aksa POWER GENERATION

39 - 90 kVA / **31 - 72** kW

CUMMINS POWERED

GENERATING SETS

DESIGN SPECIFICATIONS

- ✔ High quality, reliable, long life and complete power unit
- ✔ Compact design
- ✔ Easy start and maintenance possibility
- ✔ Every generating set is subjected to a comprehensive test programme which includes full load testing and checking and providing of all control and safety shut down functions testing
- ✔ Full engineered with a wide range of options and accessories: Electrical, mechanical, soundproof canopy and mobile units

231/400 V-50 Hz	Generating Set Model		AC 39	AC 55	AC 66	AC 70	AC 90
Power Pf. 0,8	Standby	kVA	39	55	66	70	90
	Prime	kVA	35	50	60	63	80

Standby : Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046, BS 5514.
Prime : Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046, BS 5514. Contact us for the other running periods.

STANDARD GENSET SPECIFICATIONS

ENGINE

- **CUMMINS** heavy duty diesel engine
- Four cycle, water cooled, turbo charged
- Mechanical Governor Control System
- Electronic Governor on AC 90
- Direct injection fuel system
- 12 Vdc 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 sump oil drain valve
- Industrial capacity exhaust silencer and steel bellow
- Jacket water heater (at automatic models)
- Operation manuals and circuit diagrams documents

ALTERNATOR

- Brushless, single bearing system, 4 poles
- Insulation class H
- Standart degree of protection IP21
- Self-exciting and self-regulating
- Stator windings with 2/3 pitch
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator

CHASSIS

- The complete generating set is mounted as whole on a heavy-duty fabricated, steel base frame. Antivibration pads are fixed between the engine/alternator feet and the base frame
- Base frame design incorporates an integral fuel tank
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank
- Forklift pockets within base frame

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- All metal canopy parts are painted by electrostatic polyester powder paint
- Exhaust silencer is protected agains environment influences
- Thermally insulated engine exhaust system
- Emergency stop push button is installed outside of canopy
- Easy lifting and moving
- Easy mainteneance and operation

QUALITY STANDARDS

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, IEC 34. The generating set is manufactured by a full accredited **NQA ISO 9001.**

CONTROL SYSTEMS

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

Common İnstruments

- 3 Ampere meters
- Engine oil pressure gauge
- Engine coolant temperature gauge
- Emergency stop push button

1) Auto Mains Failure Control Panel - P 200


GEN - XFER

- Control with GEN-XFER module
- Static battery charger
- Thermally delayed over load protection

a) Control module features

- Protection, control and metering
- Automatic generator start / stop
- Automatic shutdown on fault condition
- LED status and fauld indication
- Simple push-button controlled operation Off / Auto / Manuel / Test / Program modes
- Fully programmable
- RS 232 communication port
- Mains / Generator / Load transfer control

b)Failure LED indicators

- High engine temperature
- Low oil pressure
- Generator voltage failure
- Charge alternator failure
- Emergency stop
- Fail to start
- Over speed
- Over current
- Battery fail

c) Measurement values

- Mains voltage
- Generator frequency
- Maintenance hour
- Exercise time
- Generator voltage
- Running time
- Battery voltage

2) Manual Start Control Panel - ME 40


DSE 701

- Control with 701 K module
- Volt - frequency meter (by LED)
- Hours run meter

a) Failure LED indicators

- High engine temperature
- Low oil pressure
- Over speed
- Charge failure

2-1 Alternator Circuit Breaker (for Manual Model)

nqa. ISO 9001 Registered UKAS QUALITY MANAGEMENT 015

TECHNICAL DATA

DIESEL GENERATING SETS 231/400 V - 50 Hz								
GROUP	MODEL			AC 39	AC 55	AC 66	AC 70	AC 90
	Power Pf. 0,8	Standby	kVA	39	55	66	70	90
			kW	31	44	52,8	56	72
		Prime	kVA	35	50	60	63	80
			kW	28	40	48	50,4	64
DIESEL ENGINE	Engine make			Cummins	Cummins	Cummins	Cummins	Cummins
	Model			4 B 3,3-G1	4 BT 3,3-G2	4 BT 3,9-G4	4 BT 3,9-G4	4 BTA 3,9-G3
	Gross Engine Power Output		kWm	36	51	64	64	81
	(at rated rpm)		hp	48	68	85	85	108
	Air Cooling			Natural Aspiration	Turbo charged	Turbo charged	Turbo charged	Turbo After cooled
	Cubic Capacity		Litre	3,3	3,3	3,92	3,92	3,92
	Cylinders and Build			4 - in line	4 - in line	4 - in line	4 - in line	4 - in line
	Rated Engine Speed		rpm	1500	1500	1500	1500	1500
	Bore and Stroke		mmxmm	95x115	95x115	102 x 120	102 x 120	102 x 120
	Compression Ratio			18,2:1	17:1	16,5:1	16,5:1	16,5:1
	Governor Type			Mechanical	Mechanical	Mechanical	Mechanical	Electronic
	Fuel Consumption		Load	1/2 3/4 Full	1/2 3/4 Full	1/2 3/4 Full	1/2 3/4 Full	1/2 3/4 Full
			L/hr	4,5 6,2 8,4	5,9 8,4 11,5	8 11 15	8 11 15	9 14 18
	Fuel Tank Capacity		Litre	170	170	170	170	170
	Total Oil Capacity		Litre	7,5	8	11	11	11
	Coolant Capacity (radiator and Engine)		Litre	12	15	19,2	19,2	20
	Radiator Cooling Air		m^3/min	110	82	136	136	136
	Air Intake - Engine		m^3/min	2,1	3	4,3	4,3	5,1
	Exhaust Gas Flow		m^3/min	6,5	8,2	11	11	10
	Exhaust Gas Temperature		°C	450	475	518	518	563
	Heat Radiated to Ambient		kW	10	12	17,6	17,6	16
Alternator Voltage Regulation				± 1 %	± 1 %	± 1 %	± 1 %	± 1 %

AT.28.10.04/MAP.0470

Open Type						
Dimensions (length x width x height)	m	1,86x0,9x1,3	1,86x0,9x1,3	1,86x0,9x1,32	1,86x0,9x1,32	1,86x0,9x1,32
Dry weight	kg	700	775	850	880	940

Sound Attenuated Type						
Canopy Model		ASM4	ASM4	ASM4	ASM4	ASM4
Dimensions (length x width x height)	m	2,5x0,97x1,57	2,5x0,97x1,57	2,5x0,97x1,57	2,5x0,97x1,57	2,5x0,87x1,57
Weight	kg	1050	1125	1200	1230	1300

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

OPTIONAL EQUIPMENTS

- Electronic governor control system (except AC 90)
- Fuel-water separator filter
- Automatic fuel filling system
- Engine oil heater
- Manual sump oil drain pump
- Residental silencer
- Low fuel level alarm
- Charge voltmeter
- Charge ammeter
- Anti condensation heater for alternator
- Main fuel tank
- 3 pole alternator circuit breaker (only for automatic models)
- 4 pole contactor
- Tool Kit
- Over sized alternator
- Automatic transfer switch by contactor or motorized circuit breaker

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