

Diesel Generator sets Powered by Cummins



ISO14001 SGS ISO9001

ASSEMBLY

- ※ The engine and alternator are close coupled by means of an SAE flange. A full torsional analysis has been carried out to guarantee no harmful vibration will occur. Engine with radiator and alternator are on common spraying powder mounting.
- ※ Anti-vibration pads are affixed between engine alternator feet and the base frame. Thus ensuring complete vibration isolation of the rotating assemblies and enabling the machine to be placed on an uneven surface without any detrimental effects.
- ※ For durability and corrosion resistance, all iron and steel surfaces of canopy fabrications have been treated for coating by grit blast cleaning. Then covered by special three layers painting which provides an excellent corrosion resistant surface.

WARRANTY

- ※ YICHEONG Company provides one-source responsibility for the generator set and accessories. Each YICHEONG generating set has been got through 2 hours Load test for running 0%, 25%, 50%, 75%, 100% and 110% load, all protective devices and control function are simulated and checked before despatch.
- ※ Engine and Alternator are guaranteed for a period of 1500 hours, or 12 months from the date of commissioning or 18 months from shipping, whichever occurs earlier.
- ※ Convenience for operation and maintenance, backed by Cummins global service network.

MAINS STANDARD

3P4W, 50Hz@1500RPM, 400/230V

(380/220V and 415/240V are for optional)

60hz, 1800RPM, 208V, 380V, 440V, 480V will be different technical data.

Scope supply:

- Cummins Diesel Engine with radiator and fan.
- Reliable AC brushless alternator, single bearing.
- Heavy duty steel frame with vibration-damping.
- Base service fuel tank inside skid.
- Lead acid batteries with cable for starter.
- Industrial silencer & flexible exhaust below.
- Mounted Control panel: key start or Digital.

ENGINE (Strong power)

- World named brand in the line of Engine, produced from Cummins (USA brand).
- Heavy duty & durable 4-stroke water cooled industrial engine, stable running, longer service time.
- Fuel injection pump, low consumption.
- 4-cy, 6-cy in line, 12-cy, 16-cy Vee type. Light weight, compact structure.
- Turbocharged intercooler, naturally aspirated.
- Air/fuel/oil filters, start motor, battery charging alternator 24VDC, tool kits box, manual booklet & certificate.

The 2/3 pitch design avoids excessive neutral currents. With the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

Brushless alternator with pilot exciter for excellent load response.

Class H insulation, easy parallelling with mains or others, standard 2/3 pitch stator windings avoid excessive neutral currents.

Backed by worldwide service network.

CONTROL SYSTEM

1.Standard: DSE702K Auto/Key Start

Providing the standard functions as follows:

(Also can be made according to the customers' special requirements)

- ※ Start/Stop controller, Emergency stop pushbutton
- ※ Ampere meter, Voltmeter and selector switch, Frequency meter/Water temperature gauge/Oil pressure gauge/Hour counter/Batery voltage meter.
- ※ Alarm System: Over speed, High Engine Temperature, Low Oil Pressure, Charge Failure.
- ※ Protection System: Over speed, High Engine Temperature, Low Oil Pressure, Emergency Stop. And the other protection function presetting.



DSE702K

BANEFITS

- ※ Reliable service working, powerful, attractive appearance.
- ※ Low running cost(diesel fuel & oil, maintenance)
- ※ Easy for commissioning, operation and maintenace.

CONTROL SYSTEM/PROTECTION

※ Controllers are available for all applications.It contains DeepSea, Smartgen or other famous brands. According to their different functions,the control systems can be specified into key start controller,digital auto-start controller and PCRC three remote control systems.See controller features inside.

CRITERION

- ※ ISO8528, GB/T2820, ISO3046, BS4999, BS5514, BS5000
- ※ EN12601:2001, EN60034-22:1997, EN60204-1:2006
- ※ ISO9001:2000, ISO14001:2004, SGS, TLC

ALTERNATOR (Reliable)

Voltage regulation

Voltage regulation maintained with in $\pm 0.5\%$ as follow:

- Power factor between 0.8-1.0 lagging.
- From no load to full load,any steady load.
- Speed droop variation under 5%.

Frequency/Speed undulation

- 0-100% load, Frequency/Speed Droop Ratio $< 5\%$.
- 25-100% load, any steady load undulation $< 0.25\%$.

Effect factor of telecom

- TIF(MAMG1-22) < 50 ; THF(BS EN60034) $< 2\%$

2.Option: Smartgen HGM6110 Digital Auto Start

3.Option: DeepSea DSE-7320 Digital Auto Start (with AMF)

DigitalAuto-start Generator controller integrating digital, intelligent and network techniques is used for automatic control system of diesel generator. It can carry out functions including automatic start/stop, data measure and alarming. Optionally assembled with the ATS, it can carry out auto-switching between the outer power and generating set power.(AMF)

Functions:

- ※ Automatic Start/Stop, Engine monitoring and protection
- ※ 3 start attempts failure and Automatic Crank Disconnect
- ※ Parameters display(V/A/Hz/Hour), Running hour counting
- ※ Charge alternator exciting and Charge alternator fail alarm
- ※ Settings can be adjustable via key buttons on front panel

Shutdown

- ※ Loss of Speed Signal
- ※ Alternator Under/Over Voltage
- ※ Alternator Under/Over Frequency
- ※ Mains Under/Over Voltage
- ※ Mains Under/Over Frequency
- ※ Under/Over Speed
- ※ Low Oil Pressure
- ※ High Engine Temperature

Warning:

- ※ Alternator Under/Over Voltage
- ※ Alternator Under/Over Frequency
- ※ Mains Under/Over Voltage
- ※ Mains Under/Over Frequency
- ※ Under/Over Speed
- ※ Low Oil Pressure Pre-Alarm
- ※ High Engine Temp. Pre-Alarm
- ※ High/Low Battery Voltage
- ※ Over-current
- ※ Periodic maintenance



HGM6110



DSE7320

Optional Parts:

Engine	Alternator	Fuel System	Canopy
<ul style="list-style-type: none"> ● Heater 2KW&4KW (Coolant & Lube Oil) ● Mains Electricity Battery Charger 	<ul style="list-style-type: none"> ● AVR PMG with regulator ● Anti-damp and anti-corrosion treatment ● Anti-condensation heater 	<ul style="list-style-type: none"> ● Low fuel level alarm ● Automatic fuel feeding system 	<ul style="list-style-type: none"> ● Super silent (65-68Db@1m) ● Normal silent (75-78Db@7m) ● Soundproof type (20ft/40ft container)
Lubricating System	Exhaust Gas System	Cooling System	Control Panel
<ul style="list-style-type: none"> ● Oil with the machine 	<ul style="list-style-type: none"> ● Protection board from hotness ● Low frequency silencer 	<ul style="list-style-type: none"> ● Front heat protection ● 50°C radiator ● Coolant(-30°C) 	<ul style="list-style-type: none"> ● Remote controller ● Auto-paralleling control panel ● Auto Transfer/changeover Switch(ATS)



Circuit Breaker



Paralleling System



ATS cabinet

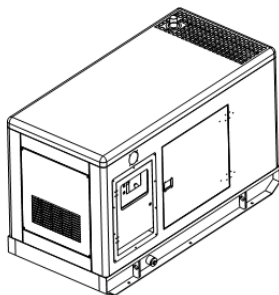


Super Silent canopy

Specifications may change without notice.

380-415V, 1500RPM, 50HZ, 3phase 4 wire,

Genset Model	Prime power		Standby power		Engine model	Alternator model	Dimension (Open type)	Weight (kg)	L/h @ 100%
	KW	KVA	KW	KVA					
DK16G	16	20	17.6	22	4BT3.9-G1	PI144E	1800*750*1450	820	5.4
DK20G	20	25	22	27.5	4B3.9-G1	PI144F	1900*750*1450	850	6.5
DK22G	22	27.5	24	30	4B3.9-G2	PI144F	1900*750*1450	850	6.7
DK32G	32	40	35.2	44	4BT3.9-G2	PI142H	1900*750*1450	880	9.3
DK40G	40	50	44	55	4BTA3.9-G2	UCI224D	1980*780*1500	915	11.5
DK48G	48	60	52.8	66	4BTA3.9-G2	UCI224E	1980*780*1500	920	13.1
DK64G	64	80	70.4	88	6BT5.9-G1	UCI224G	2350*830*1550	1250	22
DK80G	80	100	88	110	6BT5.9-G2	UCI274C	2350*830*1550	1250	22
DK100G	100	125	110	137.5	6BTA5.9-G2	UCI274E	2400*850*1600	1450	27
DK110G	110	137.5	120	150	6BTAA5.9-G2	UCI274E	2400*850*1600	1450	27
DK144G	144	180	160	200	6CTA8.3-G2	UCI274G	2500*880*1650	1750	40
DK160G	160	200	176	220	6CTAA8.3-G2	UCI274H	2550*910*1750	1820	45.4
DK172G	172	215	190	238	6CTAA8.3-G2	UCI274J	2550*910*1750	1920	45.4
DK200G	200	250	220	275	6LTAA8.9-G2	UCD274K	2800*1100*1700	2000	53
CK224G	224	280	250	313	NTA855-G1A	HCI444D	3300*1100*1700	3400	61.3
CK256G	256	320	280	350	NTA855-G1B	HCI444ES	3300*1100*1700	3400	71.4
CK280G	280	350	308	385	NTA855-G2A	HCI444E	3350*1100*1700	3450	71.9
CK300G	300	375	330	413	NTAA855-G7	HCI444FS	3500*1200*1750	3800	85.4
CK320G	320	400	360	450	NTAA855-G7A	HCI444F	3500*1200*1750	3850	94
CK360G	360	450	400	500	KTA19-G3	HCI544C	3600*1360*1920	4000	97
CK400G	400	500	450	563	KTA19-G4	HCI544C	3600*1400*2040	4100	107
CK440G	440	550	505	631	KTAA19-G5	HCI544D	3750*1700*2040	4500	113
CK472G	472	590	520	650	KTAA19-G6	HCI544E	3750*1700*2040	4500	113
CK500G	500	625	560	700	KTAA19-G6A	HCI544FS	3780*1700*2040	4700	127.8
CK600G	600	750	660	825	KTA38-G2	LVI634B	4500*1750*2300	7000	167
CK640G	640	800	704	880	KTA38-G2B	HCI634G	4550*1750*2300	7000	181
CK728G	728	910	800	1000	KTA38-G2A	LVI634D	4550*2060*2200	7500	191
CK800G	800	1000	880	1100	KTA38-G5	HCI634J	4600*2060*2200	7600	209
CK900G	900	1125	1000	1250	KTA38-G9	LVI634F	4600*2060*2200	7650	232
CK1000GB	1000	1250	1100	1375	KTAA38-G9A	LVI634G	4700*2100*2320	7950	274
CK1000G	1000	1250	1100	1375	KTA50-G3	LVI634G	5700*2100*2320	9800	254
CK1120G	1120	1400	1340	1675	KTA50-G8	PI734B	5800*2100*2350	10500	289
CK1200G	1200	1500	1340	1675	KTA50-G8	PI734C	5850*2100*2350	10600	295
YK1500G	1500	1875	1650	2063	QSK60-G3	PI734E	5900*2300*2400	16200	
YK1600G	1600	2000	1800	2250	QSK60-G4	PI734F	5900*2300*2400	16500	
YK1800G	1800	2250	2000	2500	QSK60-G8	EG500M-1800N	6000*2300*2750	18100	
YK2400G	2400	3000	2640	3300	QSK78G6	EG560L-2400N	7200*2250*2550	26200	



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480V, 1800RPM, 60HZ, 3phase 4 wire,

Genset Model	Prime power		Standby power		Engine model	Alternator model	Dimension	Weight	L/h
	KW	KVA	KW	KVA					
DK24G6	24	30	26.4	33	4B3.9-G1	BCI184E	1950*750*1500	850	7.2
DK35G6	35	44	39	48	4BT3.9-G1	BCI184H	1980*750*1500	950	10.1
DK52G6	52	65	55	69	4BTA3.9-G2	UCI224D	2100*780*1580	1050	13.8
DK90G6	90	113	100	125	6BT5.9-G1	UCI274C	2420*850*1700	1280	24
DK110G6	110	137.5	120	150	6BTA5.9-G2	UCI274D	2450*850*1720	1450	27
DK120G6	120	150	132	165	6BTAA5.9-G2	UCI274E	2480*850*1720	1520	28.5
DK160G6	160	200	176	220	6CTA8.3-G2	UCI274F	2650*900*1720	1700	42.6
DK180G6	180	225	200	250	6CTAA8.3-G2	UCI274G	2680*900*1720	1750	44
DK220G6	220	275	240	300	6LTAA8.9-G2	UCDI274J	2800*1050*1750	1980	56
CK250G6	250	312.5	280	350	NTA855-G1	UCDI274K	2750*1100*1600	2460	66
CK280G6	280	350	308	385	NTA855-G1B	HCI444D	3300*1100*1700	3350	74.5
CK300G6	300	375	330	413	NTA855-G3	HCI444D	3420*1150*1720	3600	79
CK352G6	352	440	388	485	KTA19-G2	HCI444E	3600*1350*1920	4100	92
CK400G6	400	500	440	550	KTA19-G3	HCI444F	3600*1400*1920	4150	99
CK450G6	450	563	500	625	KTA19-G4	HCI544C	3600*1400*1900	4100	112
CK475G6	470	588	550	688	KTAA19-G5	HCI544D	3720*1540*1960	4800	117
CK550G6	550	687.5	600	750	KTAA19-G6A	HCI544E	3780*1640*2040	4600	134
CK600G6	600	750	660	825	KT38-G	HCI544F	4400*1720*2300	6650	155
CK725G6	725	906	800	1000	KTA38-G2	LVI634C	4550*1750*2300	6950	183
CK800G6	800	1000	880	1100	KTA38-G2A	LVI634D	4600*2000*2500	7200	201
CK900G6	900	1125	1000	1250	KTA38-G4	LVI634E	4700*2000*2500	7600	229
CK1000G6	1000	1250	1100	1375	KTA38-G9	LVI634F	4900*2000*2500	7800	252
CK1120G6	1120	1400	1232	1540	KTA50-G3	LVI634G	5700*2100*2320	9800	285
CK1360G6	1360	1700	1500	1875	KTA50-G9	PI734B	5800*2100*2350	10500	318

