

aksa POWER
GENERATION

POWER YOUR FUTURE

RENTAL PACK SERIES



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RENTAL PACK SERIES

GEN-SET SPECIFICATIONS (CUMMINS POWERED)

Model	Engine Brand	Engine Model	Controller	Genset Power		Sound Level(dBA)		Fuel Tank Capacity(L)	Fuel Consumption (L/H)	Dimension (LxWxH)(mm)	Weight (kg)
				Standby (kVA)	Prime (kVA)	1M	7M				
APD30C	Cummins	4B3.9G2	DSE6120	30	27	77	65	230	6.7	2800x1063x1703	1470
APD43C	Cummins	4BT3.9G2	DSE6120	43	39	75	62	230	9.3	2800x1063x1703	1540
APD66C	Cummins	4BTA3.9G2	DSE6120	66	60	76	63	330	12.9	2800x1063x1753	1750
APD110C	Cummins	6BT5.9G2	DSE6120	110	100	77	65	550	22	3400x1163x1823	2100
APD145C	Cummins	6BTA5.9G2	DSE6120	145	132	79.5	72	550	30	3400x1163x1923	2300
APD200C	Cummins	6CTA8.3G2	DSE6120	200	180	80	66	1100	42	3600x1363x2103	3000
APD220C	Cummins	6CTAA8.3G2	DSE7320	220	200	86	75	1100	45	3700x1363x2103	3100
APD275C	Cummins	6LTAA8.9G2	DSE7320	275	250	85	72	1100	53	3700x1363x2103	3200
AC550	Cummins	QXS15G8	DSE7320	550	500	86	77	1500	103	5016x1728x2505	5800

ENVIRONMENTAL & HEALTHY

SOUND PROOF CANOPY WITH HIGH QUALITY SOUND ABSORBING MATERIAL

The interior is lined with high quality soundproof rubber and plastic material, and the door is airproof with rubber specific for car doors absorbing massive noise and heating during the operation.

RESIDENTIAL SILENCER

Residential silencer with excellent performance reduce the noise which contribute to environmental protection.





RENTAL PACK SERIES

GEN-SET SPECIFICATIONS (PERKINS POWERED)

Model	Engine Brand	Engine Model	Controller	Genset Power		Sound Level(dBA)		Fuel Tank Capacity(L)	Fuel Consumption (L/H)	Dimension (LxWxH)(mm)	Weight (kg)
				Standby (kVA)	Prime (kVA)	1M	7M				
APD22P(UK)	Perkins	404A-22G(UK)	DSE6120	22	20	69	58	150	5.4	2200x1063x1423	1150
APD22P(CN)	Perkins	404A-22G(CN)	DSE6120	22	20	69	58	150	5.4	2200x1063x1423	1150
APD22PE	Perkins	404D-22G	DSE6120	22	20	69	58	150	5.4	2200x1063x1423	1150
APD33P	Perkins	1103A-33G	DSE6120	33	30	76	66	250	7.2	2800x1063x1753	1440
APD66P	Perkins	1103A-33TG2	DSE6120	66	60	73.5	63	250	14.6	2800x1063x1753	1600
APD110PE	Perkins	1104C-44TAG2	DSE6120	110	100	77	65	550	22.6	3400x1163x1823	1910
APD200P	Perkins	1106A-70TAG3	DSE6120	200	180	80	67	1100	41.6	3600x1363x2103	3150
APD275P	Perkins	1206A-E70TTAG3	DSE7320	275	250	TBD	TBD	1100	56.9	3800x1363x2273	3800
APD385P	Perkins	1706A-E93TAG2	DSE7320	385	350	89	80	850	75	4616x1513x2527	5000
APD500P	Perkins	2506C-E15TAG1	DSE7320	500	455	86	77	1500	99	5216x1728x2655	6140

ENVIRONMENTAL & HEALTHY

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RENTAL PACK SERIES

GEN-SET SPECIFICATIONS (VOLVO POWERED)

Model	Engine Brand	Engine Model	Controller	Genset Power		Sound Level(dBA)		Fuel Tank Capacity(L)	Fuel Consumption (L/H)	Dimension (LxWxH)(mm)	Weight (kg)
				Standby (kVA)	Prime (kVA)	1M	7M				
APD165V	Volvo	TAD731GE	DSE6120	165	150	86.5	73.5	1100	34.9	3700x1363x2103	3030
APD550V	Volvo	TAD1641GE	DSE7320	550	500	89	79.5	1500	103.2	5016x1728x2505	6300

ENVIRONMENTAL & HEALTHY

SOUND PROOF CANOPY WITH HIGH QUALITY SOUND ABSORBING MATERIAL

The interior is lined with high quality soundproof rubber and plastic material, and the door is airproof with rubber specific for car doors absorbing massive noise and heating during the operation.

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ENVIRONMENTAL & HEALTHY

- Bunded base fuel tank, Generally, for genset power \leq 250kVA, fuel tank capacity meet 24hrs uninterrupted running; for genset power $>$ 250kVA, fuel tank capacity meet 12hrs uninterrupted running. The specific tank capacity is shown in the parameter table ;Tank can be removable if necessary.
- Radiator is available to run under harsh weather conditions, and running temperature is 50°C.
- Strong mechanical construction, good antivibration function which settle for frequent moving.
- Using high quality soundproof material: rubber and plastic material which has higher anti-fire rating.
- Bunded base frame that can hold all liquids including fuel, oil and coolant.
- Mounted with safety locks avoiding unexpected opening.
- Fuel water separator can be installed as an option by customers' requirement.



Pressure Lock

RENTAL PACK SERIES



Power Cables Port



Fuel Filler

EASY OPERATION

- Fuel filling in port from outside.
- Six- way by pass valves that enable to connect external fuel tank easily
- Designed power cables port for customer convenient connection.

HIGHER SECURITY

- Mounted with 3P/4P output breaker switch.
- Equipped with 30-100 mA leakage protective device, which can avoid accidents caused by unbalanced phase for maximizing the operator's safety.
- Mounted manual battery switches.
- Comply Australian cable standards AS3000:2007.



3P Output Breaker Switch



Battery Isolator Switch



Balance Points of Canopy Top



Beval Angle and Drag Holes



Beval Angle and Drag Holes

CONVENIENT MOVING

- Be available for lifting through balance points of canopy top side.
- Angle and towing holes for moved expediently.



GREAT MAINTAINABILITY

- Mounted with service port on the fuel tank which is easy for maintenance.
- Fork lift holes for bunded base and fuel tank base, it's easy for users to maintain or replace fuel tanks.
- There's bolt connction with fuel tank and base frame, and fuel tank and base frame can be separated by removing bolts. Fueltank side have drainage outlet, which is convenient for cleaning.



Fork Lift Hole

ENGINE

Mounted with strong CUMMINS, perkins, volvo engine with quickstart and high torque Heavy duty diesel engine
 24 V D.C. starter and charge alternator
 Replaceable fuel filter, oil filter and dry element air filter
 Cooling radiator and fan
 Starter battery (with lead acid) including Rack and Cables
 Flexible fuel connection hoses and manual oil sump drain valve
 Jacket water heater
 Operation manuals and circuit diagram documents



CUMMINS POWERED

Genset Model		APD30C	APD43C	APD66C	APD110C	APD145C	APD200C	APD220C	APD275C	AC550
Model		4B3.9G2	4BT3.9G2	4BTA3.9G2	6BT5.9G2	6BTA5.9G2	6CTA8.3G2	6CTAA8.3G2	6LTAA8.9G2	QSX15G8
Engine Power Output at rated rpm	kWm	27	40	55	92	130	180	203	240	500
	HP	36	54	74	123	174	241	272	322	670
Aspiration and Cooling		Natural	Turbocharged	Turbocharged & Aftercooled	Turbocharged	Turbocharged and Charge Air Cooled	Turbocharged & Aftercooled	Turbocharged and Charge Air Cooled	Turbocharged and Charge Air Cooled	Turbocharged and Charge Air Cooled
Total Displacement	Litre	3.9	3.9	3.9	5.9	5.9	8.3	8.3	8.9	15
No. of Cylinders and Build		4 - Inline	4 - Inline	4 - Inline	6 - Inline	6 - Inline	6 - Inline	6 - Inline	6 - Inline	6 - Inline
Engine Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500
Bord and Stroke	mmxmm	102x120	102x120	102x120	102x120	102x120	114x135	114x135	114x145	137x169
Compression Ratio		18:1	18:1	17.3:1	17.3:1	17.3:1	17.3:1	18:1	16.6:1	17:01
Governor		Electronic	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic	ECM
Fuel Consumption at full load	L/hr	6.7	9.3	12.9	22	30	42	45	53	103
Oil Capacity	Litre	10.9	10.9	10.9	16.4	16.4	27.6	23.8	27.6	91
Coolant Capacity	Litre	19.2	19.2	19.9	35.9	54	41.3	47.3	46.1	66
Radiator Cooling Air	M ³ /min	120	150	120	136	148	186	325.8	475	681
Air Intake-Engine	M ³ /min	1.98	2.7	3.12	6.48	7.2	12.36	11.46	15.24	36.3
Exhaust Gas Flow	M ³ /min	4.26	6.48	8.04	16.8	19.68	34.68	32.82	38.04	82.2

PERKINS POWERED

Genset Model		APD22P(UK/CN)	APD22PE	APD33P	APD66P	APD110PE	APD200P	APD275P	APD385P	APD500P
Model		404A-22G	404D-22G	1103A-33G	1103A-33TG2	1104C-44TAG2	1106A-70TAG3	1206A-E70TTAG3	1706A-E93TAG2	2506C-E15TAG1
Engine Power Output at rated rpm	kWm	20.6	20.6	31	60.5	103	179.8	248.6	342.54	451
	HP	28	27.6	41.6	81	138.1	241	333.4	459.3	605
Aspiration and Cooling		Natural	Natural	Natural	Turbocharged	Turbocharged & Intercooled	Turbocharged and air charge cooled	Series turbocharged aftercooled	Turbocharged, Aftercooled	turbocharged, air-to-air charge cooling
Total Displacement	Litre	2.216	2.216	3.3	3.3	4.4	7.01	7.01	9.29	15
No. of Cylinders and Build		4 - Inline	4 - Inline	3 - Inline	3 - Inline	4 - Inline	6 - Inline	6 ; In-line	6; in-line	6; in-line
Engine Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500
Bord and Stroke	mmxmm	84x100	84x100	105x127	105x127	105x127	105x135	105x135	115x149	137x171
Compression Ratio		23.3:1	23.3:1	19.25:1	17.25:1	18.23:1	16:1	15.8:1	16.5:1	16:1
Governor		Mechanical	Mechanical	Mechanical	Mechanical	Electronic	Mechanical	Electronic	Electronic	Electronic
Fuel Consumption at full load	L/hr	5.4	5.4	7.2	14.6	22.6	41.6	56.9	69.6	99
Oil Capacity	Litre	10.6	10.6	8.3	8.3	8	18	16	30	62
Coolant Capacity	Litre	7	7	10.2	10.2	12.6	21	25	35.8	58
Radiator Cooling Air	M ³ /min	40.2	40.2	53	89	165.6	252	265.2	370	722
Air Intake-Engine	M ³ /min	1.45	1.45	2.16	3.9	6.27	13.87	15.7	18.53	35.8
Exhaust Gas Flow	M ³ /min	3.94	3.94	5.8	10.4	16.3	33.85	33.66	50.71	94



VOLVO POWERED

Genset Model		APD165V	APD550V			
Model		TAD731GE	TAD1641GE			
Engine Power Output at rated rpm	kWm	153	484			
	HP	208	658			
Aspiration and Cooling		Turbocharged-Intercooled	Turbocharged-Aftercooled			
Total Displacement	Litre	7.15	16.12			
No. of Cylinders and Build		6 Cylinder, In-Line	6 Cylinder, In-Line			
Engine Speed	rpm	1500	1500			
Bore and Stroke	mmxmm	108 x 130	144 x 165			
Compression Ratio		18:1	16.5:1			
Governor		Heinzman / EDC4	Volvo / EMS 2			
Fuel Consumption at full load	L/hr	34.9	103.2			
Oil Capacity	Litre	20	48			
Coolant Capacity	Litre	23.8	60			
Radiator Cooling Air	M ³ /min	174	469			
Air Intake-Engine	M ³ /min	10.65	38			
Exhaust Gas Flow	M ³ /min	30.2	92			

ALTERNATOR

Brushless, single bearing system, flexible disc, 4 poles

Insulation class H

Standard degree of protection IP22 (*IP23 is available.)

Self-exciting and self-regulating

Impregnation with tropicalised epoxy varnish Solid state Automatic Voltage Regulator Stator winding with 2/3 pitch for improved harmonics

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163 ° C Continuous
Exciter Type	Self Excited
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%



- c) Alarms:**
- Over and Under Speed
 - Low and High Battery Volt.
 - Start and Stop Failure
 - Charge fail
 - Over Current
 - Under / Over Generator Voltage
 - Low Oil Pressure
 - Emergency stop
 - High engine temperature

- d) LED indications**
- Mains available
 - Generator available
 - Mains on load
 - Generator on load

CONTROL SYSTEM

DSE6120

Control supervision and protection panel is mounted on the genset base frame.

The control panel is equipped as follows:

1. Auto mains failure control panel

- Panel equipments:
- Control with AMF module
 - Static battery charger
 - Emergency stop push button



a) Generating set control module DSE6120

features:

- ✓ The module is used to monitor main supply and starts and stops of a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of main and generator contactors
- ✓ Monitors engine performance and AC power output LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ 4 configurable analogue/digital inputs, 8 configurable digital inputs
- ✓ 6 configurable DC outputs
- ✓ Easy push button control

STOP/RESET - MANUAL - AUTO - TEST – START

b) Metering via LCD display:

- ✓ Generator Volts (L-L / L-N)
- ✓ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C & ° F)
- ✓ Generator Frequency (Hz)
- ✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)

Generator kVA
Generator kW
Generator Cos (σ)

2. Power outlet terminal board mounted on the genset base frame



CONTROL SYSTEM

DSE7320

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

Auto Mains Failure Control Panel
 Panel equipments:
 Control with AMF module
 Static battery charger
 Emergency stop push button

a) Generating set control module DSE 7320 features:

The module is used to monitor mains supply and starts and stops of a standby generating set
 Micro-processor based design
 Automatic control of main and generator contactors
 Monitors engine performance and AC power output
 LED alarm indication
 Front panel configuration of timers and alarm trip points
 Easy push button control
 STOP/RESET - MANUAL - TEST- AUTO - MUTE
 ALARM - START

b) Metering via LED display:

Generator Volts (L-L / L-N)
 Engine oil pressure (PSI-Bar)
 Generator Ampere (L1,L2,L3)
 Engine temperature (° C & ° F)
 Generator Frequency (Hz)
 Plant battery volts
 Engine hours run
 Mains Volts (Ph-Ph/Ph-N)
 Generator kVA, kWh
 Generator kW as % of rated kW setting
 Generator Cos (σ)



c) Alarms:

Over and Under Speed
 Low and High Battery Volt.
 Start and Stop Failure
 Charge fail
 Over Current
 Under / Over Generator Voltage
 Low Oil Pressure
 Emergency stop
 High engine temperature
 kW overload
 Unbalanced load
 Independent earth fault trip

d) LED Indications

Four configurable LED's like:
 Mains available
 Generator available
 Mains on load
 Generator on load
 Power Outlet Terminal Board Mounted on the Gen-set Base frame

