (99.982%) status would allow 94.608 minutes
- Tier 4 (99.995%) status would allow 26.28 minutes

Supermoon provides the right solutions for dependable Data Centre infrastructures that meet key operational, economic, energy saving and ANSI/TIA-942 requirements.



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