AIRMAN® also provides you with the following products

Engine Compressor

Standard / High Pressure / After-cooler / Dry-air type

Free air delivery: 65 - 1,550 CFM
Operating pressure: 0.69 - 2.5 MPa

Motor Compressor

Oil injection / Oil free / Indoor / Outdoor type

Rated output: 3.7 - 200 kW

Scissors Lifter

Self-propelled / Hand push type

Max. height above ground: 3.2 - 9.9 m

Mini-Excavator

Zero-tail swing type

Operating weight: 1,110 - 5,210 kg

AIRMAN CORPORATION
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https://www.airman.co.jp

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https://www.hokuetsu.eu

AIRMAN USA CORPORATION
95 International PKWY, Suite 100, Adairsville, GA 30103
Tel: 1-678-800-7070 Fax: 1-770-769-4335
https://airman-usa.com

OUR HEAD OFFICE AND PLANT ARE CERTIFIED TO BOTH ISO 9001 AND ISO 14001.

Niigata plant:
Shimo Aozu, Tsubame-city, Niigata-prefecture, Japan.

ISO 9001
ISO 14001

ISO9001 : JQA-0581
ISO14001 : JQA-EM4670

DISTRIBUTOR :

No.01 SDG EN 25-11 Ⓙ

AIRMAN®

Portable Diesel Genset

ENGINE GENERATORS

AIRMAN CORPORATION

Easier Operation and More Advanced Generator

AIRMAN SDG series

Since 1970, Airman has developed and sold the brash-less generators, our advanced generators, which is developed by our long experience and original technologies, succeeded to spread through our new machines.

Airman will strive to develop our products which has the concept “Environmentally and ECO” friendly day by day.

Model Lineup

Series		Model [Prime Output (kVA)]													
	50Hz	10.5	20	37	50	80	100	125	200	270	350	450	555	700
	60Hz	13	25	45	60	100	125	150	220	300	400	500	610	800
Standard	SDG-S													
Leak-Guard	SDG-L													
+ Large fuel tank	SDG-LX													
+ 3P4W / 1P3W multi output	SDG-LA													
+ 3P4W / 1P3W multi output & Large fuel tank	SDG-LAX													
Ultra Super Silent 〈new leak guard〉	SDG-ZL													
+ Large fuel tank	SDG-ZLX													
+ 3P4W / 1P3W multi output	SDG-ZLA													
+ 3P4W / 1P3W multi output & Large fuel tank	SDG-ZLAX													
Conventional model	SDG-AS													
Built-in Inverter	V-Pump													

Model that complies with JPN Stage 3 exhaust gas regulations　Model that complies with JPN Stage 2 exhaust gas regulations

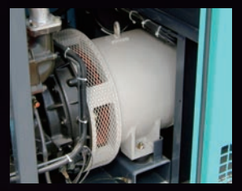
High Performance

Outstanding generation performance

Due to the big drop of Transient Reactance and the reinforcement of the damper winding, we are succeeded to improve our brushless alternator much tolerance dose and few distortion of the wave form.
It is suitable for use of invertor, thyristor, PC, lightning, precision instrument, measurement hardware.

Preset Voltage Regulation
within 0.5%

※ some models are excluded.



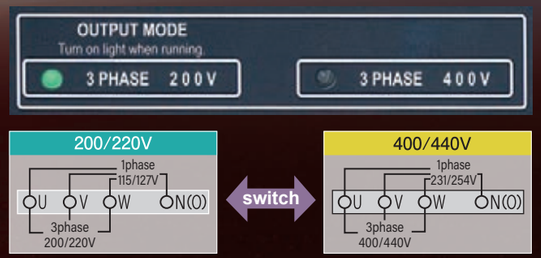
Cation electrodeposition coating

We have adopted the electrodeposition coating, baking finish coating for weather proof, and anti-corrosion and salt pollution.

Dual voltage: standard specification

(excluding some models such as SDG25S-3A8/R, SDG45SE)

We can convert 200/220V⇔400/440V of 3 phase voltage each other by switching short-circuit plates in the control box. When the engine is started, the indicator light in the operation box is turn on , and we can recognize the voltage level immediately.



Auto parallel operation (option)

(more than SDG400, option upon manufacture)

By attached controller in the generator, it is synchronized and shared “stop and go running” automatically.
And according to the load, Up to 8 units of machines will be operated each other.

Manual parallel operation

(more than SDG150)

With our well-controlled AVR (Automatic Voltage Regulator) and CCR (Cross Current Regulator), Machine is controlled by the Manual Parallel Operation. (When they are running, we must always monitor them.)

Eco Friendly

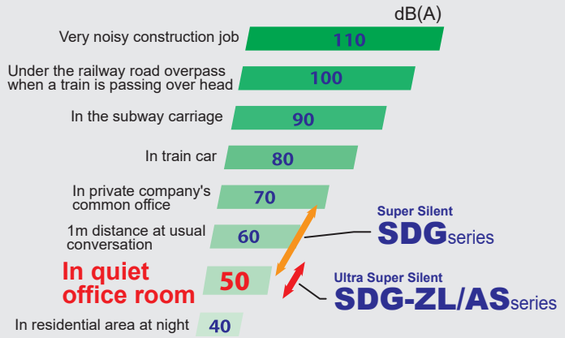
Silences

We are succeeded to be silent by adopting the silent engine, and the high-performance muffler, the special exhaust-duct. Furthermore we are succeeded to achieve more silent noise level by adopting the perfect sealed panel and super-silent "intake manifold".
And we have achieved less vibration by applying the new support method of the muffler.

SDG13S～220S
Ultra Super Silent
SDG25/45ZL
SDG60S～150AS

SDG300S～800S

Noise Level (at 7 meters distance from the machine at no load)



Easy Operation

Quick-start engine

［SDG13- SDG220］
We are applying the quick-heating "glow-plug" for preheat engine. And we are succeed to be quick start in low temperature.

［SDG220 – SDG800］
We are mounting the quick-start engine which is improved turbo and governor for using the hand-auger or vibro-hammer.

Control box

We have developed "one" control panel which is combined engine control and generator control.

SDG60L Panel

① 200V, 400V signals
② Alarm lamp
③ Panel light
④ Frequency meter
⑤ Amp meter
⑥ Voltage meter
⑦ Voltage controller
⑧ 3Phase breaker
⑨ Single phase breaker
⑩ Water temperature meter
⑪ Fuel meter & time meter
⑫ Electric leakage relay
⑬ Starter switch
⑭ Frequency switching switch
⑮ Frequency adjustment switch
⑯ Operation mode switching switch

Safety

Various kinds of safety devices

Overcurrent, Short circuit protection
Protect the machine by shutting down the breaker when overcurrent or short circuit occurs.

Electric leakage protection
In case of electric leakage , 3-Phase & single phase breaker will be shutdown with warning light on.

Oil fence alarm
If fuel, oil, water, etc. accumulate in the oil fence by more than a specified amount, it will be announced by an alarm lamp on the monitor.

Easy Maintenance

Automatic air bleeding system

(SDG13~150)

Automatic Air Bleeding Device is equipped to automatically bleed air from fuel line system. This eliminates the need to prime the fuel system again should the generator be shutdown due to running out of fuel. Simply top up the fuel and turn the key switch to operation position, air in the fuel line system is bled automatically.

Stainless bolt

We use stainless bolts on front cover and left-side door which have to be removed when performing maintenance to prevent bolts from rusting. Also we reduce the risk of broken bolts on bonnet that might be resulted from knocking by minimizing the bolts' quantity.

Standard **SDG** series

SDG13S-3B1

200 ↔ 400
Dual Voltage

SDG25S-3B1

200 ↔ 400
Dual Voltage

SDG25S-3A8

400
Single Voltage

SDG45S-3B2

200 ↔ 400
Dual Voltage

Item \ Model			SDG13S -3B1※1		SDG25S -3B1※1		SDG25S -3A8※1		SDG25S -3A8R※1		SDG45S -3B2		SDG45SE -3B2	
GENERATOR														
Frequency		Hz	50	60	50	60	50	60	50	60	50	60	50	60
Power supply			Dual Voltage				Single Voltage				Dual Voltage		Single Voltage	
3 phase 4 wires 400V Class	Prime output	kVA	10.5	13	20	25	20	25	20	25	37	45	37	45
	Standby output		11.5	14.3	22	27.5	22	27.5	22	27.5	40.7	49.5	40.7	49.5
	Voltage	V	400	440	400	440	400	440	400	440	400	440	400	440
	Ampere	A	15.2	17.1	28.9	32.8	28.9	32.8	28.9	32.8	53.4	59	53.4	59
3 phase 4 wires 200V Class	Prime output	kVA	10.5	13	20	25	-	-	-	-	37	45	-	-
	Standby output		11.5	14.3	22	27.5	-	-	-	-	40.7	49.5	-	-
	Voltage	V	200	220	200	220	-	-	-	-	200	220	-	-
	Ampere	A	30.3	34.1	57.7	65.6	-	-	-	-	107	118	-	-
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0											
ENGINE														
Brand			KUBOTA											
Model			D1503-K3A		V2403-K3A		V2403-E2B				V3600-T-K3A			
Type			Swirl chamber								Swirl chamber, Turbo-Charged			
Fuel injection/control method			Mechanical In-line Pump											
Emission stage			JPN Stage 3				JPN Stage 2				JPN Stage 3			
Rated output		kW [HP]	11.5 [15.4]	13.7 [18.4]	19.1 [25.6]	23.7 [31.8]	19.1 [25.6]	23.7 [31.8]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	35.0 [46.9]	42.5 [57.0]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	6.5		9.5						13.2			
Fuel tank capacity		L	58		70				62		100			
Coolant capacity		L	5.7		7.0						11.0			
Battery			85D26R×1											
WEIGHT DIMENSION														
Length		mm	1,480		1,550				1,640		1,870			
Width		mm	650		700				650		860			
Hight		mm	950		980		1,010		900		1,220			
Dry (Operating) weight		kg	520 (580)		610 (680)		625 (695)		610 (680)		910 (1,020)			
NOISE LEVEL														
Sound power level in decibels		dB	83		90		92				88			
Sound pressure level		dB(A)	55	57	59	63	61	64	63	66	58	61	58	61

Notes: 1. Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary. 5. Specifications are subject to change without notice.

SDG60S-3B1

200 ↔ 400
Dual Voltage

SDG100S-3B1

200 ↔ 400
Dual Voltage

SDG125S-3B1

200 ↔ 400
Dual Voltage

SDG60S-3A6

200 ↔ 400
Dual Voltage

Item \ Model			SDG60S -3B1※1		SDG100S -3B1※1		SDG125S -3B1※1		SDG60S -3A6※1		SDG100S -3A5※1	
GENERATOR												
Frequency		Hz	50	60	50	60	50	60	50	60	50	60
Power supply			Dual Voltage									
3 phase 4 wires 400V Class	Prime output	kVA	50	60	80	100	100	125	50	60	80	100
	Standby output		55	66	88	110	110	137.5	55	66	88	110
	Voltage	V	400	440	400	440	400	440	400	440	400	440
	Ampere	A	72.2	78.7	115	131	144	164	72.2	78.7	115	131
3 phase 4 wires 200V Class	Prime output	kVA	50	60	80	100	100	125	50	60	80	100
	Standby output		55	66	88	110	110	137.5	55	66	88	110
	Voltage	V	200	220	200	220	200	220	200	220	200	220
	Ampere	A	144	157	231	262	289	328	144	157	231	262
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0									
ENGINE												
Brand			ISUZU									
Model			BJ-4JJ1X		BI-4HK1X				BB-4BG1T		DD-6BG1T	
Type			Direct-Injection, Turbo-Charged, Intercooled						Direct-Injection, Turbo-Charged			
Fuel injection/control method			Mechanical In-line Pump		Common Rail + ECU				Mechanical In-line Pump			
Emission stage			JPN Stage 3						JPN Stage 2			
Rated output		kW [HP]	51.6 [69.2]	61.0 [81.8]	96.3 [129.1]	113.6 [152.3]	96.3 [129.1]	113.6 [152.3]	48.1 [64.5]	57.4 [77.0]	73.6 [98.7]	91.2 [122.3]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	15.0		20.5				14.0		18.0	
Fuel tank capacity		L	125		220		250		135		225	
Coolant capacity		L	11.5		21.5				15.0		24.0	
Battery			95D31R×1		170F51×1				85D26R×1		95D31R×2	
WEIGHT DIMENSION												
Length		mm	2,080		2,460		2,690		2,090		2,600	
Width		mm	1,000		1,180				860		1,000	
Hight		mm	1,220		1,380				1,220		1,400	
Dry (Operating) weight		kg	1,110 (1,240)		1,700 (1,930)		1,820 (2,070)		1,120 (1,260)		1,640 (1,870)	
NOISE LEVEL												
Sound power level in decibels		dB	90		92				90		91	
Sound pressure level		dB(A)	58	62	60	64	61	64	59	63	61	64

※1 The emergency stop button is optional.

Standard **SDG** series

SDG150S-3B1

SDG220S-3A7

SDG300S-3A6

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

Item \ Model			SDG150S -3B1 ※1		SDG220S -3A7		SDG300S -3A6 ※1	
GENERATOR								
Frequency		Hz	50	60	50	60	50	60
Power supply			Dual Voltage		Dual Voltage (Manual parallel)			
3 phase 4 wires 400V Class	Prime output	kVA	125	150	200	220	270	300
	Standby output		137.5	165	220	242	297	330
	Voltage	V	400	440	400	440	400	440
	Ampere	A	180	197	289	289	390	394
3 phase 4 wires 200V Class	Prime output	kVA	125	150	200	220	270	300
	Standby output		137.5	165	220	242	297	330
	Voltage	V	200	220	200	220	200	220
	Ampere	A	361	394	577	577	779	787
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0					
ENGINE								
Brand			ISUZU		KOMATSU			
Model			BH-6HK1X		SAA6D125E-2-B			
Type			Direct-Injection, Turbo-Charged, Intercooled					
Fuel injection/control method			Common Rail + ECU		Mechanical In-line Pump			
Emission stage			JPN Stage 3		JPN Stage 2			
Rated output		kW [HP]	119 [159.6]	142 [190.4]	178 [238.7]	204 [273.6]	232 [311.1]	257 [344.6]
Rated rotation speed		min-1	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	38.0		42.0		62.0	
Fuel tank capacity		L	250		390		490	
Coolant capacity		L	28.3		46.4		48.4	
Battery			105D31R×2		170F51×2			
WEIGHT DIMENSION								
Length		mm	3,190		3,700		3,900	
Width		mm	1,180		1,300		1,400	
Hight		mm	1,470		1,750		1,760	
Dry (Operating) weight		kg	2,210 (2,480)		3,290 (3,700)		3,790 (4,290)	
NOISE LEVEL								
Sound power level in decibels		dB	95		95		98	
Sound pressure level		dB(A)	63	66	64	65	66	69

Notes: 1.Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary. 5. Specifications are subject to change without notice.

SDG400S-3A6

SDG500S-3A6

SDG610S-3AK6

SDG800S-3A7

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

Item \ Model			SDG400S -3A6 ※1		SDG500S -3A6 ※1		SDG610S -3AK6 ※1		SDG800S -3A7	
GENERATOR										
Frequency		Hz	50	60	50	60	50	60	50	60
Power supply			Dual Voltage (Manual parallel)							
3 phase 4 wires 400V Class	Prime output	kVA	350	400	450	500	555	610	700	800
	Standby output		385	440	495	550	610	671	770	880
	Voltage	V	400	440	400	440	400	440	400	440
	Ampere	A	505	525	650	656	801	800	1,010	1,050
3 phase 4 wires 200V Class	Prime output	kVA	350	400	450	500	555	610	700	800
	Standby output		385	440	495	550	610	671	770	880
	Voltage	V	200	220	200	220	200	220	200	220
	Ampere	A	1,010	1,050	1,299	1,312	1,602	1,600	2,021	2,100
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0							
ENGINE										
Brand			KOMATSU							
Model			SA6D140E-3-A		SAA6D140E-3-B		SA6D170-A-1		SAA12V140E-3	
Type			Direct-Injection, Turbo-Charged, Intercooled							
Fuel injection/control method			Common Rail + ECU							
Emission stage			JPN Stage 2				-			
Rated output		kW [HP]	310 [415.7]	357 [478.7]	382 [512.3]	427 [572.6]	485 [650.4]	561 [752.3]	613 [822.0]	752 [1,008.4]
Rated rotation speed		min-1	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	79.0		91.5		119		193.4	
Fuel tank capacity		L	490						730	
Coolant capacity		L	75.0		101.5		141		175.6	
Battery			225H52×2						245H52×4	
WEIGHT DIMENSION										
Length		mm	4,150		4,550		4,650		5,350 (5,665) ※2	
Width		mm	1,400		1,600				1,900	
Hight		mm	2,040		2,090		2,350		2,450	
Dry (Operating) weight		kg	5,120 (5,670)		6,170 (6,760)		7,320 (7,960)		10,370 (11,310)	
NOISE LEVEL										
Sound power level in decibels		dB	99		100		102			
Sound pressure level		dB(A)	67	70	67	70	69	72	69	74

※1 The emergency stop button is optional.
※2 Dimensions with visor included are indicated in ( ).

SDG-L
Leak-guard engine generator

SDG-LX
Large fuel tank mounted
leak-guard engine generator

SDG-LA
3 and single phase capable multi output
leak-guard Able generator

SDG-LAX
Large fuel tank mounted leak guard engine generator
3 and single phase capable multi output leak-guard Able generator

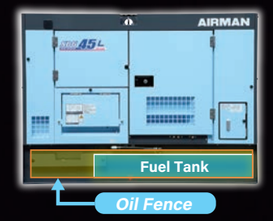
SDG-L

L = Leak-guard

Prevent as much as possible outflow of oil etc. Oil fence mounted “LEAK-GUARD” type

In case of leakage of fuel or oil on the oil fence, it will prevent leakage to the outside as much as possible. Space capacity of the oil fence has secured more than ×100% (fuel + oil + cooling water).

*All oil leaks are not guaranteed.



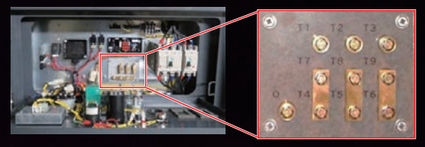
Dual voltage is standard

3 phase Voltage can switch to 200/220V ⇔ 400/440v
When starting the engine, the three-phase output voltage indicator on the control panel lights and you can see the voltage being used at a glance.

Can see the voltage being used at a glance.

Bus bar type voltage switching board

To switch the voltage of three-phase output (200 / 220V ⇔ 400 / 440V), a bus bar type voltage switching board which can be switched easily is attached.



Drainage hose makes it easy to drain oil

Engine oil discharge hose is equipped as standard.
It is easily possible to discharge the engine oil.

Equipped with a convenient earth bar storage box

Equipped the earth bar box beside the frame.
You can store it with keeping attached the wire.

Equipped the emergency stop button

Equipped the emergency stop button beside the operation panel.

Considered convenience total heights below 1,350mm

By setting the total height of the SDG25L/45L/60L to 1350 mm or less.

*SDG25L is total height 1090mm

SDG45L model is equipped with less unburned fuel emissions engine

SDG45L model is equipped with less unburned fuel emissions engine in the low load, V3600-T-K3A which is applied swirl chamber type turbocharged engine.

SDG-LX

L = Leak-guard
X = Large fuel tank

Large fuel tank mounted

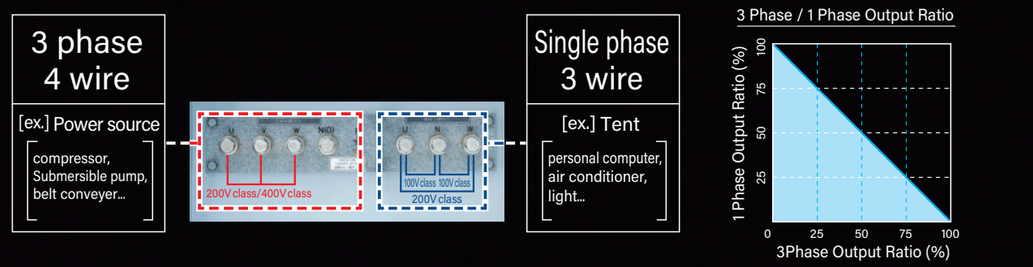
Large fuel tank mounted as standard. It makes possible long time operation without external fuel tank.

SDG-LA

L = Leak-guard
A = 3P4W / 1P3W Multi output

3 phase 4 wires / single phase 3 wires capable multi output / No need to switch

Three-phase 4-wire and single-phase 3 wire can be used at the same time. One unit can handle various power supplies.



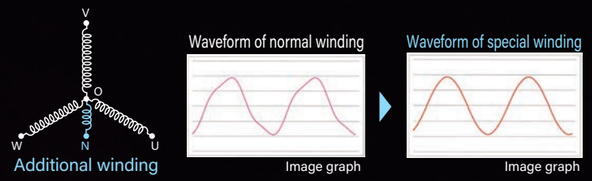
Easy checking of power generation status with ammeter

The total current of three phases and single phase can be confirmed with the familiar analog amp meter as before. Allowable current value is listed on the inscription next to ammeter, so it is obvious.

Ammeter Caution Plate

Excellent voltage waveform

Special winding is adopted as additional winding, and even in single phase 3 wire output, it provides high quality electricity with less distortion of waveform.
(Patent has already been applied)



Adopted a leakage relay of "selective cutoff method"

Detect whether three-phase or single-phase electric leakage is occurring, and only tripping the circuit breaker with the electric leakage.

SDG-LAX

L = Leak-guard
A = 3P4W / 1P3W Multi output
X = Large fuel tank

Large fuel tank mounted

Large fuel tank mounted as standard. It makes possible long time operation without external fuel tank.

Leak-Guard **SDG-L** *series*

SDG25L-5B1

SDG45L-5B2

SDG60S-7A6 (Oil fence)

SDG100L-5B1

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

200 ↔ 400 Dual Voltage

200 400 Dual Voltage One-touch switching

Item \ Model			SDG25L -5B1		SDG45L -5B2		SDG60L -5B1		SDG60S -7A6 ※		SDG100L -5B1	
GENERATOR												
Frequency		Hz	50	60	50	60	50	60	50	60	50	60
Power supply			Dual Voltage									
3 phase 4 wires 400V Class	Prime output	kVA	20	25	37	45	50	60	50	60	80	100
	Standby output	kVA	22	27.5	40.7	49.5	55	66	55	66	88	110
	Voltage	V	400	440	400	440	400	440	400	440	400	440
	Ampere	A	28.9	32.8	53.4	59.0	72.2	78.7	72.2	78.7	115	131
3 phase 4 wires 200V Class	Prime output	kVA	20	25	37	45	50	60	50	60	80	100
	Standby output	kVA	22	27.5	40.7	49.5	55	66	55	66	88	110
	Voltage	V	200	220	200	220	200	220	200	220	200	220
	Ampere	A	57.7	65.6	107	118	144	157	144	157	231	262
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0									
ENGINE												
Brand			KUBOTA				ISUZU					
Model			V2403-K3A		V3600-T-K3A		BJ-4JJ1X		BB-4BG1T		BI-4HK1X	
Type			Swirl chamber		Swirl chamber, Turbo-Charged		Direct-Injection, Turbo-Charged, Intercooled		Direct-Injection, Turbo-Charged		Direct-Injection, Turbo-Charged, Intercooled	
Fuel injection/control method			Mechanical In-line Pump								Common Rail + ECU	
Emission stage			JPN Stage 3						JPN Stage 2		JPN Stage 3	
Rated output		kW [HP]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	51.6 [69.2]	61.0 [81.8]	48.1 [64.5]	57.4 [77.0]	96.3 [129.1]	113.6 [152.3]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	9.5		13.2		15.0		14.0		20.5	
Fuel tank capacity		L	70		110		140		400		250	
Coolant capacity		L	7.0		11.0		13.2		15.0		22.2	
Battery			85D26R×1				95D31R×1		85D26R×1		170F51×1	
WEIGHT DIMENSION												
Length		mm	1,540		1,850		2,080		2,050		2,530	
Width		mm	700		860		1,000		860		1,150	
Hight		mm	1,090		1,350				1,630		1,580	
Dry (Operating) weight		kg	675 (750)		990 (1,100)		1,200 (1,340)		1,290 (1,650)		1,830 (2,080)	
NOISE LEVEL												
Sound power level in decibels		dB	90		88		89				91	
Sound pressure level		dB(A)	59	63	57	60	59	62	59	63	60	63

Notes: 1. Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary.
5. Specifications are subject to change without notice.
※ Model SDG60S-7A6 is an oil fence type and an emergency stop button is optional.

Leak-Guard **SDG-L** series

SDG150L-5B1

SDG220L-5B1

SDG300L-5B1

SDG400L-5B1

Item \ Model			SDG125L -5B1※1		SDG150L -5B1※1		SDG220L -5B1		SDG300L -5B1		SDG400L -5B1	
GENERATOR												
Frequency		Hz	50	60	50	60	50	60	50	60	50	60
Power supply			Dual Voltage									
3 phase 4 wires 400V Class	Prime output	kVA	100	125	125	150	200	220	270	300	350	400
	Standby output		110	137.5	137.5	165	220	242	297	330	385	440
	Voltage	V	400	440	400	440	400	440	400	440	400	440
	Ampere	A	144	164	180	197	289	289	390	394	505	525
3 phase 4 wires 200V Class	Prime output	kVA	100	125	125	150	200	220	270	300	350	400
	Standby output		110	137.5	137.5	165	220	242	297	330	385	440
	Voltage	V	200	220	200	220	200	220	200	220	200	220
	Ampere	A	289	328	361	394	577	577	779	787	1,010	1,050
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0									
ENGINE												
Brand			ISUZU						KOMATSU			
Model			BI-4HK1X		BH-6HK1X		BH-6UZ1X		SAA6D125E-5-B		SAA6D140E-5-C	
Type			Direct-Injection, Turbo-Charged, Intercooled									
Fuel injection/control method			Common Rail + ECU									
Emission stage			JPN Stage 3									
Rated output		kW [HP]	96.3 [129.1]	113.6 [152.3]	119 [159.6]	142 [190.4]	203 [272.2]	230 [308.4]	234 [313.8]	259 [347.3]	310 [415.7]	357 [478.7]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	20.5		38.0		41.0		61.0		84.0	
Fuel tank capacity		L	250				400		490			
Coolant capacity		L	22.2		28.3		47.5		54.0		67.5	
Battery			170F51×1		105D31R×2		170F51×2				225H52×2	
WEIGHT DIMENSION												
Length		mm	2,530		3,100		3,550		4,000		4,500	
Width		mm	1,150		1,180		1,380		1500			
Hight		mm	1,580		1,670		1,770		1,850		2,090	
Dry (Operating) weight		kg	1,880 (2,130)		2,420 (2,690)		3,250 (3,660)		4,510 (5,020)		5,680 (6,220)	
NOISE LEVEL												
Sound power level in decibels		dB	91		94				98		101	
Sound pressure level		dB(A)	60	63	62	65	61	65		69	66	71

Notes: 1. Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary. 5. Specifications are subject to change without notice.

Leak-Guard & Large Fuel Tank **SDG-LX** series

SDG13LX-5B1

SDG45LX-5B2

SDG100LX-5B1

SDG150LX-5B1

Item \ Model			SDG13LX -5B1※2		SDG25LX -5B1		SDG45LX -5B2		SDG60LX -5B1		SDG100LX -5B1※1		SDG125LX -5B1※1		SDG150LX -5B1※1	
GENERATOR																
Frequency		Hz	50	60	50	60	50	60	50	60	50	60	50	60	50	60
Power supply			Three ⇔ Single Phase Alternative Output		Dual Voltage											
3 phase 4 wires 400V Class	Prime output	kVA	–	–	20	25	37	45	50	60	80	100	100	125	125	150
	Standby output		–	–	22	27.5	40.7	49.5	55	66	88	110	110	137.5	137.5	165
	Voltage	V	–	–	400	440	400	440	400	440	400	440	400	440	400	440
	Ampere	A	–	–	28.9	32.8	53.4	59	72.2	78.7	115	131	144	164	180	197
3 phase 4 wires 200V Class	Prime output	kVA	10.5	13	20	25	37	45	50	60	80	100	100	125	125	150
	Standby output		11.5	14.3	22	27.5	40.7	49.5	55	66	88	110	110	137.5	137.5	165
	Voltage	V	200	220	200	220	200	220	200	220	200	220	200	220	200	220
	Ampere	A	30.3	34.1	57.7	65.6	107	118	144	157	231	262	289	328	361	394
Single phase 3 wires	Prime output	kVA	6.1	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	Standby output		6.7	8.2	–	–	–	–	–	–	–	–	–	–	–	–
	Voltage	V	200/100	220/110	–	–	–	–	–	–	–	–	–	–	–	–
	Ampere	A	30.3/30.3x2	34.1/34.1x2	–	–	–	–	–	–	–	–	–	–	–	–
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0													
ENGINE																
Brand			KUBOTA						ISUZU							
Model			D1503-K3A		V2403-K3A		V3600-T-K3A		BJ-4JJ1X		BI-4HK1X				BH-6HK1X	
Type			Swirl chamber				Swirl chamber, Turbo-Charged		Direct-Injection, Turbo-Charged, Intercooled							
Fuel injection/control method			Mechanical In-line Pump								Common Rail + ECU					
Emission stage			JPN Stage 3													
Rated output		kW [HP]	11.5 [15.4]	13.7 [18.4]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	51.6 [69.2]	61.0 [81.8]	96.3 [129.1]	113.6 [152.3]	96.3 [129.1]	113.6 [152.3]	119 [159.6]	142 [190.4]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	6.5		9.5		13.2		15.0		20.5				38.0	
Fuel tank capacity		L	100		180		355		420		750				900	
Coolant capacity		L	6.5		7.0		11.0		13.2		22.2				28.3	
Battery			85D26R×1						95D31R×1		170F51×1				105D31R×2	
WEIGHT DIMENSION																
Length		mm	1,390		1,540		1,850		2,080		2,530				3,100	
Width		mm	650		700		860		1,000		1,150				1,180	
Hight		mm	1,160		1,250		1,560		1,490		1,760				1,850	
Dry (Operating) weight		kg	580 (675)		720 (890)		1,070 (1,390)		1,260 (1,630)		1,970 (2,630)		2,020 (2,680)		2,570 (3,370)	
NOISE LEVEL																
Sound power level in decibels		dB	84		90		89		90		91				95	
Sound pressure level		dB(A)	55	58	59	63	57	60	59	62	60	63	60	63	62	66

※1 A one-touch switching function is provided.
※2 The emergency stop button is optional.

Leak-Guard & 3P4W / 1P3W Multi Output **SDG-LA** series

SDG25LA-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage

SDG45LA-5B2

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage

SDG60LA-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage

SDG100LA-5B1

3P4W & 1P3W 3P/1P Multi output

200 400 Dual Voltage One-touch switching

Item \ Model			SDG25LA -5B1		SDG45LA -5B2		SDG60LA -5B1		SDG100LA -5B1※2	
GENERATOR										
Frequency		Hz	50	60	50	60	50	60	50	60
Power supply			Dual Voltage / Three ⇔ Single Phase Multi Output							
3 phase 4 wires 400V Class	Prime output	kVA	20	25	37	45	50	60	80	100
	Standby output		22	27.5	40.7	49.5	55	66	88	110
	Voltage	V	400	440	400	440	400	440	400	440
	Ampere	A	28.9	32.8	53.4	59	72.2	78.7	115	131
3 phase 4 wires 200V Class	Prime output	kVA	20	25	37	45	50	60	80	100
	Standby output		22	27.5	40.7	49.5	55	66	88	110
	Voltage	V	200	220	200	220	200	220	200	220
	Ampere	A	57.7	65.6	107	118	144	157	231	262
Single phase 3 wires	Prime output※1	kVA	6 (12)	7.5 (15)	11 (22)	13.5 (27)	15 (30)	18 (36)	23.5 (47)	29.0 (58)
	Standby output※1		6.6 (13.2)	8.2 (16.5)	12.1 (24.2)	14.8 (29.7)	16.5 (33)	19.8 (39.6)	25.8 (51.7)	31.9 (63.8)
	Voltage	V	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110
	Ampere※1	A	30/30×2 (60/60×2)	34.1/34.1×2 (68.2/68.2×2)	55/55×2 (110/110×2)	61.4/61.4×2 (123/123×2)	75/75×2 (150/150×2)	81.8/81.8×2 (164/164×2)	117.5/117.5×2 (235/235×2)	132/132×2 (264/264×2)
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0							
ENGINE										
Brand			KUBOTA				ISUZU			
Model			V2403-K3A		V3600-T-K3A		BJ-4JJ1X		BI-4HK1X	
Type			Swirl chamber		Swirl chamber, Turbo-Charged		Direct-Injection, Turbo-Charged, Intercooled			
Fuel injection/control method			Mechanical In-line Pump						Common Rail + ECU	
Emission stage			JPN Stage 3							
Rated output		kW [HP]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	51.6 [69.2]	61.0 [81.8]	96.3 [129.1]	113.6 [152.3]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	9.5		13.2		15.0		20.5	
Fuel tank capacity		L	70		110		140		250	
Coolant capacity		L	7.0		11.0		13.2		22.2	
Battery			85D26R×1				95D31R×1		170F51×1	
WEIGHT DIMENSION										
Length		mm	1,540		1,850		2,080		2,530	
Width		mm	700		860		1,000		1,150	
Hight		mm	1,090		1,350				1,580	
Dry (Operating) weight		kg	695 (770)		1,040 (1,150)		1,250 (1,390)		1,890 (2,140)	
NOISE LEVEL										
Sound power level in decibels		dB	90		88		90		91	
Sound pressure level		dB(A)	59	62	57	60	60	63	60	63

Notes: 1. Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary. 5. Specifications are subject to change without notice.

Leak-Guard & 3P4W / 1P3W Multi Output & Large Fuel Tank **SDG-LAX** series

SDG13LAX-5B1

3P4W & 1P3W 3P/1P Multi output

SDG25LAX-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage

SDG60LAX-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage

SDG150LAX-5B1

3P4W & 1P3W 3P/1P Multi output

200 400 Dual Voltage One-touch switching

Item \ Model			SDG13LAX -5B1※3		SDG25LAX -5B1		SDG45LAX -5B2		SDG60LAX -5B1		SDG100LAX -5B1※2		SDG150LAX -5B1※2	
GENERATOR														
Frequency		Hz	50	60	50	60	50	60	50	60	50	60	50	60
Power supply			Three ⇔ Single Phase Multi Output		Dual Voltage / Three ⇔ Single Phase Multi Output									
3 phase 4 wires 400V Class	Prime output	kVA	–	–	20	25	37	45	50	60	80	100	125	150
	Standby output		–	–	22	27.5	40.7	49.5	55	66	88	110	137.5	165
	Voltage	V	–	–	400	440	400	440	400	440	400	440	400	440
	Ampere	A	–	–	28.9	32.8	53.4	59	72.2	78.7	115	131	180	197
3 phase 4 wires 200V Class	Prime output	kVA	10.5	13	20	25	37	45	50	60	80	100	125	150
	Standby output		11.5	14.3	22	27.5	40.7	49.5	55	66	88	110	137.5	165
	Voltage	V	200	220	200	220	200	220	200	220	200	220	200	220
	Ampere	A	30.3	34.1	57.7	65.6	107	118	144	157	231	262	361	394
Single phase 3 wires	Prime output※1	kVA	6.5	7.5	6 (12)	7.5 (15)	11 (22)	13.5 (27)	15 (30)	18 (36)	23.5 (47)	29.0 (58)	36.0 (72.2)	43.3 (86.7)
	Standby output※1		7.1	8.2	6.6 (13.2)	8.2 (16.5)	12.1 (24.2)	14.8 (29.7)	16.5 (33)	19.8 (39.6)	25.8 (51.7)	31.9 (63.8)	39.4 (79.4)	47.6 (95.3)
	Voltage	V	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110
	Ampere※1	A	32.5/32.5×2	34.1/34.1×2	30/30×2 (60/60×2)	34.1/34.1×2 (68.2/68.2×2)	55/55×2 (110/110×2)	61.4/61.4×2 (123/123×2)	75/75×2 (150/150×2)	81.8/81.8×2 (164/164×2)	117.5/117.5×2 (235/235×2)	132/132×2 (264/264×2)	180/180×2 (361/361×2)	197/197×2 (394/394×2)
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0											
ENGINE														
Brand			KUBOTA						ISUZU					
Model			D1503-K3A		V2403-K3A		V3600-T-K3A		BJ-4JJ1X		BI-4HK1X		BH-6HK1X	
Type			Swirl chamber				Swirl chamber, Turbo-Charged		Direct-Injection, Turbo-Charged, Intercooled					
Fuel injection/control method			Mechanical In-line Pump								Common Rail + ECU			
Emission stage			JPN Stage 3											
Rated output		kW [HP]	11.5 [15.4]	13.7 [18.4]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	51.6 [69.2]	61.0 [81.8]	96.3 [129.1]	113.6 [152.3]	119 [159.6]	142 [190.4]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	6.5		9.5		13.2		15.0		20.5		38.0	
Fuel tank capacity		L	100		180		355		420		750		900	
Coolant capacity		L	6.5		7.0		11.0		13.2		22.2		28.3	
Battery			85D26R×1						95D31R×1		170F51×1		105D31R×2	
WEIGHT DIMENSION														
Length		mm	1,390		1,540		1,850		2,080		2,530		3,100	
Width		mm	650		700		860		1,000		1,150		1,180	
Hight		mm	1,160		1,250		1,560		1,490		1,760		1,850	
Dry (Operating) weight		kg	585 (680)		740 (910)		1,110 (1,430)		1,310 (1,680)		2,030 (2,690)		2,690 (3,490)	
NOISE LEVEL														
Sound power level in decibels		dB	84		89						91		96	
Sound pressure level		dB(A)	55	58	59	62	57	60	60	63	60	63	62	68

※1 Values in parentheses apply to three-phase 200V wiring.
※2 A one-touch switching function is provided.
※3 The emergency stop button is optional.

Ultra-super silent engine generator

New leak-guard model

SDG-ZL SDG-ZLX SDG-ZLA SDG-ZLAX

Z = Ultra super silent, L = Leak-guard, A = 3P4W / 1P3W Multi output, X = Large fuel tank

Conventional model

SDG-AS

AS = Ultra super silent

Engineered to deliver an unparalleled level of acoustic comfort, this model combines a next-generation low-noise engine, a high-capacity muffler, and an advanced exhaust duct system specifically designed to suppress exhaust sound at its source. Its fully sealed panel construction - crafted with meticulous precision - works seamlessly with an aerodynamically optimized air-intake duct to achieve an exceptionally quiet operation that stands at the forefront of the industry.
Furthermore, the innovative muffler support structure dramatically reduces vibration, providing operators with a remarkably smooth, stable, and refined operating experience that elevates productivity and comfort to new heights.

Ultra Super Silent & Leak-Guard & Large Fuel Tank SDG-ZL/ZLX series


SDG25ZL-5B1


SDG25ZLX-5B1


SDG45ZL-5B2


SDG45ZLX-5B2

3P 4W 200 / 3P 4W 400 / 1P 3W 200 100
Three-way Power Supply
One-touch switching

Item \ Model			SDG25ZL -5B1		SDG25ZLX -5B1		SDG45ZL -5B2		SDG45ZLX -5B2	
GENERATOR										
Frequency		Hz	50	60	50	60	50	60	50	60
Power supply			Dual Voltage							
3 phase 4 wires 400V Class	Prime output	kVA	20	25	20	25	37	45	37	45
	Standby output		22	27.5	22	27.5	40.7	49.5	40.7	49.5
	Voltage	V	400	440	400	440	400	440	400	440
	Ampere	A	28.9	32.8	28.9	32.8	53.4	59.0	53.4	59.0
3 phase 4 wires 200V Class	Prime output	kVA	20	25	20	25	37	45	37	45
	Standby output		22	27.5	22	27.5	40.7	49.5	40.7	49.5
	Voltage	V	200	220	200	220	200	220	200	220
	Ampere	A	57.7	65.6	57.7	65.6	107	118	107	118
Single phase 3 wires	Prime output	kVA	11.5	14.4	11.5	14.4	21.4	26.0	21.4	26.0
	Standby output		12.6	15.8	12.6	15.8	23.5	28.6	23.5	28.6
	Voltage	V	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110
	Ampere	A	57.7/57.7×2	65.6/65.6×2	57.7/57.7×2	65.6/65.6×2	107/107×2	118/118×2	107/107×2	118/118×2
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0							
ENGINE										
Brand			KUBOTA							
Model			V2403-K3A				V3600-T-K3A			
Type			Swirl chamber				Swirl chamber, Turbo-Charged			
Fuel injection/control method			Mechanical In-line Pump							
Emission stage			JPN Stage 3							
Rated output		kW[HP]	19.1[25.6]	23.7[31.8]	19.1[25.6]	23.7[31.8]	35.0[46.9]	42.5[57.0]	35.0[46.9]	42.5[57.0]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	9.5				13.2			
Fuel tank capacity		L	80		190		175		355	
Coolant capacity		L	9.0				12.1			
Battery			85D26R×1							
WEIGHT DIMENSION										
Length		mm	1,570				1,920			
Width		mm	800				1,080			
Hight		mm	1,260		1,350		1,490		1,580	
Dry (Operating) weight		kg	800 (880)		830 (1,010)		1,210 (1,380)		1,270 (1,590)	
NOISE LEVEL										
Sound power level in decibels		dB	80				82		83	
Sound pressure level		dB(A)	49	51	49	52	50	53	49	53

Notes: 1.Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary.
5. Specifications are subject to change without notice.

Ultra Super Silent & Leak-Guard & 3P4W / 1P3W Multi Output & Large Fuel Tank **SDG-ZLA/ZLAX** series

SDG25ZLA-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage One-touch switching

SDG25ZLAX-5B1

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage One-touch switching

SDG45ZLA-5B2

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage One-touch switching

SDG45ZLA-5B2X

3P4W & 1P3W 3P/1P Multi output

200 ↔ 400 Dual Voltage One-touch switching

Item \ Model			SDG25ZLA -5B1		SDG25ZLAX -5B1		SDG45ZLA -5B2		SDG45ZLAX -5B2	
GENERATOR										
Frequency		Hz	50	60	50	60	50	60	50	60
Power supply			Dual Voltage / Three ⇔ Single Phase Multi Output							
3 phase 4 wires 400V Class	Prime output	kVA	20	25	20	25	37	45	37	45
	Standby output	kVA	22	27.5	22	27.5	40.7	49.5	40.7	49.5
	Voltage	V	400	440	400	440	400	440	400	440
	Ampere	A	28.9	32.8	28.9	32.8	53.4	59	53.4	59
3 phase 4 wires 200V Class	Prime output	kVA	20	25	20	25	37	45	37	45
	Standby output	kVA	22	27.5	22	27.5	40.7	49.5	40.7	49.5
	Voltage	V	200	220	200	220	200	220	200	220
	Ampere	A	57.7	65.6	57.7	65.6	107	118	107	118
Single phase 3 wires	Prime output※1	kVA	6 (12)	7.5 (15)	6 (12)	7.5 (15)	11 (22)	13.5 (27)	11 (22)	13.5 (27)
	Standby output※1	kVA	6.6 (13.2)	8.2 (16.5)	6.6 (13.2)	8.2 (16.5)	12.1 (24.2)	14.8 (29.7)	12.1 (24.2)	14.8 (29.7)
	Voltage	V	200/100	220/110	200/100	220/110	200/100	220/110	200/100	220/110
	Ampere※1	A	30/30×2 (60/60×2)	34.1/34.1×2 (68.2/68.2×2)	30/30×2 (60/60×2)	34.1/34.1×2 (68.2/68.2×2)	55/55×2 (110/110×2)	61.4/61.4×2 (123/123×2)	55/55×2 (110/110×2)	61.4/61.4×2 (123/123×2)
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0							
ENGINE										
Brand			KUBOTA							
Model			V2403-K3A				V3600-T-K3A			
Type			Swirl chamber				Swirl chamber, Turbo-Charged			
Fuel injection/control method			Mechanical In-line Pump							
Emission stage			JPN Stage 3							
Rated output		kW[HP]	19.1[25.6]	23.7[31.8]	19.1[25.6]	23.7[31.8]	35.0[46.9]	42.5[57.0]	35.0[46.9]	42.5[57.0]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	9.5				13.2			
Fuel tank capacity		L	80		190		175		355	
Coolant capacity		L	9.0				12.1			
Battery			85D26R×1							
WEIGHT DIMENSION										
Length		mm	1,570				1,920			
Width		mm	800				1,080			
Hight		mm	1,260		1,350		1,490		1,580	
Dry (Operating) weight		kg	820 (900)		850 (1,030)		1,250 (1,420)		1,310 (1,630)	
NOISE LEVEL										
Sound power level in decibels		dB	80				83			
Sound pressure level		dB(A)	49	51	49	52	50	53	49	53

Notes: 1.Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary. 5. Specifications are subject to change without notice.

Ultra Super Silent **SDG-AS** series

SDG60AS-3B1

200 ↔ 400 Dual Voltage

SDG60AS-7A6

200 ↔ 400 Dual Voltage

SDG60AS-3A6

200 ↔ 400 Dual Voltage

SDG100AS-3A6

200 ↔ 400 Dual Voltage

Item \ Model			SDG60AS -3B1※2		SDG60AS -7B1※2		SDG60AS -7A6※2		SDG60AS -3A6※2		SDG100AS -3A6※2	
GENERATOR												
Frequency		Hz	50	60	50	60	50	60	50	60	50	60
Power supply			Dual Voltage									
3 phase 4 wires 400V Class	Prime output	kVA	50	60	50	60	50	60	50	60	80	100
	Standby output	kVA	55	66	55	66	55	66	55	66	88	110
	Voltage	V	400	440	400	440	400	440	400	440	400	440
	Ampere	A	72.2	78.7	72.2	78.7	72.2	78.7	72.2	78.7	115	131
3 phase 4 wires 200V Class	Prime output	kVA	50	60	50	60	50	60	50	60	80	100
	Standby output	kVA	55	66	55	66	55	66	55	66	88	110
	Voltage	V	200	220	200	220	200	220	200	220	200	220
	Ampere	A	144	157	144	157	144	157	144	157	231	262
Power factor			3-phase 0.8 (lagging) / Single-phase 1.0									
ENGINE												
Brand			ISUZU									
Model			BJ-4JJ1X				BB-4BG1T				DD-6BG1T	
Type			Direct-Injection, Turbo-Charged, Intercooled				Direct-Injection, Turbo-Charged					
Fuel injection/control method			Mechanical In-line Pump									
Emission stage			JPN Stage 3				JPN Stage 2					
Rated output		kW [HP]	51.6 [69.2]	61.0 [81.8]	51.6 [69.2]	61.0 [81.8]	48.1 [64.5]	57.4 [77.0]	48.1 [64.5]	57.4 [77.0]	73.6 [98.7]	91.2 [122.3]
Rated rotation speed		rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity		L	15.0				14.0				18.0	
Fuel tank capacity		L	170		400		400		170		225	
Coolant capacity		L	11.5				15.0				24.0	
Battery			95D31R×1				85D26R×1				95D31R×2	
WEIGHT DIMENSION												
Length		mm	2,080						2,090		2,700	
Width		mm	1,080				1,000		950		1,140	
Hight		mm	1,300		1,640				1,300		1,500	
Dry (Operating) weight		kg	1,240 (1,400)		1,370 (1,730)		1,370 (1,725)		1,280 (1,440)		1,870 (2,100)	
NOISE LEVEL												
Sound power level in decibels		dB	86		85		83				87	
Sound pressure level		dB(A)	55	57	54	56	54	56	55	56	54	57

※1 Values in parentheses apply to three-phase 200V wiring.
※2 The emergency stop button is optional.

New Power Generation Solution !!

Normally — **Required generator capacity would be 2-3 times the rated motor load**

But Now — **Generator capacity ≒ Rated motor load**

This model is perfect for submersible pumps!!

V-Pump 15 INVERTER

V-Pump 30 INVERTER

V-Pump 37 INVERTER

Diesel engine generator
with built-in inverter system

V - Pump 30

V = Variable (Inverter control)
Pump = Submersible pump
30 = Submersible pump total output

Benefits and features

Allows for up to 3 times the maximum starting load by reducing starting current.

Submersible pump	3 inch 3.7kW	4 inch 7.5kW	6 inch 11kW	8 inch 15kW	6 inch×2 22kW	6 inch×2+4 inch 29.5kW	6 inch×2+8 inch 37kW
Standard	SDG13S	SDG25S	SDG45S	SDG60S	SDG100S	SDG125S	SDG150S
V-Pump		V-Pump15 →					
			V-Pump30 →				
				V-Pump37 →			

Generator capacity of a standard models is calculated under the following conditions: - Input start-up characteristic (β) 7.2, coefficient of starting method (C) 1.0 (DOL), generator constant (Xd') 0.2, voltage drop rate (ΔV) 30%.

The submersible pump discharge volume (speed) of can be controlled by adjusting the frequency of the inverter with the knob on the control panel.
Fuel economy can be improved by controlling the power consumption of the submersible pump.

- Not effective for inverter type machine.
- Cannot be using for single-phase motors. In the case of a single-phase motor, the inverter control circuit determines that the motor is missing a phase (protection circuit) and output will be stopped.
- If the load has a start switch (self-holding), motor and generator must be direct connected using wire.

Switchable between inverter output mode and standard output mode

The two outputs of "inverter" and "three-phase" can be easily switched through the cam switch.

※The inverter output is effective only when direct and simultaneous starting. It's not effective when star-delta starting and sequential starting.

Large Fuel Tank & Leak Guard & Built-in Inverter V-Pump series

V-Pump15

V-Pump30

V-Pump37

3P 4W 200 / 1P 3W 200 100 / Inverter — One-touch switching

Item	Model	V-Pump15 (SDG25LXV-5B1)				V-Pump30 (SDG45LXV-5B2)				V-Pump37 (SDG60LXV-5B1)			
		200V Type		400V Type		200V Type		400V Type		200V Type		400V Type	
GENERATOR													
Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60
Power supply		Single Voltage / Inverter Output											
3 phase 4 wires — Prime output	kVA	20	25	20	25	37	45	37	45	50	60	50	60
3 phase 4 wires — Standby output	kVA	22	27.5	22	27.5	40.7	49.5	40.7	49.5	55	66	55	66
3 phase 4 wires — Voltage	V	200	220	400	440	200	220	400	440	200	220	400	440
3 phase 4 wires — Ampere	A	57.7	65.6	28.9	32.8	107	118	53.4	59	144	157	72.2	78.7
Single phase 3 wires — Prime output	kVA	11.5	14.4	—	—	21.4	26	—	—	30	36	—	—
Single phase 3 wires — Standby output	kVA	12.6	15.8	—	—	23.5	28.6	—	—	33	39.6	—	—
Single phase 3 wires — Voltage	V	200/100	220/110	—	—	200/100	220/110	—	—	200/100	220/110	—	—
Single phase 3 wires — Ampere	A	57.7/57.7×2	65.6/65.6×2	—	—	107/107×2	118/118×2	—	—	150/150×2	164/164×2	—	—
Power factor		3-phase 0.8 (lagging) / Single-phase 1.0		3-phase 0.8 (lagging)		3-phase 0.8 (lagging) / Single-phase 1.0		3-phase 0.8 (lagging)		3-phase 0.8 (lagging) / Single-phase 1.0		3-phase 0.8 (lagging)	
ENGINE													
Brand		KUBOTA								ISUZU			
Model		V2403-K3A				V3600-T-K3A				BJ-4JJ1X			
Type		Swirl chamber				Swirl chamber, Turbo-Charged				Direct-Injection, Turbo-Charged, Intercooled			
Fuel injection/control method		Mechanical In-line Pump											
Emission stage		JPN Stage 3											
Rated output	kW [HP]	19.1 [25.6]	23.7 [31.8]	19.1 [25.6]	23.7 [31.8]	35.0 [46.9]	42.5 [57.0]	35.0 [46.9]	42.5 [57.0]	51.6 [69.2]	61.0 [81.8]	51.6 [69.2]	61.0 [81.8]
Rated rotation speed	rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800
Engine oil capacity	L	9.5				13.2				15.0			
Fuel tank capacity	L	180				355				420			
Coolant capacity	L	7.0				11.0				13.2			
Battery		85D26R×1								95D31R×1			
WEIGHT DIMENSION													
Length	mm	1,540				1,850				2,080			
Width	mm	700				860				1,000			
Hight	mm	1,250				1,560				1,490			
Dry (Operating) weight	kg	740 (910)				1,120 (1,440)				1,340 (1,710)		1,290 (1,660)	
NOISE LEVEL													
Sound power level in decibels	dB	90				89				88			
Sound pressure level	dB(A)	60	63	60	63	57	60	57	60	60	63	60	63

Notes: 1. Sound power level is measured at 60Hz, no load and rated speed of revolution, and Sound pressure level is measured at 7m in 4 directions average. 2. Above figures are applied under operation in standard atmosphere conditions as per JIS D0006. 3. "Standby Output" rating is applied only under intermittent or emergency operation for approximately 1 hour. 4. In accordance with the IMDG Code, batteries may not be included with the machine, or the battery model may vary.
5. Specifications are subject to change without notice.

A reliable backup power source during utility outages is achieved by combining an engine generator with an Automatic Transfer Switch (ATS) panel.

During a blackout, the ATS automatically transfers the electrical circuit from the commercial power supply to the generator.
When utility power is restored, the circuit is automatically switched back from the generator to the commercial power source.

Three attempts starting operation

If the engine failed to start up after 10 seconds cranking, additional two more attempts to start will be included to ensure the engine to be started up. "Difficulty in starting" indication lamp will turn on after engine failed to start three attempts.

Trial (Test) operation availability

Test operation is available for maintenance and inspection as standard function.

Built-in battery charger

ATS panel incorporates a battery charger to keep charging the battery of a standby generator.

Fault Indication lamp

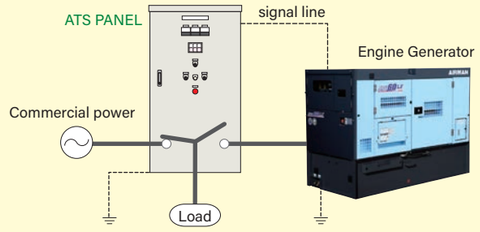
Generator fault indication lamp is equipped on the ATS panel. This is a consolidated indication for out of fuel, fuel filter clogging, low engine oil pressure, high coolant temperature, overcurrent and earth leakage.

ATS panel

＊ATS panel in photo is ground standing type for outdoor use.
(upon customer' request before production process this is available.)

Easy Installation

Simply connect the load, commercial power supply, generator, signal lines to the generator, and grounding to the ATS (Automatic Transfer Switch) panel.



When the system detects a commercial power outage while the generator is in standby mode, it performs preheating and then starts the generator engine. Once the commercial power supply is restored, the system transfers the load from the generator to the commercial power source after a 30-second delay.

Features and Benefits

1. **Simplified construction incorporating all required functions**
2. **Light-weight and compact**
3. **Easy connection between ATS panel and generator**

Examples of Backup Power Supply

- Poultry farms and swinery
- Gas-stations
- Housing, villa residence, office and factories
- Communication station, broadcasting station, lighting facilities and traffic signal stations
- On-line system of bank, credit union, Agricultural cooperative associations
- Battery for portable telephones base
- Facilities for draining water for underground engineering construction

●Specifications of ATS panel <Floor standing type / Outdoors>

Model	ATS25-10	ATS60-10	ATS100-10	ATS150-10/50	ATS220-50	ATS300-50	ATS400-50	ATS500-50
Applicable Models	SDG13/25	SDG45/60	SDG100	SDG100/125/150	SDG220	SDG300	SDG400	SDG500/610/800
Rated voltage (V)	AC 200/220 (ATS60-10 only: AC 200/220・400/440 [AC 200/220])							
Phase	3P3W[3P3W・1P3W]		[3P3W・1P3W]	3P3W				
Control voltage (V)	DC 12			DC 12/DC 24*1	DC 24			
L×W×H (mm)	1350×600×330 [1400×500×330]	1450×600×332 [1400×750×330]	[1450×800×330]	1600×650×330	1700×800×530	1700×800×580	1700×750×680	
Mass (kg)	90[110]	110	[120]	135	260	290	300	

Note: [ ]: Automatic Transfer Switch (ATS) panel for able generator power supply　＊1 Applicable to stage 2 exhaust gas regulation models and SDG 150.

Selection of Optimum Generators

Example of AC arc welder

- AC arc welder is in general single phase load. So when a three phase generator is used for single phase load, it shall be equally connected to three phase.
- Three times more generating power is required for single load welding.

Generators are capable of operating following numbers of arc welders.

Model	SDG25		SDG45		SDG60		SDG100		SDG125		SDG150		SDG220		SDG300		SDG400		SDG500		SDG610		SDG800	
Frequency (Hz)	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60
180A	1	1	3	3	3	5	7	8	10	12	13	14	18	20										
200A		1	2	2	3	4	6	6	8	9	10	11	15	16										
250A			2	2	3	3	5	6	7	8	9	10	14	15										
300A				1	2	2	3	3	5	6	6	7	10	11	14	17	19	21	24	27	30	33	35	39
400A						1	2	3	3	3	5	5	6	7	9	12	13	14	16	19	21	24	25	27
500A								2	3	3	3	3	5	6	7	10	11	12	13	15	17	18	20	23

Note: Numbers of welders in the above table are for such ones without condensers equipped for reference purpose only. When using generators for extremely low efficientwelders, reduce the numbers of welders. When using generators for AC arc welders equipped with condenser, it is necessary to be very careful for self-exciting phenomena (Output voltage of generator extremely increases in case of no load or light load).
The above table shows the numbers of welders when operating 40%. In case of more Percentage than 40%, reduce the numbers of welders. When using generators for more welders than 2 units , connect evenly it to each welder, not concentrating one unit only.

Example of electric motors
(three-phase squirrel-cage motor)

Engine generators are used for large and small various type electric motors. In general capacity of electric motor is specified in kW or PS.
This shows motor output capacity, not motor input capacity or not required to operate motor (machine). The relation between motor output and input is shown in the following formula.

1 PS = 0.7355 kW
Efficiency = 90% (three phase induction motor)
Power factor = 0.8 (three phase induction motor)

$$\frac{\text{Output (kW)}}{\text{Efficiency}} = \frac{0.7355 \times \text{Output (PS)}}{\text{Efficiency}} = \text{Input (kW)}$$

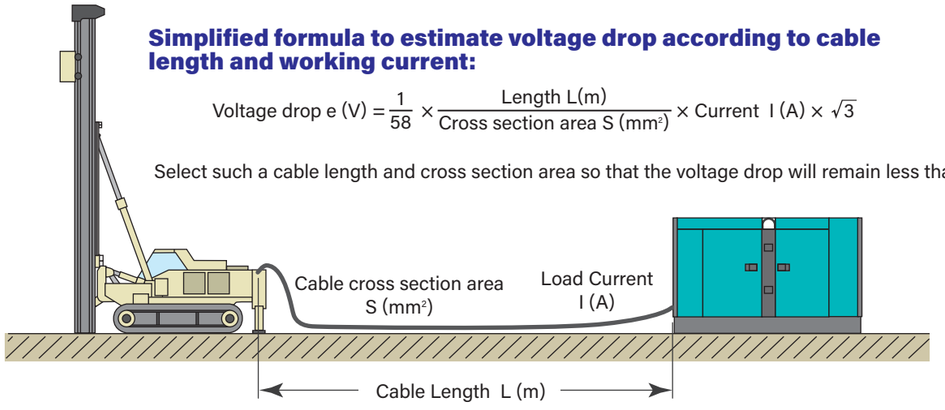
$$\frac{\text{Input (kW)}}{\text{Power factor}} = \text{Input (kVA)}$$

Motor starting capacity

Model		SDG13		SDG25		SDG45		SDG60		SDG100		SDG125		SDG150	
Frequency (Hz)		50	60	50	60	50	60	50	60	50	60	50	60	50	60
Generator (kVA)		10.5	13	20	25	37	45	50	60	80	100	100	125	125	150
Motor capacity	Direct start Simultaneously (kW)	3.4	3.9	5.6	6.5	10.3	12.0	14.6	16.3	22.4	27.5	30.1	37.0	37.0	43.9
	Direct start By turns (kW)	6.5	7.7	13.0	16.2	24.0	29.2	32.4	39.0	51.9	64.9	64.9	81.2	81.2	97.2
	Y-Δstart (open)(kW)	5.2	5.8	8.4	9.7	15.5	18.1	19.4	24.5	33.5	41.3	45.2	55.5	55.5	65.8
	Y-Δstart (closed)(kW)	6.5	7.7	13.0	16.2	24.0	30.1	32.4	39.0	51.9	64.9	64.9	81.1	81.1	97.2

Model		SDG220		SDG300		SDG400		SDG500		SDG610		SDG800	
Frequency (Hz)		50	60	50	60	50	60	50	60	50	60	50	60
Generator (kVA)		200	220	270	300	350	400	450	500	555	610	700	800
Motor capacity	Direct start Simultaneously (kW)	58	65	78	88	112	125	138	156	155	163	219	250
	Direct start By turns (kW)	126	143	162	194	228	260	292	324	357	390	454	518
	Y-Δstart (open)(kW)	88	98	118	132	168	187	206	234	232	245	326	372
	Y-Δstart (closed)(kW)	126	143	162	194	227	260	292	324	357	390	454	518

＊The motor capacities in the above table are only for reference purpose. The generator capacities vary upon instantaneous voltage drop, motor start class, efficiency, old and new type machine.
- The instantaneous voltage drop when motor starts shall be within 30% of no load voltage.
- Motor starting kVA shall be 7 kVA per one (1) kW.
- Motor efficiency shall be 85% and load 90%.
- When operating many motor loads (starting by turns one by one) and total capacity of the loads within the values in the above table, it can operate as many loads as expected. But the total capacity of the motors which are operated first shall be within the capacity at direct start instantaneous start.
- The engine load of the engine complete with turbo-charger sometimes may be influenced by engine net average efficient pressure.



Simplified formula to estimate voltage drop according to cable length and working current:

$$\text{Voltage drop e (V)} = \frac{1}{58} \times \frac{\text{Length L(m)}}{\text{Cross section area S (mm}^2\text{)}} \times \text{Current I (A)} \times \sqrt{3}$$

Select such a cable length and cross section area so that the voltage drop will remain less than 5%.

List of current values at a glance

Unit: ampere (A)

Model		SDG13	SDG25	SDG45	SDG60	SDG100	SDG125	SDG150	SDG220	SDG300	SDG400	SDG500	SDG610	SDG800
50Hz	200V	30.3	57.7	107	144	231	289	361	577	779	1,010	1,299	1,602	2,021
	380V	16.0	30.4	56.2	76.0	122	152	190	296	410	532	684	843	1,063
	400V	15.2	28.9	53.4	72.2	115	144	180	289	390	505	650	801	1,010
60Hz	220V	34.1	65.6	118	157	262	328	394	577	787	1,050	1,312	1,600	2,100
	440V	17.1	32.8	59.0	78.7	131	164	197	289	394	525	656	800	1,050

List of neutral point (N(O) terminal) allowable power

Model	SDG13		SDG25		SDG45		SDG60		SDG100		SDG125		SDG150	
Frequency(Hz)	50	60	50	60	50	60	50	60	50	60	50	60	50	60
● 200/220V														
Voltage(V)	115	127	115	127	115	127	115	127	115	127	115	127	115	127
Allowable ampere 3 phase average (A) *1	24.2	27.3	46.2	52.5	85.6	94.4	115	126	185	210	231	262	289	315
Output ratio	80*2													
Allowable ampere Single phase average (A)	30.3	34.1	57.7	65.6	107	118	144	157	231	262	289	328	361	394
Output ratio	100*2													
● 400(380)/440V														
Voltage(V)	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254
Allowable ampere 3 phase average (A) *1	12.2 (12.8)	13.7	23.1 (24.3)	26.2	42.7 (45.0)	47.2	57.8 (60.8)	63.0	92.0 (96.8)	105	115 (122)	131	144 (151)	158
Output ratio	80*2													
Allowable ampere Single phase average (A)	15.2 (16.0)	17.1	28.9 (30.4)	32.8	53.4 (56.2)	59.0	72.2 (76.0)	78.7	115 (121)	131	144 (152)	164	180 (189)	197
Output ratio	100*2													

Model	SDG220		SDG300		SDG400		SDG500		SDG610		SDG800	
Frequency(Hz)	50	60	50	60	50	60	50	60	50	60	50	60
● 200/220V												
Voltage(V)	115	127	115	127	115	127	115	127	115	127	115	127
Allowable ampere 3 phase average (A) *1	462	462	390	394	505	525	650	656	801	800	1,010	1,050
Output ratio	80*2		50*3									
Allowable ampere Single phase average (A)	577	577	390	394	505	525	650	656	801	800	1,010	1,050
Output ratio	100*2		50*3									
● 400(380)/440V												
Voltage(V)	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254	231 (219)	254
Allowable ampere 3 phase average (A) *1	231 (243)	231	312 (328)	315	404 (426)	420	520 (547)	525	641 (674)	640	808 (851)	840
Output ratio	80*2											
Allowable ampere Single phase average (A)	289 (304)	289	390 (410)	394	505 (532)	525	650 (684)	656	801 (843)	800	1,010 (1,064)	1,050
Output ratio	100*2											

*1 When you use single phase with N(O) terminal at the same time for each phase from Model SDG13S/25S/AS to SDG150S/AS,the unbalance of current value for each phase should be kept within 50%.When the current values exceed the limit, please note that the output voltages for each phase may be unbalanced.
*2 Output ratio shows an allowable output figure of the rated current. (Rated output 100% = it is allowable to use the rated current value until 100%.)
*3 Output ratio shows an allowable output figure of the rated current. (Rated output 50% = it is allowable to use the rated current value until 50%.)
*4 Output ratio shows an allowable output figure of the rated current. (Rated output 80% = it is allowable to use the rated current value until 80%.)

Leakage protection device and grounding method

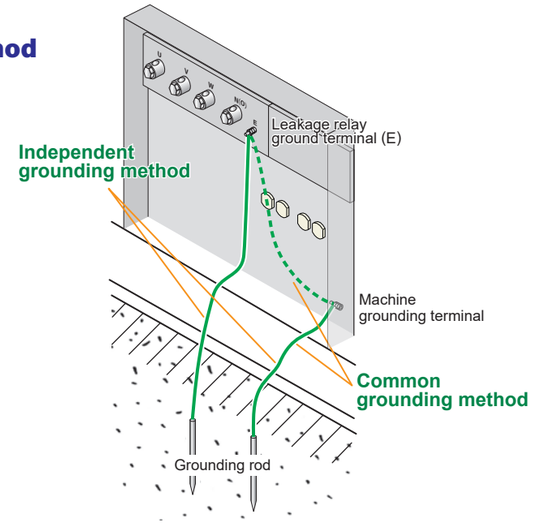
Leakage protection device

This machine is equipped with a leakage relay which detects leakage caused by a defective insulation of working load to prevent an accident such as an electric shock by shutting down the circuit. However, for additional safety, install ground fault circuit interrupter (GFCI) for each load equipment close to the load equipment. The sensitivity current of the leakage relay is 30mA.

Grounding method

<Procedure>
Connect a lead wire fitted with a ground rod to the leakage relay grounding terminal (E) of the three-phase output terminal board.

1. Connect the generator machine ground terminal of the package to ground.
2. Be sure to ground the package of the load equipment as well.
3. These grounding must be carried out in accordance with local regulations.



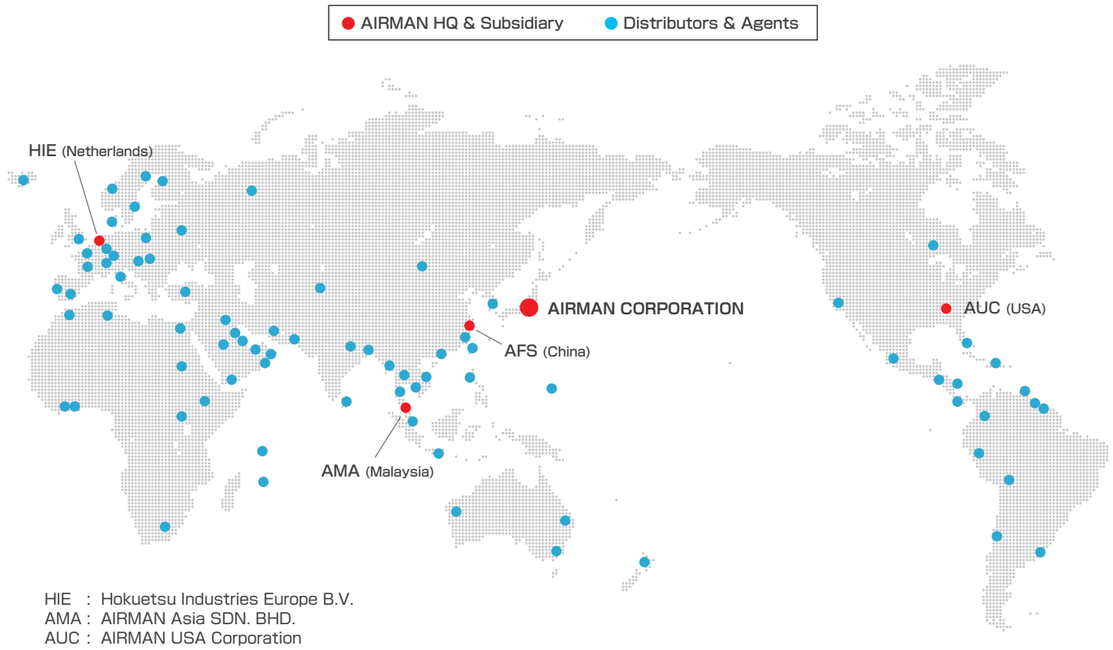
List of Optional Equipment

- **Remote start system** Allows remote starting and automatically starts in the event of a utility power outage, providing immediate emergency power.
- **Manual paralleling system** Enables parallel operation of multiple generator sets to increase output capacity.
- **Automatic paralleling system** Automatically controls parallel operation for stable power supply.
- **Automatic fuel refill system** Supports long-hour continuous operation with automatic fuel replenishment.
- **External fuel supply with three-way valve** Allows easy switching between internal and external fuel tanks.
- **Automatic engine oil refill system** Reduces maintenance workload and supports continuous operation.
- **Muffler exhaust outlet with flange** Allows easy connection to an exhaust duct system.
- **Anti-salt corrosion specification** Enhances durability in coastal and high-humidity environments.
- **Anti-theft cover** Helps prevent theft and unauthorized access.
- **Lockable fuel filler cap** Prevents fuel theft and unauthorized refueling.
- **Engine oil pressure gauge** Allows easy monitoring of engine operating condition.

※ *Standard equipment, optional availability, or non-availability may vary depending on the model series. Please contact your distributor for details.*

AIRMAN's Global Service Network

Our global sales and service network ensures reliable support wherever you are.



HIE : Hokuetsu Industries Europe B.V.
AMA : AIRMAN Asia SDN. BHD.
AUC : AIRMAN USA Corporation
AFS : AIRMAN-Fusheng (Shanghai) Electromechanical Co., Ltd.

⚠ SAFETY

- Operate safely in accordance with operation manual.
- To prevent trouble and accidents, perform daily and preventive maintenance checks without fail.