

**aksa** POWER GENERATION

## Data Center Power Systems

Providing uninterrupted electrical energy is the most important backbone of the data centers infrastructure.

Companies need data centers to store and secure large amounts of data. For this reason, Datacenter operation is mission-critical to many of today's most important businesses. The most important precaution for data centers to operate safely is to provide uninterrupted electrical energy the fact that electrical energy is not interrupted. When there is In cases where is a utility power outage, the generator will switch on and you will be able to continue your work safely and uninterruptedly.

For this reason; Aksa Power Generation responds to your needs since more than 36 years to these challenges with power systems that deliver the best available technology and a support network offering tailor-made and reliable solutions for you for when you need it most. In recent years, the data center has been growing with increasing momentum. As businesses and people continue to need secure cloud and data storage, the demand for reliable and uninterrupted electricity supply continues to increase. Aksa Power Generation offers the most suitable and reliable solutions for your power needs in data centers with its generator options ranging from up to 3000 kVA.

Regardless of the power rate or complexity of your power needs for the data center, we provide a reliable power source. We manufacture and combine all the important components that use the industry's highest level of design and performance control.



[www.aksa.com.tr](http://www.aksa.com.tr)

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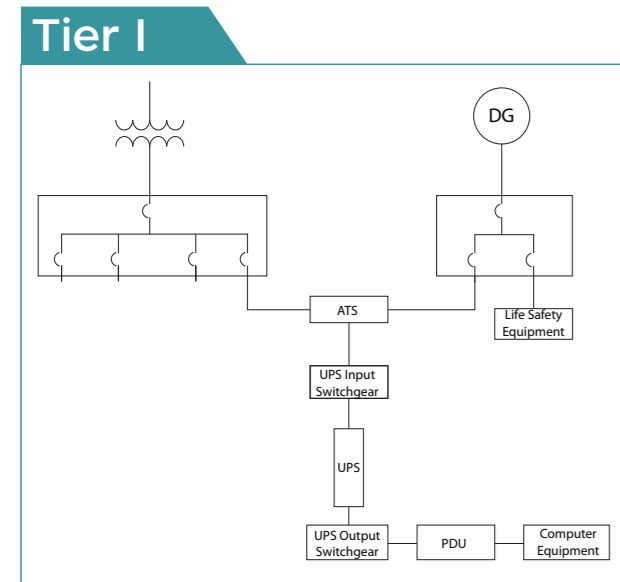
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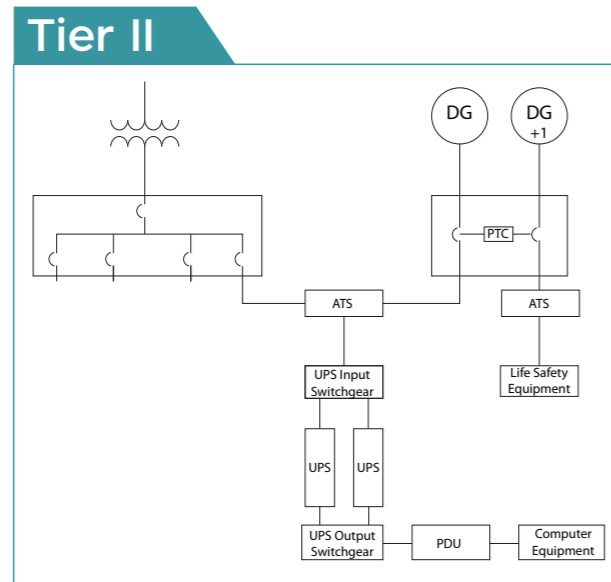
# Tier Level Ratings

- The tier rating system is the industry standard for benchmarking data center reliability.
- Four tiers, each building on requirement to the one below (ex. Tier II requires all of Tier I capability, plus the added requirements).
- Power Generation and distribution is one of 16 subsystems evaluated.
- No fractional tier ratings.
- Tiers do not specify certain equipment, but rather a level of redundancy and security to maximize runtime.
- To be an enterprise class data center, UPS and generator sets are required equipment.
- Significant costs associated with higher tier rating.

Engine-Generator Requirements	Tier I	Tier II	Tier III	Tier IV
<b>Rating to Support design load</b>	Any; up to nameplate rating to support design load	Any; up to nameplate rating to support design load	Capable of supporting design load for unlimited hours at site conditions	Capable of supporting design load for unlimited hours at site conditions
<b>Continuous</b>			Full nameplate capacity	
<b>Prime</b>	No additional requirement for hours of operation limitations		Option 1; 70% of nameplate capacity Option 2; Larger capacity than Option 1 with manufacturer letter	
<b>Standby</b>			Can be used for Tier III and Tier IV with manufacturer letter; Tier Certification capacity dependent on manufacturer letter	
<b>De-rating (or Site Conditions)</b>	Additional derating may be required due to site conditions (e.g., ambient temperatures, elevation)—consult manufacturer requirements			

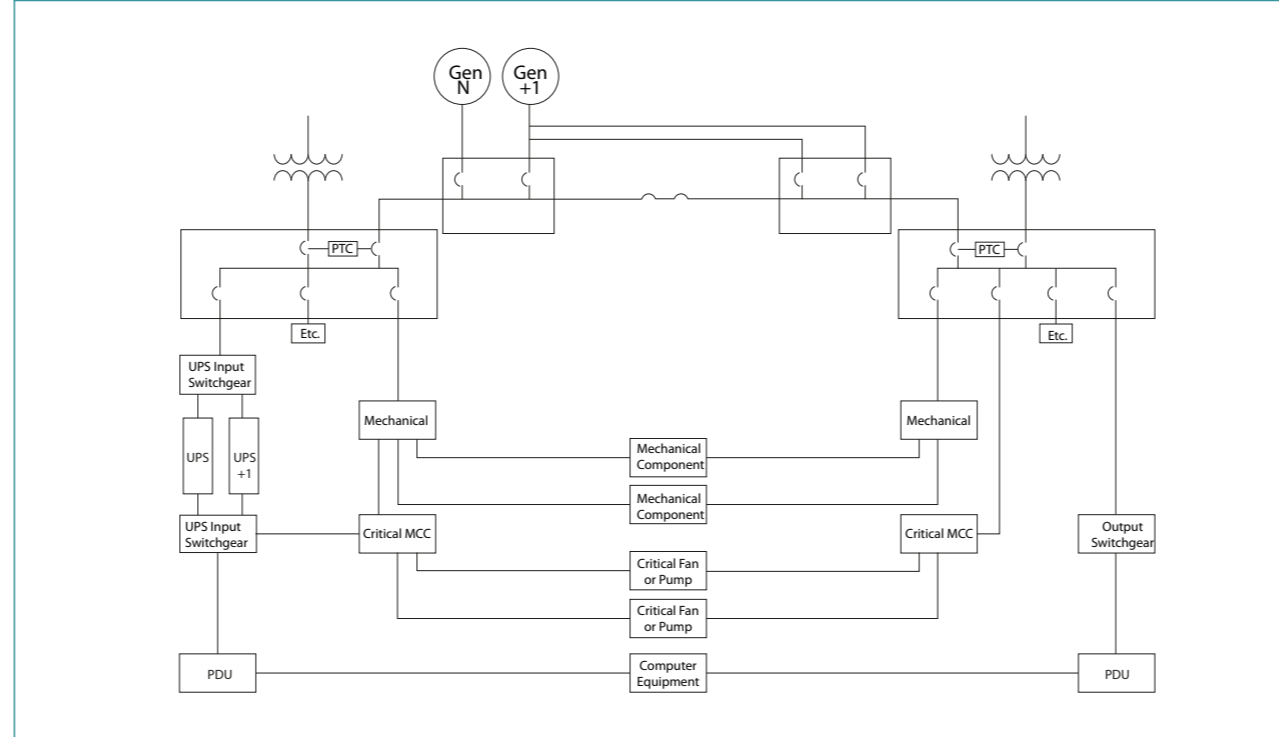


Capacity	N
Distribution Paths	1
Concurrently Maintainable	No
Fault Tolerant	No



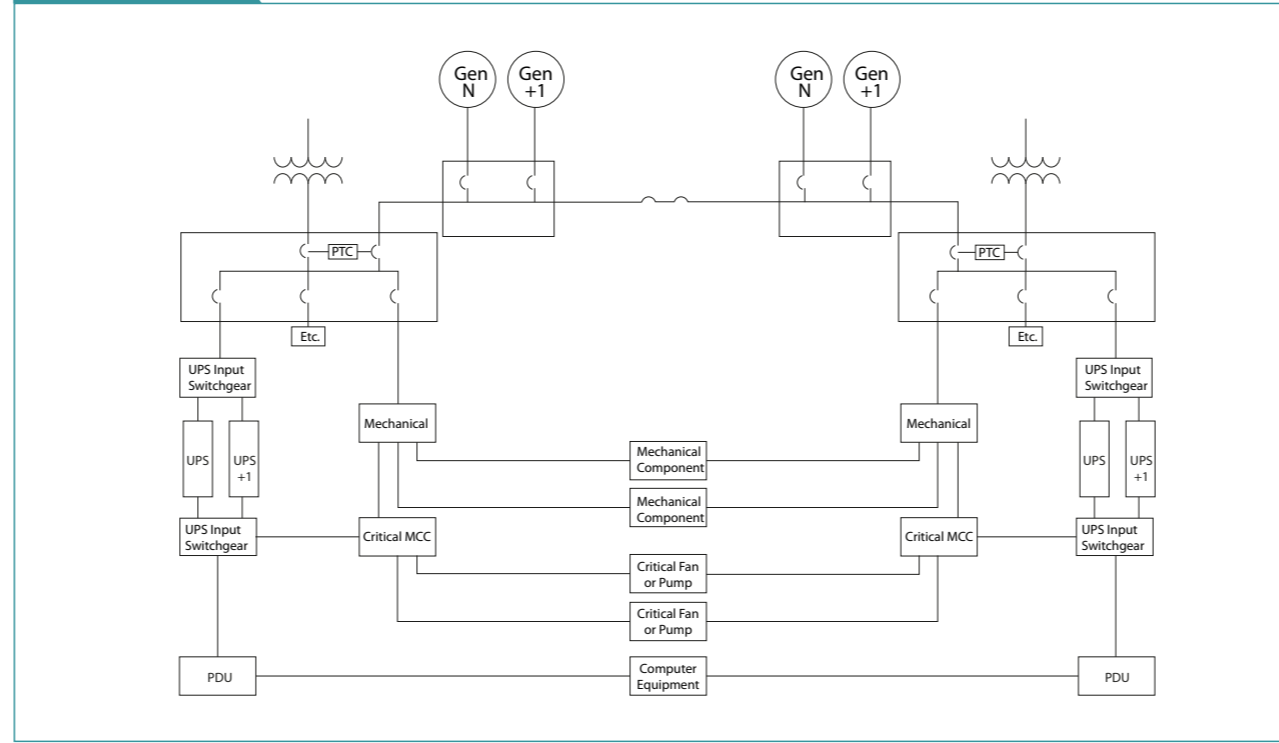
Capacity	N+1
Distribution Paths	1
Concurrently Maintainable	No
Fault Tolerant	No

## Tier III



Capacity	N+1
Distribution Paths	1 Active, 1 Alternate
Concurrently Maintainable	Yes
Fault Tolerant	No

## Tier IV



Capacity	N after any failure
Distribution Paths	2 Simultaneously Active
Concurrently Maintainable	Yes
Fault Tolerant	Yes



## Cummins DCC



Gen-Set Models	Power		Model	Alternator Model
	Standby (kVA)	DCC (kVA)		
AC 550	550	500	QSX15-G8	HCI544C
AC 700	700	638	VTA28-G5	HCI544F
AC 880	880	800	QSK23G3	HCI634G
AC 1100 K	1100	1000	KTA38-G5	HCI634J
AC 1410	1410	1280	KTA50-G3	PI734B1
AC1650	1650	1400	KTA50-G8	PI734C
AC1675	1675	1500	KTA50-GS8	PI734C1
AC1700	1700	1540	QSK50-G4	PI734C1
AC1815	1815	1650	QSK50-G7	PI734D
AC2000	2000	1875	QSK60-G3	PI734E
AC 2250	2250	2045	QSK60-G4	PI734F1
AC 2500	2500	2250	QSK60-G8	PI734H
AC 2750	2750	2500	QSK60-G22	LVSI804S
AC 3000	3000	2750	QSK78-G9	LVSI804S



## Perkins DCC



Gen-Set Models	Power		Model	Alternator Model
	Standby (kVA)	DCC (kVA)		
AP 825	825	750	4006-23TAG2A	HCI634G
AP 880	880	800	4006-23TAG3A	HCI634G
AP 1000	1000	910	4008TAG1A	HCI634H
AP 1125	1125	1023	4008TAG2A	HCI634J
AP 1400	1385	1255	4012-46TWG2A	PI734A
AP 1650	1650	1500	4012-46TAG2A	PI734C
AP 187S	1875	1705	4012-46TAG3A	PI734E
AP 2000	2000	1850	4016-61TRG1	PI734E
AP 2250	2250	2000	4016-61TRG2	PI734F1
AP 2500	2500	2250	4016-61TRG3	PI734H