BLUE DIAMOND
MACHINERY

Denyo® Xtreme Diesel Generators

Powered by ISUZU Kubota

Xtreme Reliability –

Denyo are renowned as a world leading manufacturer of diesel generators. Designed and engineered for use in rental, mining and construction.

Xtreme Efficiency –

Using only the best premium Japanese engines such as Kubota and Isuzu.

Xtreme Performance –

Maintenance Free brushless Alternator and minimal soundwave distortion for sensitive equipment use.

Xtreme Back Up –

Denyo are renowned as one of the most reliable generators brands in the world. This, combine with the unparalleled support provided by Blue Diamond across Australia, means there is simply no better option available.

All units come with a 2 year, 1000 hour warranty

Xtreme Protection –

All Weather construction to eliminate rain penetration of the machine.

Xtreme Mobility –

Exceptionally compact and lightweight.

Xtreme Environmental Awareness –

Extremely quiet and the among most fuel efficient generators available anywhere in the world

BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

DENYO POWER GENERATORS are partners of our civil life

Denyo power generators are capable of generating power in various situations where public power supply is not available. They contribute to build infrastructure projects around the world. In a variety of situations like civil engineering and construction works.

Denyo engine power generators are capable of providing power at various sites where power is required like civil work and construction sites. As well as emergency power source for critical equipment like in hospitals, industries where refrigeration is required, construction and mining operations.

Built Tough.
Mine Spec Ready.

Xtreme Reliability –

Denyo are renowned as a world leading manufacturer of diesel generators. Designed and engineered for use in rental, mining and construction.

Xtreme Efficiency –

Using only the best premium Japanese engines such as Kubota and Isuzu.

Xtreme Performance –

Maintenance Free brushless Alternator and minimal soundwave distortion for sensitive equipment use.

Ready to transport anytime, anywhere.

Xtreme Back Up –

Denyo are renowned as one of the most reliable generators brands in the world. This, combine with the unparalleled support provided by Blue Diamond across Australia, means there is simply no better option available.

All units come with a 2 year, 1000 hour warranty

As the power source in the construction site.

Renowned reliability

PERFORMANCE FEATURES

HIGH-PERFORMANCE

The Denyo generating system guarantees the following levels of performance:

TEMPERATURE RISE: 100°C temperature rise at 40°C ambient (JEC2130).

INSULATION: ClassF (JEC2130).

VOLTAGE REGULATION: Within±0.5% (except DCA-400SP)

FREQUENCY REGULATION: Within 5.0% through no-load to full-load.

VOLTAGE WAVEFORM: Deviation Factor of open-circuit terminal voltage does not exceed 0.06.
Telephone Influence Factor (TIF) is less than 50.

ELECTROMAGNETIC INTERFERENCE LEVEL: Attenuated to meet most commercial requirements.

INSULATION RESISTANCE: Higher than 3 Mega-ohms, measured between armature windings and earth, field windings and earth, field control circuit and earth.

• The innovative excitation system* fitted on all models, in conjunction with the AVR and advanced brushless generator, provides fast voltage regulation in response to load variations, enabling use soon after start up. This system provides output stability during load variations.
*U.S.Patent No.4268788

• Synchronous brushless alternator for minimal wear.
• Designed to function in all climatic conditions.

• Will safely power the most sensitive loads, such as thyristors, invertors and computer systems, without the risk of damage to these loads, thanks to the high level electrical characteristics of the generator's output.

ECONOMICAL PERFORMANCE

—Easy starting and quick response.
—Utilising highly reliable diesel engines with low fuel consumption, manufactured by Japan's leading engine manufacturers.

UNSURPASSED FLEXIBILITY

To meet today's varying needs successfully, your equipment must be as flexible as you are. The Denyo DCA Series generator range provides you with the flexibility to get the job done simply and economically, without any delays.

TRUE HEAVY-DUTY PERFORMANCE

For a particular job, you may need that extra power from your generator. With the DCA Series, the standby power rating (110% or 105% load except DCA- 610SPM) can be used continuously for 1 hour in every 8 hours of continuous operation. This extra power performance of Denyo generators means you can get the job done, without the inconvenience of using another generator.

PARALLEL OPERATION FEATURE

(except for DCA-100 and below)
From time to time, at a construction site, mine site or in other situations, a large temporary power supply is required for a particular job. To meet this requirement Denyo's DCA Series generators incorporate a built-in parallel operation drive system, allowing you to create a large capacity generating plant on-site, without the need to procure any other equipment.

DUAL VOLTAGE SYSTEM

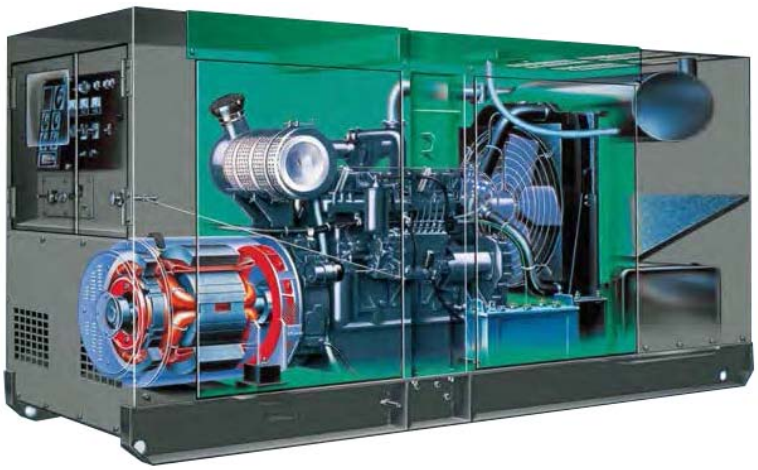
(optional for DCA-25USI3, 45ESI, 45USI2, 60ESH, 60USH)
For companies that operate internationally or have motors that require power at different voltages, a different generator is usually required for each voltage setting. However, the DCA Series generators are equipped with a dual voltage system, so one generator can be used to power motors with different voltage settings. An extremely convenient feature.

ALL MODELS CAN RUN AT 50Hz/60Hz

Simply adjust the engine speed on the control panel to use a DCA Series generator at either 50 Hz or 60 Hz.

EXTREMELY QUIET OPERATION

In urban areas and at the worksite, there is an ever increasing demand for reduced noise pollution. In response to these concerns, Denyo has pioneered a soundproof and super soundproof range of generators. The DCA Series generators are extremely quiet when operating at full load, even though all soundproof models are compactly designed. Check the specifications for the sound level of each model.



BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

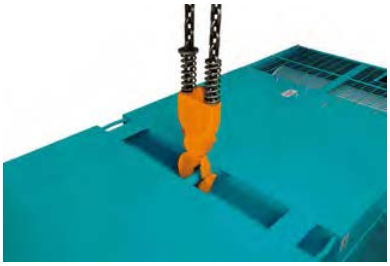
DENYO GENERATORS: DESIGNED TO BE TOTALLY USER-FRIENDLY

MAINTENANCE MADE SIMPLER

– All daily maintenance requi rements can be performed from one side of the machine. The large doors gives you full acces to the engine.
– External drain plugs for oil, fuel and water are fitted for convenience in performing routine maintenance.
– Large fuel gauge is fitted for simple viewing.
– For major engine overhauls, the bonnet can be simply unbolted, which allows full access to the engine.

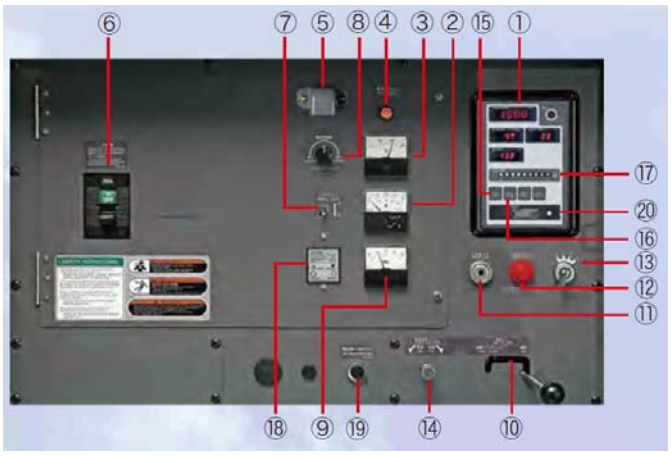
TRANSPORTABILITY

– The new designs of the DCA Series range have achieved significant size and weight reductions over previously producted models, through improvements in coupling techniques and alternator design.
– The sturdy weatherproof steel bonnet on a heavy-duty steel skid base allows easy handling by a forklift.
– The balance point lifting hook (lug) fitted on the roof of each machine facilitates easy transportation using a crane.
– All models are modular designed, so that generators can be stacked, thereby making the best use of your valuable storage area.



FULLY APPOINTED CONTROL PANELS FOR EASE OF USE AND MONITORING GENERATOR PERFORMANCE.

① Indicator
② AC Ammeter
③ Voltmeter
④ Pilot Lamp
⑤ Panel Light
⑥ Circuit Breaker
⑦ Panel Light Switch
⑧ Voltage Regulator
⑨ Frequency Meter
⑩ Throttle Lever
⑪ Preheat Lamp
⑫ Emergency Stop Button
⑬ Starter Switch
⑭ Frequency Adjust Screw
⑮ Warning Lamp（Oil Pressure）
⑯ Warning Lamp（Water Temperature）
⑰ Fuel Level Indicator
⑱ Earth Leakage Relay
⑲ Fuel Priming Pump Button
⑳ Hour Meter



Provision of Various Protective Devices and Warning Lamps

– A circuit breaker is provided to protect the generator from shorting of the load circuit or an overload.
– An emergency stop device is provided to automatically detect an engine malfunction and shut down the unit, as well as a warning lamp.

BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

SPECIFICATION TABLE (13kVA ~ 45kVA CLASS SOUNDPROOF TYPE)

MODEL		DCA-13LSK		DCA-13LSY		DCA-15LSK		DCA-20LSK		DCA-25ESK		DCA-25ESI		DCA-35SPK		DCA-45ESI	
ALTERNATOR																	
Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60
Output Rating(kVA)	Continuous	10.5	13	10.5	13	12.5	15	17	20	20	25	20	25	30	35	37	45
	Standby	11	13.7	11.5	14	13.8	16.5	18.7	22	22	27.5	22	27.5	31.5	36.75	38.9	47.3
No.of Phases		3-Phase,4-Wire															
Rated Voltage*1	V	① or ③ Single Voltage								② Dual Voltage				① or ③ Single Voltage		② Dual Voltage	
Power Factor		0.8(Lagging)															
Voltage Regulation	%	Within ±0.5															
Excitation		Brushless,Rotating Exciter (With A.V.R)															
Insulation		Class F														Class H	
ENGINE																	
Maker & Model		Kubota D1403-K3A		Yanmar 3TNV84-G		Kubota D1703-K3A		Kubota V2203-K3A		Kubota V2203-KB		Isuzu AA-4LE2		Kubota V3300-EB		Isuzu BB-4JG1T	
Type		Inlined, Swirl Chambered		Inlined, Direct Injected		Inlined, Swirl Chambered						Inlined, Direct Injected		Inlined, Swirl Chambered		Inlined,Direct Injected, Turbocharged	
Output Rating	PS/rpm	13.7/1500	16.9/1800	15.3/1500	18.3/1800	16.9/1500	20/1800	23.1/1500	27.1/1800	25/1500	32.2/1800	26/1500	32/1800	38.5/1500	44.1/1800	46.5/1500	56/1800
	kW/rpm	10.2/1500	12.4/1800	11.3/1500	13.5/1800	12.4/1500	14.7/1800	17.0/1500	19.9/1800	18.4/1500	23.71800	19.1/1500	23.5/1800	28.3/1500	32.4/1800	34.2/1500	41.2/1800
No.of Cylinders-Bore×Stroke	mm	3-80×92.4		3-84×90		3-87×92.4		4-87×92.4		4-87×92.4		4-85×96		4-98×110		4-95.4×107	
Piston Displacement	L	1.393		1.496		1.647		2.197		2.197		2.179		3.318		3.059	
Fuel		ASTM No. 2 Diesel Fuel or Equivalent															
Fuel Consumption*2	L/h	2.4	2.9	2.1	2.6	2.8	3.4	3.6	4.3	3.9	4.9	3.3	4.2	5.8	6.9	6.8	8.6
Lube Oil Sump Capacity	L	5.6		6.7		5.6		7.6		7.6		8.5		13.2		10	
Coolant Capacity	L	6.4		3.9		6.4		7.9		7.9		6.6		10.5		10.9	
Battery×Quantity		80D26R×1												95D31R×1			
Fuel Tank Capacity	L	62										70		82		100	
UNIT																	
Dimensions	Length mm	1390		1390		1390		1540		1540		1540		1900		1900	
	Width mm	650		650		650		650		650		680		860		880	
	Height mm	900		900		900		900		900		900		990		1250	
Dry Weight	kg	503		490		516		580		591		564		890		960	
SOUND LEVEL																	
7m dB (A) 1500/1800 rpm (min-1)*3		58	61	61	62	60	63	61	64	62	64	60	64	60	63	60	62

*1 Rated Voltage Classification

Frequency	50Hz	60Hz
①	190~220V	200~240V
②	190~220V 380~440V	190~240V 380~480V
③	380~440V	380~480V
④	190~220V (380~440V)	200~240V (380~480V)

( ) indicates options.

*2 Fuel consumption is based on operation at 75% load.

*3 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

*4 Depending on location and area,output voltage may differ from values listed in catalog.

DCA-13LSK

DCA-15LSK

DCA-25ESK

DCA-25ESI


DCA-35SPK

DCA-45ESI

BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

SPECIFICATION TABLE (60kVA~150kVA CLASS SOUNDPROOF TYPE)

MODEL		DCA-60ESH		DCA-60ESI2		DCA-75SPI		DCA-100ESI		DCA-125SPK3		DCA-150ESK	
ALTERNATOR													
Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60
Output Rating(kVA)	Continuous	50	60	50	60	65	75	80	100	100	125	125	150
	Standby	55	66	55	66	68.3	78.8	88	110	110	138	138	165
No.of Phases		3-Phase,4-Wire											
Rated Voltage*1	V	④Single Voltage (Dual Voltage is an option)		②Dual Voltage									
Power Factor		0.8(Lagging)											
Voltage Regulation	%	Within ±0.5											
Excitation		Brushless,Rotating Exciter(With A.V.R)											
Insulation		Class F		Class H		Class F							
ENGINE													
Maker & Model		Hino W04D-TG		Isuzu BB-4BG1T		Isuzu A-6BG1		Isuzu DD-6BG1T		Komatsu SA6D102E-1-A		Komatsu SAA6D102E-2-D	
Type		Inlined,Direct Injected, Turbocharged				Inlined,Direct Injected		Inlined,Direct Injected, Turbocharged		Inlined,Direct Injected Turbocharged, Aftercooled			
Output Rating	PS/rpm	66/1500	78/1800	65/1500	77/1800	80/1500	93/1800	100/1500	124/1800	133/1500	157/1800	153/1500	183/1800
	kW/rpm	48.5/1500	57.4/1800	47.9/1500	57.1/1800	58.8/1500	68.4/1800	73.6/1500	91.3/1800	97.8/1500	115.5/1800	113/1500	135/1800
No.of Cylinders-Bore×Stroke	mm	4-104×118		4-105×125		6-105×125		6-105×125		6-102×120		6-102×120	
Piston Displacement	L	4.009		4.329		6.494		6.494		5.880		5.880	
Fuel		ASTM No. 2 Diesel Fuel or Equivalent											
Fuel Consumption*2	L/h	8.8	10.6	8.7	11.0	10.8	12.5	13.5	17.4	15.5	20.1	20.6	25.0
Lube Oil Sump Capacity	L	16.5		13.2		19.3		22.4		22		22	
Coolant Capacity	L	12.2		15.4		22.9		22.0		23.9		28.4	
Battery×Quantity		80D26R×2		95D31R×1		95E41R×2		95D31R×2		95E41R×2			
Fuel Tank Capacity	L	125		125		155		225		250			
UNIT													
Dimensions	Length mm	2050		2200		2630		2750		3000		3250	
	Width mm	880		880		1000		1050		1080		1080	
	Height mm	1250		1250		1300		1350		1500		1500	
Dry Weight	kg	1240		1120		1590		1730		2120		2390	
SOUND LEVEL													
7m dB (A) 1500/1800 rpm (min-1)*3		61	64	61	64	61	63	59	61	63	66	62	65

*1 Rated Voltage Classification

	50Hz	60Hz
②	190~220V 380~440V	190~240V 380~480V
④	190~220V (380~440V)	200~240V (380~480V)

( ) indicates options.

*2 Fuel consumption is based on operation at 75% load.

*3 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

*4 Depending on location and area,output voltage may differ from values listed in catalog.

DCA-60ESI2

DCA-75SPI

DCA-100ESI

DCA-125SPK3

DCA-150ESK

BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

SPECIFICATION TABLE (220kVA~600kVA CLASS SOUNDPROOF TYPE)

MODEL		DCA-220ESM		DCA-220SPK3		DCA-300SPK3		DCA-400SPK		DCA-500SPK		DCA-600SPV	
ALTERNATOR													
Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60
Output Rating(kVA)	Continuous	200	220	200	220	270	300	350	400	450	500	550	600
	Standby	220	242	220	242	297	330	385	440	495	550	605	660
No.of Phases		3-Phase,4-Wire											
Rated Voltage*1	V	②Dual Voltage											
Power Factor		0.8(Lagging)											
Voltage Regulation	%	Within ±0.5						Within ±1.0		Within ±0.5			
Excitation		Brushless,Rotating Exciter (With A.V.R)											
Insulation		Class F											
ENGINE													
		Mitsubishi 6D24-TLE2B		Komatsu S6D125E-2-A		Komatsu SA6D125E-2-A		Komatsu SA6D140-A		Komatsu SA6D170-B		Volvo TAD1642GE	
Type		Inlined,Direct Injected, Turbocharged,Aftercooled		Inlined,Direct Injected, Turbocharged		Inlined,Direct Injected,Turbocharged,Aftercooled							
Output Rating	PS/rpm	246/1500	270/1800	242/1500	277/1800	316/1500	350/1800	421/1500	485/1800	520/1500	580/1800	659/1500	723/1800
	kW/rpm	181/1500	199/1800	178/1500	204/1800	232/1500	257/1800	310/1500	357/1800	382/1500	427/1800	485/1500	532/1800
No.of Cylinders-Bore×Stroke	mm	6-130×150		6-125×150				6-140×165		6-170×170		6-144×165	
Piston Displacement	L	11.940		11.040				15.240		23.150		16.120	
Fuel		ASTM No. 2 Diesel Fuel or Equivalent											
Fuel Consumption*2	L/h	33.7	38.1	31.5	35.7	43.6	50.0	52.1	60.8	69.5	83.1	81.2	91.7
Lube Oil Sump Capacity	L	37		42		62		74		119		48	
Coolant Capacity	L	42		36		35		68.4		92.5		93	
Battery×Quantity		145G51×2 or 155G51×2						190H52×2 or 210H52×2					
Fuel Tank Capacity	L	380				490							
UNIT													
Dimensions	Length mm	3700		3650		3750		4200		5480(5000*3		5180 (4700*3	
	Width mm	1300		1300		1400		1400		1650		1650	
	Height mm	1750		1750		1800		2100		2400		2400	
Dry Weight	kg	3630		3670		4160		5420		8540		7535	
SOUND LEVEL													
7m dB (A) 1500/1800 rpm (min-1)*4		61	63	63	65	68	71	67	68	68	71	72	75

*1 Rated Voltage Classification

Frequency	50Hz	60Hz
②	190～220V 380～440V	190～240V 380～480V

*2 Fuel consumption is based on operation at 75% load.
*3 Shown unit lengths are with visor. (without visor)
*4 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.
*5 Depending on location and area,output voltage may differ from values listed in catalog.

DCA-220ESM

DCA-220SPK3

DCA-400SPK

DCA-500SPK

BLUE DIAMOND MACHINERY

Denyo Xtreme Diesel Generators

TRAILER

Trailers can be fitted to generators to facilitate on-site movement.
(trailers for DCA-60 and below are two-wheel;those for DCA-75SP through 400 are four-wheel)
Bolt connectors make mounting and dismounting simple.

HOW TO SELECT A GENERATOR

Range of motor capacities that can be used with Denyo generators.
Choosing generator output according to motors and other loads is made simple by referring to the motor capacity range and generator output in this table.

Item \ Model		DCA-13		DCA-15		DCA-20		DCA-25		DCA-35		DCA-45		DCA-60	60
Frequency(Hz)		50	60	50	60	50	60	50	60	50	60	50	60	50	60
EG capacity(kVA)		10.5	13	12.5	15	17	20	20	25	30	35	37	45	50	20.5
Motor capacity(kW)	Direct startup	3.4	4.1	4	5	5.4	6.3	6.3	7.6	9.4	11.6	12.3	14.9	16	30.8
	Y-△ startup(1)	5.2	6.4	6	7.5	8.2	9.5	9.5	11.4	14.3	17.5	18.5	22.4	24	46
	Y-△ startup(2)	8.3	10.2	9.6	11.9	13.1	15.7	15.7	19.5	23.1	27.7	28.2	34.3	38.4	

Item \ Model		DCA-75		DCA-100		DCA-125		DCA-150		DCA-220		DCA-300		DCA-400	60
Frequency(Hz)		50	60	50	60	50	60	50	60	50	60	50	60	50	60
EG capacity(kVA)		65	75	80	100	100	125	125	150	200	220	270	300	340	400
Motor capacity(kW)	Direct startup	21.5	25	27.2	34.5	34.5	42.5	42.5	51	68	76	91	102	115	136
	Y-△ startup(1)	32.3	37.5	40.8	51.8	51.8	63.8	63.8	76.5	102	114	136	153	173	204
	Y-△ startup(2)	48.8	58	62	68	68	97	97	115	151	172	208	231	262	308

Item \ Model		DCA-500		DCA-600/610		DCA-800		DCA-1100	
Frequency(Hz)		50	60	50	60	50	60	50	60
EG capacity(kVA)		450	500	550/554	600/610	700	800	1000	1100
Motor capacity(kW)	Direct startup	155	175	185	205	210	243	306	337
	Y-△ startup(1)	233	263	278	308	315	365	459	505
	Y-△ startup(2)	351	390	432	460	508	575	734	808

Notes
- Momentary voltage drop when a motor starts up is assumed to be within 30% of no- load voltage.
- Motor startup kVA is assumed to be 7kVA per 1kW.
- Motor efficiency is assumed to be 85%, and load factor about 90%.
- Values shown for Y-△startup(1) and Y-△ startup(2) are open and closed, respectively; needed generator capacity differs depending on
- startup state. Not appropriate for determining the capacity of emergency generating equipment （especially disaster-prevention generating equipment）

Motor usage examples in the above table are benchmark values: generator capacity will differ according to the required momentary voltage drop, motor load factor, and size of startup capacity, as well as motor age and efficiency.

BLUE DIAMOND MACHINERY

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