



Data Center  
Power Systems

**aksa** POWER  
GENERATION



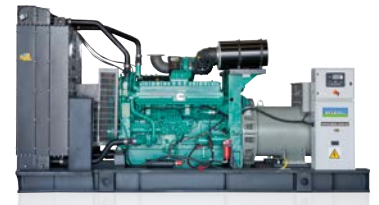
## Providing uninterrupted electrical energy is the most important backbone of the data centers infrastructure.

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.





## Cummins 400V

50 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AC 550	550	500	440	400	QSX15-G8	Mecc Alte	ECO403S4B
AC 700	700	637,5	560	510	VTA28-G5	Mecc Alte	ECO40-2L4
AC 880	880	800	704	640	QSK23-G3	Stamford	HCI634G
AC 880	880	800	704	640	QSK23-G3	Stamford	S6L1D-C
AC 1100	1100	1000	880	800	QST30-G4	Mecc Alte	ECO43 1M4
AC 1100K	1100	1000	880	800	KTA38-G14	Stamford	HCI634J
AC 1100K	1100	1000	880	800	KTA38-G14	Stamford	S6L1D-F
AC 1101	1100	1000	880	800	QST30-G4	Stamford	HCI634J
AC 1101	1100	1000	880	800	QST30-G4	Stamford	S6L1D-E
AC 1410	1410	1270	1128	1016	KTA50-G3	Mecc Alte	ECO43 2L4
AC 1411	140	1260	112	1008	KTA50-G3	Stamford	PI734B
AC 1411	1410	1260	1128	1008	KTA50-G3	Stamford	S6L1D-H
AC 1650	1650	1400	1320	1120	KTA50-G8	Stamford	PI734C
AC 1650	1650	1400	1320	1120	KTA50-G8	Stamford	S7L1D-E
AC 1700	1700	1540	1360	1232	QSK50-G4	Stamford	PI734C
AC 1700	1700	1540	1360	1232	QSK50-G4	Stamford	S7L1D-C
AC 1815	1320	1650	1056	1320	QSK50-G7	Stamford	PI734D
AC 1815	1815	1650	1452	1320	QSK50-G7	Stamford	S7L1D-D
AC 2000	1500	1875	1200	1500	QSK60-G3	Stamford	PI734E
AC 2000	2000	1875	1600	1500	QSK60-G3	Stamford	S7L1D-F
AC 2001	2000	1825	1600	1460	KTA50-G23	Stamford	S7L1D-F
AC 2200	2245	2038	1796	1630	KTA50-G25	Stamford	S7L1D-G
AC 2250	2250	2000	1800	1600	QSK60-G4	Stamford	S7L1D-G
AC 2500	2500	2250	2000	1800	QSK60-G8	Stamford	S7L1D-J
AC 2750	2750	2500	2200	2000	QSK60-G22	Stamford	S7L1D-J
AC 2750	2750	2500	2200	2000	QSK60-G23	Stamford	S7L1D-J
AC 2752	2750	2500	2200	2000	QSK60-G23	Stamford	S7L1D-K
AC 3000	3000	2625	2400	2100	QSK78-G9	Stamford	LVS1804S
AC 3800	3800	3375	3040	2700	QSK95-G10	Stamford	S9L1D-E

## Cummins 10.500 V O.G.\* 50 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AC 2245	2245	2000	1796	1600	QSK60-G4	Stamford	HVSI804R
AC 2501	2500	2250	2000	1800	QSK60-G8	Stamford	HVSI804S
AC 2751	2750	2500	2200	2000	QSK60-G22	Stamford	HVSI804T
AC 2751	2750	2500	2200	2000	QSK60-G23	Stamford	HVSI804T
AC 3001	2925	2650	2340	2100	QSK78-G9	Stamford	HVSI804W

## Cummins 10.000 V O.G.\* 50 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AC 2750	2750	2549	2200	2039	QSK60-G23	Stamford	S9H1D-D



## Perkins 400V 50 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AP 1380	1380	1255	1104	1004	4012-46TWG2A	Stamford	PI734A
AP 1380	1380	1255	1104	1004	4012-46TWG2A	Stamford	S6L1D-G
AP 1400	1400	1265	1120	1012	4012-46TWG2A	Mecc Alte	ECO43 2L4
AP 1650	1650	1500	1320	1200	4012-46TAG2A	Mecc Alte	ECO46 1S4
AP 1651	1650	1500	1320	1200	4012-46TAG2A	Stamford	PI734C
AP 1651	1650	1500	1320	1200	4012-46TAG2A	Stamford	S7L1D-C
AP 1875	1875	1705	1500	1364	4012-46TAG3A	Mecc Alte	ECO46 2S4
AP 1876	1875	1705	1500	1364	4012-46TAG3A	Stamford	PI734E
AP 1876	1875	1705	1500	1364	4012-46TAG3A	Stamford	S7L1D-E
AP 1877	1904	1800	1523	1440	4012-46TAG3A	Mecc Alte	ECO46 2S4
AP 1878	1894	1799	1515	1439	4012-46TAG3A	Stamford	PI734E
AP 1878	1894	1799	1515	1438	4012-46TAG3A	Stamford	S7L1D-G
AP 2000	2000	1850	1600	1480	4016-61TRG1	Mecc Alte	ECO46 1L4
AP 2001	2000	1850	1600	1480	4016-61TRG1	Stamford	PI734E
AP 2001	2000	1850	1600	1480	4016-61TRG1	Stamford	S7L1D-F
AP 2250	2250	2000	1800	1600	4016-61TRG2	Mecc Alte	ECO46 1L4
AP 2251	2250	2000	1800	1600	4016-61TRG2	Stamford	PI734F
AP 2251	2250	2000	1800	1600	4016-61TRG2	Stamford	S7L1D-G
AP 2500	2500	2250	2000	1800	4016-61TRG3	Mecc Alte	ECO46 1.5L4
AP 2501	2500	2250	2000	1800	4016-61TRG3	Stamford	PI734H
AP 2501	2500	2250	2000	1800	4016-61TRG3	Stamford	S7L1D-J
AP 2502	N/A	2500	N/A	2000	4016-61TRG3X	Mecc Alte	ECO46 2L4



## Mitsubishi 400V 50 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
APD1425M	1425	1290	1140	1032	S12R-PTA	Mecc Alte	ECO43 2L4A
APD1426M	1425	1280	1140	1024	S12R-PTA	Stamford	S6L1D-H4
APD1650M	1650	1500	1320	1200	S12R-PTAA2	Mecc Alte	ECO46 1S4A
APD1651M	1650	1500	1320	1200	S12R-PTAA2	Stamford	S7L1D-C4
APD1915M	1915	1745	1532	1396	S16R-PTA	Mecc Alte	ECO46 2S4A
APD1916M	1915	1735	1532	1388	S16R-PTA	Stamford	S7L1D-E4
APD2250M	2250	2000	1800	1600	S16R-PTAA-2	Mecc Alte	ECO46 1L4A
APD2251M	2250	2000	1800	1600	S16R-PTAA-2	Stamford	S7L1D-G4
APD2500M	2500	2250	2000	1800	S16R2-PTAW	Mecc Alte	ECO46 1.5L4A
APD2501M	2500	2250	2000	1800	S16R2-PTAW	Stamford	S7L1D-J4
APD2750M	2750	2500	2200	2000	S16R2-PTAW2-E	Mecc Alte	ECO46 2L4A
APD2751M	2750	2500	2200	2000	S16R2-PTAW2-E	Stamford	S7L1D-J4



## Cummins 480V

## 60 Hz

Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AC 550-6	493	452	394	360	QSX15-G6	Stamford	HCI544C
AC 550-6	493	452	394	360	QSX15-G6	Stamford	S5L1D-D
AC 626-6	526	560	501	448	QSX15-G9	Stamford	HCI544E
AC 626-6	620	563	496	451	QSX15-G9	Stamford	S5L1D-C
AC 750-6	750	680	600	544	VTA28-G5	Stamford	HCI544F
AC 750-6	573	680	602	544	VTA28-G5	Stamford	S5L1D-E
AC 1013-6	1013	715	810	732	QSK23-G3	Stamford	HCI634G
AC 1013-6	1013	915	810	732	QSK23-G3	Stamford	S5L1D-H
AC 1149-6	1149	1035	919	828	QST30-G3	Stamford	HCI634J
AC 1149-6	1149	1035	919	828	QST30-G3	Stamford	S6L1D-F
AC 1269-6	1269	1145	1015	916	QST30-G4	Stamford	HCI634J
AC 1269-6	1269	1145	1015	916	QST30-G4	Stamford	S6L1D-E
AC 1575-6	1575	1385	1260	1108	KTA50-G3	Stamford	PI734B1
AC 1575-6	1575	1385	1260	1108	KTA50-G3	Stamford	S6L1D-F
AC 1894-6	1894	1580	1515	1264	KTA50-G9	Stamford	PI734C
AC 1894-6	1894	1580	1515	1264	KTA50-G9	Stamford	S7L1D-F
AC 2500-6	2500	2250	2000	1800	QSK60-G6	Stamford	S7L1D-G
AC 3438-6	3438	3125	2750	2500	QSK78-G8	Stamford	LVSI804S
AUDC400-6	500	450	400	360	QSZ13-G7	Stamford	HCI544C
AUDC400-6	505	445	404	356	QSZ13-G7	Stamford	S5L1D-C
AUDC500-6	625	560	500	448	QSX15-G9	Stamford	HCI544E
AUDC500-6	620	563	496	451	QSX15-G9	Stamford	S5L1D-C
AUDC600-6	750	681	600	545	QSK19-G5	Stamford	HCI544E
AUDC600-6	754	683	603	546	QSK19-G5	Stamford	S5L1D-E
AUDC800-6	1040	906	832	725	QSK23-G7	Stamford	HCI634G
AUDC800-6	1000	906	800	725	QSK23-G7	Stamford	S5L1D-H
AUDC1000-6	1250	1125	1000	900	QST30-G5	Stamford	HCI634J
AUDC1000-6	1250	1125	1000	900	QST30-G5	Stamford	S6L1D-E
AUDC1250-6	1563	1400	1250	1120	QSK38-G4	Stamford	PI734A
AUDC1250-6	1563	1400	1250	1120	QSK38-G4	Stamford	S6L1D-F
AUDC1500-6	1875	1700	1500	1360	QSK50-G4	Stamford	PI734C
AUDC1500-6	1875	1700	1500	1360	QSK50-G4	Stamford	S7L1D-D
AUDC1600-6	2000	1825	1600	1460	QSK50-G6	Stamford	PI734D
AUDC1600-6	2000	1825	1600	1460	QSK50-G6	Stamford	S7L1D-E
AUDC2000-6	2500	2250	2000	1800	QSK60-G6	Stamford	PI734F
AUDC2000-6	2500	2250	2000	1800	QSK60-G6	Stamford	S7L1D-G
AUDC2250-6	2813	2500	2250	2000	QSK78-G11	Stamford	PI734G
AUDC2250-6	2813	2500	2250	2000	QSK78-G11	Stamford	S7L1D-H
AUDC2500-6	3125	2875	2500	2300	QSK78-G11	Stamford	LVSI804R



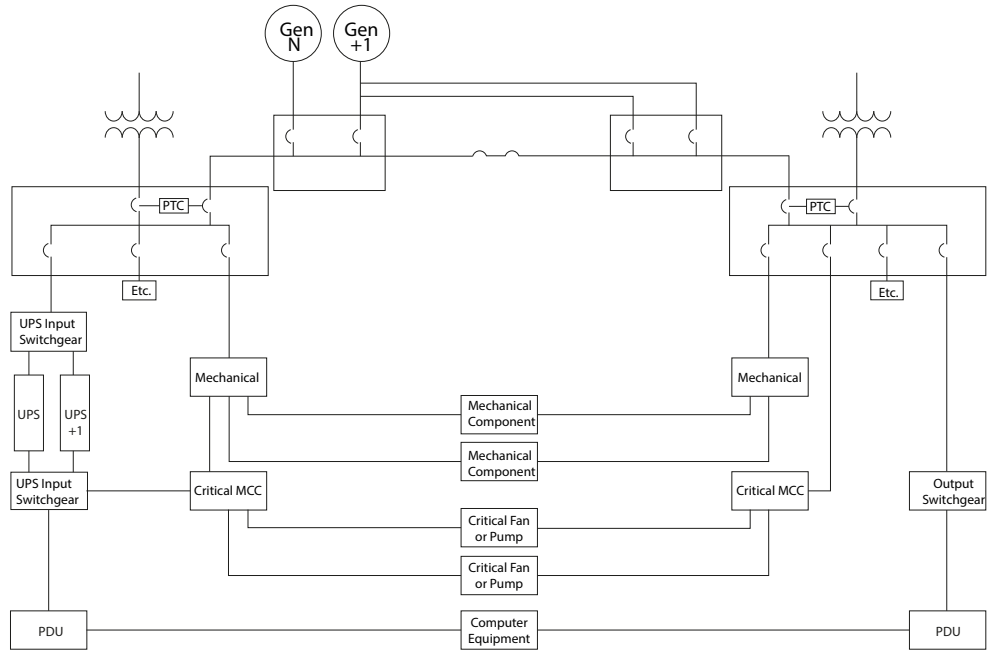
Cummins 480V					60 Hz		
Gen.Set Model	Power				Engine Model	Alternator Made	Alternator Model
	Standby (kVA)	DCC (kVA)	Standby (kW)	DCC (kW)			
AP 1380-6	1380	1250	1104	1000	4012-46TWG2A	Stamford	PI734F
AP 1380-6	1380	1250	1104	1000	4012-46TWG2A	Stamford	S6L1D-E
AP 1400-6	1400	1270	1120	1016	4012-46TWG2A	Mecc Alte	ECO43 2L4A
AP 1670-6	1670	1520	1336	1216	4012-46TAG2A	Stamford	PI734C
AP 1670-6	1670	1520	1336	1216	4012-46TAG2A	Stamford	S6L1D-H
AP 1680-6	1680	1530	1344	1224	4012-46TAG2A	Mecc Alte	ECO46 1S4A
AP 1904-6	1904	1735	1523	1388	4012-46TAG3A	Stamford	PI734E
AP 1904-6	1904	1735	1523	1388	4012-46TAG3A	Stamford	S6L1D-H
AP 1913-6	1913	1470	1530	1392	4012-46TAG3A	Mecc Alte	ECO46 2S4A

## 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.

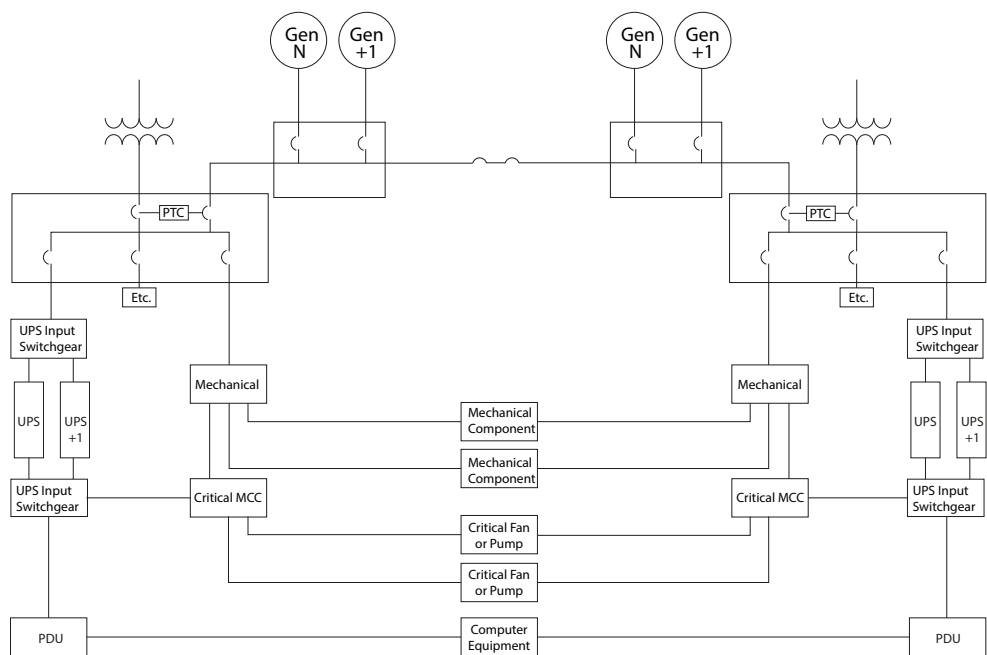
Engine-Generator Requirements	Tier I	Tier II	Tier III	Tier IV
<b>Rating to Support design load</b>	Any; up to nameplate rating to support design load	Any; up to nameplate rating to support design load	Capable of supporting design load for unlimited hours at site conditions	Capable of supporting design load for unlimited hours at site conditions
<b>Continuous</b>	No additional requirement for hours of operation limitations		Full nameplate capacity	
<b>Prime</b>			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			

## 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

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