

Modular Data Center

FusionModule800 Smart Small Data Center

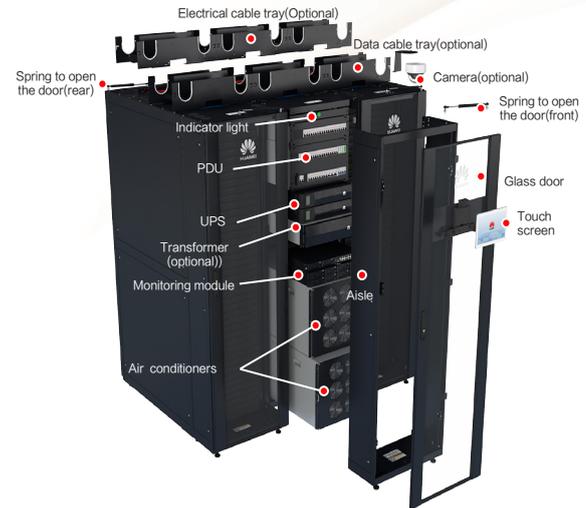


Introduction

FusionModule800 Smart Small Data Center is a new-generation data center solution. It is integrated with PDU, UPS, monitoring, cooling and rack system in a comprehensive rack in order to save space. IT racks can be deployed flexibly on both sides. A single module can support maximum 12 racks and 25kW IT load (T3: IT Load \leq 21kW), the maximum power density for each rack is 7kW/ R(T3: \leq 6kW). Cold and hot aisle containment to saving Energy and reduce noise.

Application Scenarios

- Finance, Education, Health Care, Public Security, SMEs, Retailing & Merchandising, Edge DC, etc.
- Indoor modular data center



FusionModule800 Architecture

Features & Value

Simple

- Integrated cooling, PDU, UPS and monitoring system in one rack, footprint saving.
- All components are prefabricated in factories. only need to be combined onsite, hardware are installed in 4 hours, 2 days business on line.
- The local PAD supports facial recognition, easy login without password.
- Support online maintenance through hot swap switches, local PAD indicates the PUE through intelligent power distribution(only for BC6 and BC7).

Efficient

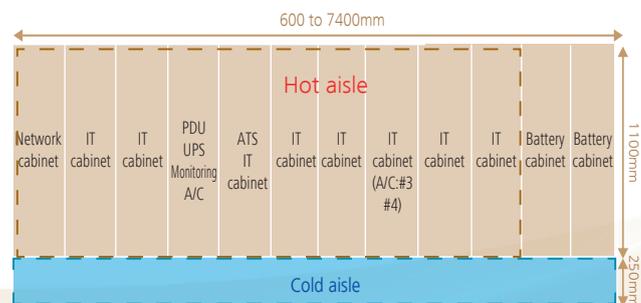
- Rack-mounted air conditioner saves at least one rack footprint.
- Cold and hot aisle containment, saving energy and reducing noise.
- Improve the efficiency of cooling system through DC variable frequency compressor, wet film humidification, cold and hot aisle containment.
- Real-time monitoring of mobile apps, centralized monitoring of multiple sites.

Reliable

- Dehumidifying at min. 10% IT load avoids condensation risk.
- Automatic shutdown to prevent fire caused by battery overheating.
- Open rack doors automatically in case of cooling failure and the temperature exceeds the limit.
- When detect the fire alarm automatically open the rear door to let the fire extinguishing gas enters.



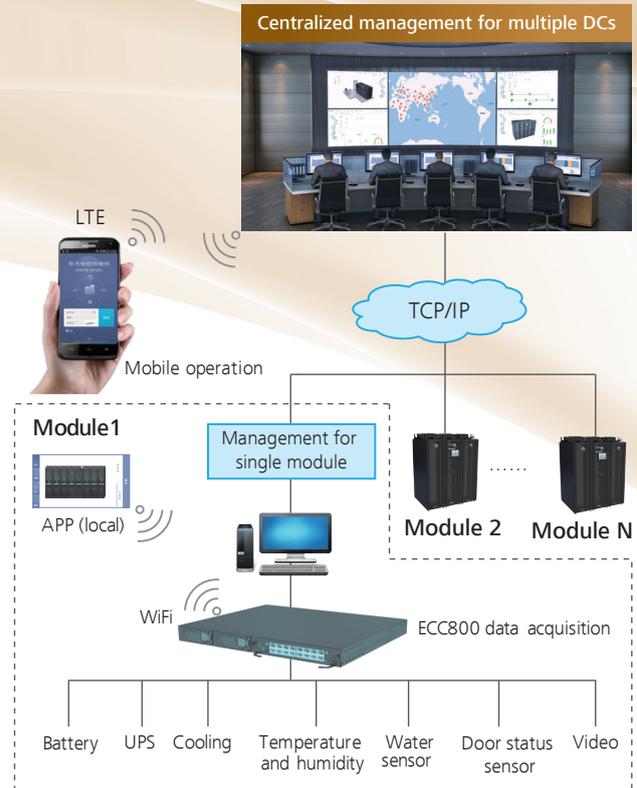
FusionModule800 Application



Maximum configuration: IT load 17~25KW(T1/LT), 14kW~21kW(T3)

Specifications

| System features | |
|---|---|
| Power system | 380/400/415Vac, 50Hz, 3Ph+N+PE |
| Aisle containment | Cold and hot aisle containment |
| System protection level | IP20 |
| Ambient temperature | T1*: -20℃~+45℃; T3*: -10℃~+55℃; LT*: -40℃~+45℃; |
| Maximum cabinet quantity for a module | 12 |
| Quantity of IT cabinets | 0~10 |
| Maximum IT load | 25kW (T1* & LT*) 21kW (T3*) |
| Max power density /Rack | 7kW (T1* & LT*) 6kW (T3*) |
| IT cabinet weight | Static load 1500kg, Dynamic load 1000kg |
| Total Dimensions (H × W × D mm) | 2000 × (600-7400) × 1350 |
| Cooling system | |
| Power system | 220/230/240Vac, 50Hz, 1Ph+N+PE |
| Cooling capacity | 12.5kW ^a |
| Operating temperature of the outdoor unit | T1*: -20℃~+45℃; T3*: -10℃~+55℃; LT*: -40℃~+45℃; |
| Configuration | N, N+1 |
| Cooling mode | Direct expansion air-cooled |
| Installation | Rack- mounted |
| Air volume | 2600m ³ /h |
| Air supply mode | Front supply, rear return |
| Power Supply and Distribution System | |
| SPD | CLASSII/C, In 20kA, I _{max} 40kA, 8/20us |
| Input power | Single or dual inputs |
| UPS capacity | 10kVA 20kVA |
| UPS configuration | N, N+1 |
| UPS output power factor | 0.9 |
| UPS rated input voltage | 380/400/415Vac, 50/60HZ, 3Ph+N+PE |
| UPS input voltage range | 138~485Vac, 40~70Hz, 3Ph+N+PE |
| UPS rated output voltage | 220/230/240Vac 380/400/415Vac 50/60Hz, 1Ph+N+PE 50/60Hz, 3Ph+N+PE |
| UPS efficiency | 94.5% 95% |
| Battery backup mode | Battery pack, battery cabinet, battery rack |
| Backup time | 15min/30min |
| rPDU (Optional) | No-Intelligent rPDU: IEC or GB, on site installation Intelligent rPDU: IEC, on site installation |
| ATS (Optional) | On site installation |
| Maintenance bypass | Standard |
| Intelligent battery monitoring system | Optional |
| Monitoring system | |
| Monitoring system | Mobile phone APP, SMS alarm, Web access, centralized management for multi-DCs |
| 10 inch Pad | Standard |
| Water sensor | Optional |
| Camera | Optional |
| Smoke sensor | Standard |
| Intelligent door lock | Standard |
| Facial recognition | Standard |
| Temperature and humidity sensor | Standard |
| Mobile O&M | Local app on the mobile phone, SMS alarm NetEco remote app on the mobile phone(optional) |



7 Basic Configurations for T1/T3/LT

| IT load | ≤8.5KW (T1/LT) ≤7KW(T3) | | 8.5KW~17kW (T1/LT) 7KW~14kW(T3) | |
|--------------------------------|--|-------|-------------------------------------|-------|
| Basic configuration | BC1* | BC2 | BC3* | BC4* |
| Aisle type | Single row, cold & hot aisle containment | | | |
| UPS(KVA) | 10+0 | 10+10 | 20+0 | 20+20 |
| Smart cooling | 1+0 | 1+1 | 2+0 | 2+0 |
| Power input | Single input is default (ATS optional) | | | |
| IT output | 4 | 12 | 12 | 12 |
| Intelligent Power distribution | NO | NO | NO | NO |

| IT load | 17~25KW(T1/LT) 14kW~21kW(T3) | ≤8.5KW(T1/LT) ≤7KW(T3) | 8.5~17kW(T1/LT) 7~14kW(T3) |
|--------------------------------|--|---------------------------|-------------------------------|
| Basic configuration | BC5* | BC6* | BC7* |
| Aisle type | Single row, cold&hot sealed | | |
| UPS(KVA) | 20*2+0 | 10+10 | 20+20 |
| Smart cooling | 3+0 | 1+1 | 2+0 |
| Power input | Single input is default (ATS optional) | | |
| IT output | 20 | 12 | 12 |
| Intelligent Power distribution | NO | Yes | Yes |

Note:
 1, Basic configuration 1, 3,4,5,7 are only applicable to TierI DC.
 2, The cooling capacity 12.5kW is obtained when the indoor dry bulb temperature is 37.8℃, and outdoor dry bulb temperature is 35℃, relative humidity 20%.
 3, ATS is optional and can be installed on site
 4, T1:-20℃~ +45℃ , LT: -40℃~ +45℃;T3:-10℃~ +55℃
 5, BC1 cooling without heating and humidification, the others are all have one cooling with heating and humidification
 6, BC6 & BC7 are intelligent power distribution.
 7, The Converged cabinet part number don't include cooling out door unit.three type of outdoor unites are freely configured with the converged cabinet.