

Korea's first NEP certification of generator Environment-friendly generator with ultra high efficiency



The leading company in green growth

## SUNTECH



WORLD TOP-RANK
IN HIGH EFFICIENCY OF GENERATOR
SUNTECH

### **CEO** Message

#### Greeting!

I'm Sun Hyoo Lee, a CEO of SUNTECH Co., Ltd. which keeps the continuous development under your encouragement. We, SUNTECH, have dedicated in manufacturing, researching, and developing rotary equipment for more than 20 years. In order to supply clean and neat electricity to consumers and to reduce energy consumption in the high oil price age, we have researched the development of an environment-friendly releasing it to the market, we expect it will continuously increase our sales turnover in worldwide markets as well as in domestic market. In addition, we believe it will become a new leader in next generation of generator along with the increase of export.

We promise to keep our efforts for developing new technologies without discontinuity. We hope your continued cooperation and encouragement in future and further, wish your prosperous success.

### **Company History**

2018	Registered electric work
2017	Obtained Performance Certificate[Permanent magnet double exciter control generator]
2016	Direct production Certification [Korea Federation]
2015	Listed on the KONEX
2014	Selected as Pre-World Class company
2013	Award Presidential prize in Application of New Technology
2012	Approved the extension of validating date for NEP Certification [NEP-MOCIE-2007-023]
2011	Awarded government & industrial prizes in Application of New Technology in 2011
2010	First deliver 10kW to Korea Defense Acquisition Program Administration
2009	Approved the extension of validating date for NEP Certification [NEP-MKE-2008-049)
2008	Won the gold prize at 2008 Geneva international invention
2007	Obtained NEP Certification [NEP MOCIE-2007-023]
2006	Founded a laboratory affiliated with company
2005	Got INNO-BIZ approval
2004	Selected as a promising export company
2003	Obtained ISO9001 & 14001 ]
2002	Obtained CE Certification [AM500167310001
1998	Incorporated as SUNTECH Co., Ltd.
1996	Establish Sun-tech generator



### Patents • Certificate • Award

**PATENTS** 













ISO 9001:2008

ISO 14001:2004



CE



NEP-MOTIE-2017-021

AWARD 신제품인증서

The first prize for new technology in Geneva, Switzerland

DIPLÔME



The first prize for new technology in Nurenberg, Germany



The first prize for new technology in Pittburgh, USA



The Environment Prize in Pittburgh, USA

## Acquisiton of Intellectual Property Rights

	Domestic Rotator of generator and motor(no.:0597191) Rotator for generator or motor(no.:0667049) Rotator for generator equipping extra coil(no.:0702631)
DATENIT	Generator equipping power factor correction(no.:0742715) / generator(no.:0758385) Synchronous generator enabling self-diagnosis and the control of field current(no.:0901865)
PATENT	Overseas Rotator of motor or generator(no::7834505)
	Rotator of motor or generator(no.:7876014)
	Rotator of motor or generator(no.:4839260)
	Rotator of motor and generator(no.:866385)
	Rotator of motor or generator(no.:7850456)
DESIGN	Bracket for field control unit of generator(no.0482611) / Rotator core for motor(no.:0440728) Rotator core for motor(no.:0453571) / Stator for generator(no.:0464651)
JTILITY MODEL	Stator of generator and motor(no.:4020759)

### **Generator Type**





#### Standard type Diesel Generator Set

- · Control Panel: Mounted / Separated
- · Fuel tank base: All in one / Separated
- · Built in over-voltage, over-current and low-voltage relays
- · Protects startup failure at autostart
- · Built-in and protect oil pressure, cooling water temperature, oil temperature gauge
- · Built in engine control switch (automatic, manual, stop, etc.)
- · Remote monitoring and control based on RS-485 / RS-232 communication
- Indication of number of generator start and operation time
- · Indication of battery voltage and current



#### **Enclosure[Bonnet type]**

- · Option : Color, soundproof (noise reduction)
- · Available for move( (tow), can be combined with mobile trailer
- $\cdot$  Compared to the house type, it occupies the smallest area in a compact size.
- <Place of use>
- $\cdot$  In case there are many complaints about noise in densely residential areas
- In case the generator is moved often and used (Construction sites, etc.)
- · In case there is a narrow space for placing a separate generator room outside the building or building without the generator room.



#### **Enclosure[House type]**

- · Option : Color
- · Easy maintenance of generator and engine by proper ensuring check section
- · Proper air supply and exhaust is secured according to generator capacity.
- <Place of use>
- Building and road section without generator room (tunnel, sales office, etc)
- In case a generator is installed outside the existing and new building



## DOOSAN

		MG(X)	SAS-60	SAS-90	SAS-130	SAS-175	SAS-200	SAS-250	SAS-275	SAS-300					
	SET MODEL P	MG(O)	SGA-60	SGA-90	SGA-130	SGA-175	SGA-200	SGA-250	SGA-275	SGA-300					
<u>₽</u>	Stand-by Power (60/50)	kw	60/50	90/75	130/104	175/148	200/178	250/227	275/249	300/266					
GENETATOR		kva	75/63	112/94	162/130	218/185	250/223	312/284	343/311	375/333					
Ž	Prime Power (60/50)	kw	55/45	82/64	118/94	159/134	182/158	227/201	250/211	273/241					
있		kva	69/56	103/85	148/118	199/168	228/198	284/251	312/263	341/301					
	Frequency	Hz				60	/50								
	RPM	RPM				1,800(60Hz)/1,500(50Hz)									
	Pole, Phase, Wire					4Pole 3Ph	nase 4Wire								
	Insulation Class					F,H C	CLASS								
	Power Factor	PF		0.8  Brushless Self Exciting or P.M.G(Permanent Magnet Generator : SGA MODEL)											
	Exciting System														
	Bearing			Single Ball Bearing											
	Voltage	V			220/	127, 380/220,	440/254, 3300,	6600							
E	Manufacturer				DC	OSAN HEAVY	INDUSTRIES L	.TD.							
ENGINE	Model		DB58	D1146	D1146T	DE12T	P086TI	P126TI-3	P126TI	P126TI-II					
m	Stand-by Power(60/50)	HP	94/79	141/114	197/158	267/223	299/267	370/338	399/365	458/394					
	Prime Power(60/50)	HP	86/72	129/103	168/143	241/202	275/237	338/299	373/323	416/394					
	RPM	RPM				1,800(60Hz)	/1,500(50Hz)								
	No. of Cylinder	EA	6	6	6	6	6	6	6	6					
	Bore x Stroke	mm	102X118	111X139	111X139	123X155	111X139	123X155	123X155	123X155					
	Displacement	сс	5785	8071	8071	11051	8071	11051	11051	11051					
	Compression Ratio		17.5:1	17.5:1	16.8:1	17.1:1	16.4:1	17.0:1	17.0:1	17.0:1					
	Engine Type		Fo	our stroke dies	el internal cor	nbustion engi	ne(Radiator &	Heat Exchang	er Cooling Typ	oe)					
	Aspiration		Natural /	Aspiration	Turboo	charged		Turbocharged	d & Aircooled						
	Starting System				Startir	ng Electric Mo	tor by Battery	24volt							
	Governor		Mechanical Centrifugal Type Electronic Type												
	Coolant Capacity (ENGINE	)	12	14	14	19	14	19	19	19					
	Coolant Capacity (SET)	L	34	38.5	38.5	52	48.5	60	60	60					
	Lub.Oil Capacity	L	19	15.5	15.5	23	15.5	23	23	23					
$\Box$	Fuel Consumption	L/Hr	18.1/15.3	26.6/20.8	35.9/27	49/41	56.8/48.4	68.2/59.6	76.5/66.2	89.5/77.6					
DIM	Length	mm	2250	2400	2400	2600	2650	2994	2994	2994					
>	Width	mm	850	850	850	920	946	1110	1110	1110					
	Height	mm	1280	1350	1350	1510	1510	1540	1540	1540					
$\rightarrow$	Weight	kg	1158	1487	1722	1957	1913	2226	2256	2366					
PAD	Length	mm	3000	3000	3000	3200	3200	3500	3500	3500					
	Width	mm	1200	1200	1200	1500	1500	1500	1500	1500					
_	Height	mm	300	300	300	300	300	300	300	300					
D.A	Radiator Air Flow	m'/min	170	250	250	336	384	480	480	528					
	Combustion Air Flow	m'/min	4	6.9	11.5	15	16.8	23	23	25					
	E.A (OUT - LET)	m'	0.4	0.5	0.5	0.7	0.8	1	1	1.1					
	O.A (IN-LET)	m'	0.4	0.6	0.6	0.8	1	1.2	1.2	1.3					

 $<sup>\</sup>ensuremath{\mathbb{X}}$  The above specifications can be changed in accordance with on-site conditions.



		MG(X) MG(O)		SAS-360 SGA-360	SAS-400 SGA-400	SAS-450 SGA-450	SAS-500 SGA-500		SAS-610 SGA-610		SAS-715 SGA-715	
E GE	Stand-by Power (60/50)	kw	330/290	360/329	400/378	450/400	500/456	550/500	610/560	660	715/600	750/660
GENETATOR		kva	412/362	450/411	500/472	562/500	625/570	687/625	762/700	825	894/750	937/825
ΤĀ	Prime Power (60/50)	kw	300/260	327/297	364/332	409/364	455/407	500/455	555/509	600	650/545	682/600
S S		kva	375/325	409/371	455/415	511/455	569/508	625/636	694/636	750	813/681	853/750
	Frequency	Hz					60,	/50				
	RPM	RPM				1	,800(60Hz),	/1,500(50Hz	<u>z</u> )			
	Pole, Phase, Wire						4Pole 3Ph	ase 4Wire				
	Insulation Class						F,H C	LASS				
	Power Factor	PF					0	.8				
	Exciting System		Brushless Self Exciting or P.M.G(Permanent Magnet Generator : SGA MODEL)									
	Bearing						Single Ba	ll Bearing				
	Voltage	V				220/127	7, 380/220, 4	140/254, 330	00,6600			
罗	Manufacturer					D009	SAN HEAVY	INDUSTRIE	S LTD.			
ENGINE	Model		P158LE-2	P158LE-1	P158LE	DP158LC	DP158LD	DP180LA	DP180LB	DP222LA	DP222LB	DP222LC
而	Stand-by Power(60/50)	HP	503/430	539/485	614/555	688/602	745/684	824/740	886/765	988	1048/890	1110/969
	Prime Power(60/50)	HP	464/393	491/438	539/487	625/547	677/622	749/673	805/695	898	953/809	1009/881
	RPM	RPM				1	,800(60Hz),	/1,500(50Hz	<u>z</u> )			
	No. of Cylinder	EA	8	8	8	8	8	10	10	12	12	12
	Bore x Stroke	mm	128X142	128X142	128X142	128X142	128X142	128X142	128X142	128X142	128X142	128X142
	Displacement	СС	14618	14618	14618	14618	14618	18273	18273	21927	21927	21927
	Compression Ratio		15.0:1	15.0:1	15.0:1	15.0:1	15.0:1	15.0:1	15.0:1	15.0:1	15.0:1	15.0:1
	Engine Type			Four stroke	e diesel inte	rnal combu	ıstion engir	ne (Radiatoi	& Heat Exc	changer Co	oling Type)	
	Aspiration					Τι	ırbocharge	d & Aircoole	ed			
	Starting System					Starting	Electric Mo	tor by Batte	ry 24volt			
	Governor						Electror	nic Type				
	Coolant Capacity (ENGINE	L	19	19	19	20	20	21	21	23	23	23
	Coolant Capacity (SET)	L	88.5	88.5	88.5	79	79	91	91	114	114	114
	Lub.Oil Capacity	L	28	28	28	19	22	34	34	40	40	40
	Fuel Consumption	L/Hr	93.5/84.4	104/93.6	115.7/102.9	123.8/110.9	139.6/127.8	154.1/135.4	165.3/149.5	179.9	192.8/162.7	203.8/172.8
DIN	Length	mm	2990	2990	2990	2990	2990	3200	3200	3390	3390	3390
>	Width	mm	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
	Height	mm	1800	1800	1800	1800	1800	1860	1860	2130	2130	2130
	Weight	kg	2595	2655	2690	2770	2810	3312	3340	3705	3880	3910
PAD	Length	mm	3500	3500	3500	3700	3700	3700	3700	4000	4000	4000
	Width	mm	1700	1700	1700	1700	1700	1700	1700	1800	1800	1800
	Height	mm	300	300	300	300	300	300	300	300	300	300
D.A	Radiator Air Flow	m³/min	768	768	816	850	928	928	928	1123	1123	1123
	Combustion Air Flow	m³/min	31.1	31.1	31.1	34.5	36.6	43.1	45.5	53.5	56	57.6
	E.A (OUT - LET)	m'	1.4	1.4	1.5	1.6	1.7	1.7	1.7	2.1	2.1	2.1
	O.A (IN-LET)	m'	1.7	1.7	1.8	1.8	2	2	2	2.5	2.5	2.5

 $<sup>\</sup>ensuremath{\,\%\,}$  The above specifications can be changed in accordance with on-site conditions.



## CUMMINS

	SET MODEL		SAS(SGA) -C800	SAS(SGA) -C900	SAS(SGA) -C1000	SAS(SGA) -C1250	SAS(SGA) -C1500	SAS(SGA) -C1750	SAS(SGA) -C2000	SAS(SGA) -C2250	SAS(SGA) -C2500	SAS(SGA) -C2750			
Œ	Stand-by Power (60/50)	kw	800/700	900/800	1000/875	1250/1120	1500	1750	2000	2250	2500	2750			
GENETATOR		kva	1000/875	1125/1000	1250/1094	1560/1400	1875	2187	2500	2812	3125	3438			
Ξl	Prime Power (60/50)	kw	727/650	818/720	909/790	1136/1000	1364	1590	1818	-	2273	2500			
유		kva	909/875	1022/900	1136/987	1420/1250	1705	1989	2272	-	2841	3125			
	Frequency	Hz					60,	/50	'		'				
	RPM	RPM					1800(60Hz).	/1500(50Hz	<u>:</u> )						
	Pole, Phase, Wire						4Pole 3Ph	ase 4Wire							
	Insulation Class						F,H C	CLASS							
	Power Factor	PF					0	.8							
	Exciting System			Brushless Self Exciting or P.M.G(Permanent Magnet Generator : SGA MODEL)											
	Bearing			Single Ball Bearing or Double Ball Bearing											
Voltage V 220/127,380/220,440/254,3300,6600															
图	Manufacturer		CUMMINS												
ENGINE	Model		QSK23-G7	KTA38-G3 QST30-G3	KTA38-G4 QST30-G4	KTA50-G3	KTA50-G9	QSK60-G6	QSK60-G6	QSK60-G9	QSK78-G6	QSK78-G8			
	Stand-by Power(60/50)	HP	1200/1030	1350/1200	1490/1300	1850/1645	2220	2922	2922	3251	3778	4060			
	Prime Power(60/50)	HP	1085/940	1220/1080	1350/1180	1742/1541	1855	2647	2647	-	3371	3670			
	RPM	RPM					1800(60Hz).	/1500(50Hz	:)						
	No. of Cylinder	EA	6	12	12	16	16	16	16	16	18	18			
	Bore x Stroke	mm	170X170	140X165	159X159	159X159	159X159	159X190	159X190	159X190	170X190	170X190			
	Displacement	СС	23150	30480	37800	50300	50300	60200	60200	60200	77600	77600			
	Compression Ratio		16.0:1	14.0:1	13.9:1	13.9:1	13.9:1	14.5:1	14.5:1	14.5:1	15.3:1	15.5:1			
	Engine Type			Four stroke	e diesel inte	rnal combu	ustion engi	ne (Radiato	r & Heat Exc	changer Co	oling Type)				
	Aspiration		Turbocharged			Τι	ırbocharge	d Aftercool	ed						
	Starting System					Starting	Electric Mo	tor by Batte	ery 24volt						
	Governor						Electro	nic Type							
	Coolant Capacity (ENGINE)	L	46.5	85	91	161	174	193	193	193	224	224			
	Coolant Capacity (SET)	L	89	84	220	345	310	430	430	492	450	738			
	Lub.Oil Capacity	L	102	133	154	204	204	261	261	176	413	413			
	Fuel Consumption	L/Hr	212/178	228/204	271/227	330/293	392	466	521	569	663	704			
DIN	Length	mm	4266	4297	4200	5105	5690	6175	6175	6175	6965	7138			
3	Width	mm	1879	1685	1880	2000	2033	2286	2286	2494	2750	2750			
	Height	mm	2052	2079	2500	2238	2330	2537	2537	3116	3360	3387			
	Weight	kg	6528	6296	7374	10075	10326	15366	15366	17217	21408	23777			
PAD	Length	mm	5000	5000	5200	6000	6700	6700	6700	7000	8000	8200			
	Width	mm	2400	2400	2400	2500	2500	3000	3000	3000	3200	3200			
	Height	mm	300	300	400	400	400	500	500	500	500	600			
D.A	Radiator Air Flow	m³/min	1416	1146	1290	1626	1362	1998	1998	1998	3002	3060			
123	Combustion Air Flow	m¹/min	68	76.3	80.5	110.5	124.7	175	175	183	224	270			
	E.A (OUT - LET)	m'	3	2.4	2.7	3.4	2.8	4.2	4.2	4.2	6.3	6.4			
	O.A (IN-LET)	m'	3.5	2.9	3.3	4.1	3.5	5.2	5.2	5.2	7.7	8.9			

 $<sup>\</sup>ensuremath{\mathbb{X}}$  The above specifications can be changed in accordance with on-site conditions.





# CATERPILLAR

	SET MODEL		SCA -800	SCA -1000	SCA -1100	SCA -1250	SCA -1400	SCA -1500	SCA -1750	SCA -2000	SCA -2250	SCA -2500	SCA -3000	SCA -4000
EF CF	Stand-by Power (60/50)	kw	800	1000	1100	1250	1400	1500	1750	2000	2250	2500	3000	4000
GENETATOR		kva	1000	1250	1375	1562	1750	1875	2187	2500	2813	3125	3750	5000
ΞI	Prime Power (60/50)	kw	727	909	1000	1136	1273	1364	1591	1818	2045	2273	2727	3636
S		kva	909	1136	1250	1420	1591	1705	1989	2273	2557	2840	3409	4545
	Frequency	Hz						6	0					
	RPM	RPM						1800(	60Hz)					
	Pole, Phase, Wire						4	4Pole 3Ph	ase 4Wire	j				
	Insulation Class							F,H C	LASS					
	Power Factor	PF						0	.8					
	Exciting System						P.M.G - Pe	rmanent	Magnet (	Generator	,			
Bearing Single Ball Bearing or Double Ball Bearing														
	Voltage	٧		220/127,380/220,440/254,3300,6600										
图	Manufacturer			CATERPILLAR										
ENGINE	Model		3412	C32	3512	3512	3512B	3512B	3516	3516B	3516B	3516C	C175-16	C175-20
m	Stand-by Power(60/50)	HP	1180	1502	1603	1818	2032	2172	2520	2876	3286	3634	4423	5647
	Prime Power(60/50)	HP	1071	1341	1455	1662	1844	1971	2304	2628	2876	3308	4034	5136
	RPM	RPM						1800(	60Hz)					
	No. of Cylinder	EA	12	12	12	12	12	12	16	16	16	16	16	20
	Bore x Stroke	mm	137X152	145X162	170X190	170X215	175X220	175X220						
	Displacement	СС	27000	32100	51800	51800	51800	51800	69000	69000	69000	78080	84670	105800
	Compression Ratio		13.0:1	15.0:1	13.5:1	13.5:1	14.0:1	14.0:1	13.5:1	14.0:1	14.0:1	14.7:1	15.3:1	15.5:1
	Engine Type			Four st	roke diese	el internal	combust	tion engir	ne (Radiat	or & Heat	Exchang	er Coolin	ig Type)	
	Aspiration		Turboc	harged		Т	urbochar	ged & Aft	ercooled			Turboch -arged	Turboch Aftero	arged & ooled
	Starting System					S	tarting Ele	ectric Mo	tor by Bat	tery 24vo	lt			
	Governor	L						Electror	nic Type					
	Coolant Capacity (ENGINE)	L	59	55	157	157	157	157	233	233	233	233	303.5	440
	Coolant Capacity (SET)	L	149	-	287	287	322	322	398	421	405	504	-	-
	Lub.Oil Capacity	L/Hr	68	99	310	310	310	306	401	401	401	466	540	675
	Fuel Consumption	mm	221.8	262.7	305.4	354	376.6	404.2	470	513.8	593.9	656.8	806	1039
DIN	Length	mm	4485	4475	5138	5138	5241	5241	5815	6276	6527	6983	7802	6719
$\leq$	Width	mm	1742	2011	1975	1975	2286	2286	2286	2588	2588	2570	2890	2377
	Height	kg	1987	2174	2368	2368	2342	2342	2368	3051	3051	3010	3410	2556
	Weight	mm	7200	10000	12000	13000	14500	14500	15500	17000	17500	19000	23000	23500
PAD	Length	mm	5000	5000	6000	6000	6000	6000	6700	7000	7200	7700	8500	9000
	Width	mm	2200	2500	2500	2500	2700	2700	2700	3000	3000	3000	3200	3500
	Height	m³/min	400	500	500	500	500	500	500	500	500	500	500	600
D.A	Radiator Air Flow	m³/min	1464	1126	1331	1614	1430	1543	1671	2011	2549	2800	2933	-
A	Combustion Air Flow	m'	69.6	82.6	92.3	106	124	128	156	171	186	198	264	338.3
	E.A (OUT - LET)	m³	3.1	2.3	2.8	3.4	3	3.2	3.5	4.2	4.7	5.8	6.1	-
	O.A (IN-LET)		3.7	2.9	3.4	4.1	3.7	4	4.4	5.2	6.5	7.1	7.6	-

 $<sup>\</sup>ensuremath{\mathbb{X}}$  The above specifications can be changed in accordance with on-site conditions.



## **MITSUBISHI**

	SET MODEL		SAS(SGA) -MI600	SAS(SGA) -MI800	SAS(SGA) -MI880	SAS(SGA) -MI1000	SAS(SGA) -MI1200		SAS(SGA) -MI1500	SAS(SGA) -MI1600	SAS(SGA) -MI1750	SAS(SGA -MI2000		
	Stand-by Power (60/50)	kw	600/520	800/690	880/770	1000/900	1200/1118	1320/1200	1500/1400	1600/1495	1750/1590	2000/1750		
		kva	750/650	1000/862	1100/962.5	1250/1125	1500/13975	1650/1500	1875/1750	2000/1869	2187/1987	2500/2187		
	Prime Power (60/50)	kw	545/470	727/620	800/697	909/820	1091/1015	1200/1095	1364/1250	1455/1365	1591/1490	1818/1600		
3		kva	682/588	909/775	1000/871	1136/1025	1364/1269	1500/1369	1705/1562	1818/1706	1989/1862	2273/2000		
	Frequency	Hz					60,	/50						
	RPM	RPM					1800(60Hz),	/1500(50Hz	)					
	Pole, Phase, Wire						4Pole 3Ph	ase 4Wire						
	Insulation Class						F,H C	LASS						
	Power Factor	PF		0.8										
	Exciting System			Brus	hless Self E	xciting or P.	M.G(Perma	nent Magne	et Generato	or : SGA MO	DEL)			
	Bearing						Single Ba	ll Bearing						
	Voltage	V	220/127,380/220,440/254,3300,6600											
!	Manufacturer					MIT	SUBISHI / w	ith FAN for	PTA					
	Model		S6R-PTA	S12A2-PTA	S12A2-PTA2	S12H-PTA	S12R-PTA	S12R-PTA2	S12R-PTAA2	S16R-PTA	S16R-PTA2	S16R-PTAA		
	Stand-by Power(60/50)	HP	851/744	1146/970	1233/1096	1448/1314	1702/1595	1903/1723	2139/1882	2279/2131	2547/2359	2822/2540		
	Prime Power(60/50)	HP	771/670	980/880	1118/994	1314/1193	1528/1448	1729/1562	1940/1711	2064/1944	2312/2145	2540/2258		
	RPM	RPM					1800(60Hz),	/1500(50Hz	)					
	No. of Cylinder	EA	6	12	12	12	12	12	16	16	16	16		
	Bore x Stroke	mm	170X180	150X160	150X160	150X175	170X180	170X180	170X180	170X180	170X180	170X180		
	Displacement	сс	24510	33930	33930	37110	49030	49030	65370	65370	65370	65370		
	Compression Ratio		14.0:1	14.5:1	15.3:1	14.0:1	14.0:1	13.5:1	13.5:1	14.0:1	13.5:1	14.0:1		
	Engine Type			Four stroke	e diesel inte	rnal combu	ustion engir	ne (Radiato	& Heat Exc	hanger Co	oling Type)			
	Aspiration		Four stroke diesel internal combustion engine (Radiator & Heat Exchanger Cooling Type)  Turbocharged with Aftercooler Turbocharged with air-to-air with Aftercooler with air-to-air											
	Starting System		Starting Electric Motor by Battery 24volt											
	Governor						Electror	nic Type						
	Coolant Capacity (ENGINE)	L	50	100	100	100	125	125	125	170	170	170		
	Coolant Capacity (SET)	L	120	215	235	285	305	305	327	350	445	413		
	Lub.Oil Capacity	L	100	120	120	200	180	180	180	230	230	230		
	Fuel Consumption	L/Hr	172.2	222/182	256.9	265/238	305	358/287	404	408/363	479/438	521/403		
	Length	mm	3500	3800	3900	4175	4600	4600	4600	5200	5430	5600		
	Width	mm	1600	1600	1650	1650	1840	1840	2200	1840	2700	2400		
	Height	mm	1990	1990	1990	2350	2780	2780	2980	2730	2900	3330		
	Weight	kg	5000	6400	7000	8200	10400	11000	11750	11800	13200	13800		
;	Length	mm	4200	4500	4500	5000	5200	5200	5200	6000	6000	6500		
1	Width	mm	2000	2000	2000	2200	2400	2400	3000	2400	3000	3000		
	Height	mm	400	400	500	500	500	500	500	500	400	400		
1	Radiator Air Flow	m³/min	720	1100	1380	1800	1800	1800	1850	1950	2040	2500		
1	Combustion Air Flow	m³/min	54	78	85	93	109	121	148	141	160	182		
	E.A (OUT - LET)	m³	1.3	2	2.6	3.3	3.3	3.3	3.4	3.6	3.8	4.6		
	O.A (IN-LET)	m³	1.6	2.5	3.1	3.9	4	4.1	4.2	4.3	4.6	5.6		

 $<sup>\</sup>ensuremath{\mathbb{X}}$  The above specifications can be changed in accordance with on-site conditions.







			a. a/a.a.)	212/221\			a. a/a a. \	a. a/a.a.\			a. a/a a. \	a. a/a.a.\\		
	SET MODEL		SAS(SGA) -M900	SAS(SGA) -M1000	SAS(SGA) -M1200	SAS(SGA) -M1600	SAS(SGA) -M1750	SAS(SGA) -M2100	SAS(SGA) -M2300	SAS(SGA) -M2500	SAS(SGA) -M2750	SAS(SGA) -M3250		
9	Stand-by Power (60/50)	kw	900/800	1000/870	1200/980	1600/1450	1750/1600	2100/1800	2300/2000	2500/2250	2750/2500	3250/2650		
GENETATOR	J. 1. 1. 1. (00,00)	kva	1125/1000	1250/1088	1500/1225							4063/3313		
ΕŢΑ	Prime Power (60/50)	kw	818/727	909/800	1090/890							2955/2420		
0		kva	1023/909	1136/1000								3693/3025		
الد	Frequency	Hz	1023/303	1130/1000	1303/1113	1010/1030		/50	201 1/22/3	2011/2330	3123/2/73	3033/3023		
	RPM	RPM					1800(60Hz).		·)					
	Pole, Phase, Wire													
	Insulation Class	F,H CLASS												
	Power Factor	PF												
	Exciting System	''		0.8  Brushless Self Exciting or P.M.G(Permanent Magnet Generator : SGA MODEL)										
	Bearing			Single Ball Bearing or Double Ball Bearing										
Voltage V 220/127,380/220,440/254,3300,6600														
т	Manufacturer	, v				220/12		<del>14</del> 0/234,330 TU	,0,000					
ENGINE	Model		10,0000	16/2000	10\ /2000	121/4000			161/4000	201/4000	201/4000	201/4000		
릚	Model		16V2000 G45/25	16V2000 G85/65	18V2000 G85/65	12V4000 G43/23	12V4000 G83/63	16V4000 G43/23	16V4000 G83/63	20V4000 G43/23	20V4000 G83/63	20V4000 G83/63L		
	Stand-by Power(60/50)	HP		1495/1307	1757/1475		2561/2347		3353/2930			4680/3822		
	Prime Power(60/50)	HP		1354/1194	1597/1341		2328/2112				3674/3245			
	RPM	RPM	122//1000	1334/1194	1397/1341	I.	1800(60Hz).		I.	3339/2930	3074/3243	4030/34/3		
	No. of Cylinder	EA	16	16	18	12	12	16	16	20	20	20		
	Bore x Stroke	mm	130X150	130X150	130X150	170X210	170X210	170X210	170X210	170X210	170X210	170X210		
	Displacement	cc	31800	31800	35800	57200	57200	76300	76300	95400	95400	95400		
	Compression Ratio		14.0:1	14.0:1	14.0:1	16.5:1	16.5:1	16.5:1	16.5:1	16.5:1	16.5:1	16.5:1		
	Engine Type		17.0.1				ustion engi							
	Aspiration			1001 3000	c dieser inte		ocharged v			chariger co	omig type,			
	Starting System						Electric Mo							
	Governor					Juling		nic Type	17 2 17010					
	Coolant Capacity (ENGINE)	L	212	212	209	436	436	635	635	735	735	1010		
	Coolant Capacity (SET)	L	102	102	130	260	260	300	300	390	390	390		
	Fuel Consumption	L/Hr	240/207	265/227	314/260	404/349	459/402	537/436	609/484	619/538	701/598	878/643		
	Length	mm	4230	4230	4600	6400	6400	7300	7300	7900	7900	9100		
DIM	Width	mm	1900	1900	2130	2150	2150	2377	2377	2370	2370	2370		
	Height	mm	2300	2300	2400	2450	2450	3280	3280	3280	3280	3280		
	Weight	kg	6890	6990	8060	11300	11300	15183	15433	16182	16182	20673		
P	Length	mm	5000	5000	5500	6500	7000	8000	8000	8500	8500	10000		
PAD	Width	mm	2500	2500	2500	2700	2700	2700	2700	3000	3000	3000		
	Height	mm	300	400	400	400	400	400	400	400	400	400		
D.A	Radiator Air Flow	m³/min	1476	1476	1716	1598	1850	2141	2522	2591	3643	4079		
Þ	Combustion Air Flow	m'/min	84	87	108	138	144	186	192	228	246	270		
	E.A (OUT - LET)	m,	3.1	3.1	3.6	3.3	3.9	4.5	5.3	5.4	6.7	7.6		
	O.A (IN-LET)	m,	3.7	3.7	4.4	4.1	4.7	5.5	6.5	6.2	8.1	9.1		
	/		J.,/	5./	1!		1.7	J.J	5.5	J.2	J. 0.1			

 $<sup>\</sup>ensuremath{\mbox{\%}}$  The above specifications can be changed in accordance with on-site conditions.



## **PERKINS**

	SET MODEL		SAS(SGA) -P780	SAS(SGA) -P875	SAS(SGA) -P1100	SAS(SGA) -P1200	SAS(SGA) -P1280	SAS(SGA) -P1330	SAS(SGA) -P1500				
GE	Stand-by Power (60/50)	kw	780	875	1100	1200	1280	1330	1500				
GENETATOR		kva	975	1094	1375	1500	1600	1663	1875				
A	Prime Power (60/50)	kw	709	796	1001	1091	1164	1209	1364				
9R		kva	886	995	1251	1364	1455	1511	1705				
	Frequency	Hz				60							
	RPM	RPM											
	Pole, Phase, Wire		4Pole 3Phase 4Wire										
	Insulation Class					F,H CLASS							
	Power Factor	PF				0.8							
	Exciting System			Brushless Sel	f Exciting or P.M.(	G(Permanent Ma	gnet Generator	:SGA MODEL)					
Bearing Single Ball Bearing													
	Voltage	V			220/127,3	80/220,440/254	,3300,6600						
罗	Manufacturer					PERKINS							
ENGINE	Model		4008TAG1	4008TAG2	4012-46TWG2A	4012-46TWG3A	4012-46TWG4A	4012-46TAG2A	4012-46TAG3A				
m	Stand-by Power(60/50)	HP	1176	1314	1631	1761	1871	1956	2202				
	Prime Power(60/50)	HP	1072	1198	1483	1609	1753	1784	2011				
	RPM	RPM				1800 RPM							
	No. of Cylinder	EA	8	8	12	12	12	12	12				
	Bore x Stroke	mm	160X190	160X190	160X190	160X190	160X190	160X190	160X190				
	Displacement	сс	30,561	30,561	45,842	45,842	45,842	45,842	45,842				
	Compression Ratio		13.6:1	13.6:1	13.6:1	13.6:1	13.1:1	13.6:1	13.6:1				
	Engine Type		Fou	r stroke diesel ir	nternal combusti	on engine (Radi	ator & Heat Exch	anger Cooling T	ype)				
	Aspiration		Turbocharge	ed, ATAAC	Tui	rbocharged, ATV	VAC	Turbocharç	ged, ATAAC				
	Starting System				Electric	Motor by batter	y 24volt						
	Governor					Electronic Type							
	Coolant Capacity (ENGINE)	L	-	-	-	-	-	-	-				
	Coolant Capacity (SET)	L	162.0	162.0	201.0	201.0	201.0	210.0	209.0				
	Lub.Oil Capacity	L	165.6	165.6	177.0	177.0	177.0	177.0	177.0				
	Fuel Consumption	L/Hr	212.0	216.0	298.0	325.0	355.0	251.0	300.0				
DIN	Length	mm	4500	4500	4500	4700	4700	4900	5000				
$\leq$	Width	mm	1790	1790	1790	1790	1990	1790	2200				
	Height	mm	2354	2354	2354	2425	2382	2390	2459				
	Weight	kg	6600	6700	8340	8940	9030	9670	10290				
PAD	Length	mm	5200	5200	5200	5500	5500	5700	6000				
O	Width	mm	2200	2200	2200	2200	2500	2500	2700				
	Height	mm	300	300	400	400	400	400	500				
D.A	Radiator Air Flow	m³/min	1215	1228	1328	1375	1535	1684	1784				
	Combustion Air Flow	m¹/min	70	75	114	116	122	133	145				
	E.A (OUT - LET)	m'	2.5	2.6	2.8	2.9	3.2	3.5	3.7				
	O.A (IN-LET)	m'	3.1	3.1	3.4	3.6	3.9	4.3	4.6				

 $<sup>\</sup>ensuremath{\mathbb{X}}$  The above specifications can be changed in accordance with on-site conditions.



# MAN



	SET MODEL		SAS(SGA) -MAN360	SAS(SGA) -MAN375	SAS(SGA) -MAN455	SAS(SGA) -MAN480	SAS(SGA) -MAN525	SAS(SGA) -MAN595	SAS(SGA) -MAN650	SAS(SGA) -MAN730	SAS(SGA) -MAN1000			
<u></u>	Stand-by Power (60/50)	kw	360/330	375/405	455/410	480/450	525/500	595/555	650/580	730/640	1000/800			
GENETATOR	Staria by Fower (00/30)	kva	450/410	570/510	470/510	600/560	656/630	744/700	813/730	913/810	1250/1000			
ETA	Prime Power (60/50)	kw	327/255	414/300	341/330	436/365	477/410	541/450	591/495	664/540	909/630			
O		kva	409/310	517/400	426/410	545/450	597/520	676/570	739/630	830/680	1136/800			
20	   Voltage	V	103/3/10	3177 100			)/220,440/25			030,000	1130,000			
	Frequency	Hz				, , , , , , , , , , , , , , , , , , , ,	60/50	, ,						
	Revolution	RPM					1800/1500							
	Phase/Wire			1¢ 2W, 1¢ 3W, 3¢ 3W, 3¢ 4W										
	Power Factor	%				· · · · · · · · · · · · · · · · · · ·	80 (Lagging)							
	Excitation			Brushless Self Exciting or P.M.G(Permanent Magnet Generator : SGA MODEL)										
Bearing Single or Double Ball Bearing														
	Insulation Class						F or H							
丏	Manufacturer						MAN							
ENGINE	Model		D2866	D2876	D2676	D2848	D2840	D2840	D2842	D2842	D2862			
E			LE201/3	LE201/3	LE221/3	LE211/3	LE201/3	LE211/3	LE201/3	LE211/3	LE221/3			
	Stand-by Power(60/50)	HP	545/490	690/615	565/600	730/670	795/740	900/830	975/860	1085/955	1520/1195			
	Prime Power(60/50)	HP	435/380	550/455	510/490	625/550	700/610	765/670	840/735	945/800	1090/950			
	Revolution	RPM					1800/1500							
	No. of Cylinder		L-6	L-6	L-6	V-8	V-10	V-10	V-12	V-12	V-12			
	Bore X Stroke	mm	128X155	128X166	126X166	128X142	128X142	128X142	128X142	128X142	128X157			
	Displacement	L	11.96	12.82	12.42	14.62	18.27	18.27	21.92	21.92	24.24			
	Compression Ratio		15.5:1	15.5:1	15.5:1	15.5:1	15.5:1	15.5:1	15.5:1	15.5:1	17.0:1			
	Engine Type					4 Cy	cle Water-co	oled						
	Aspiration					Turbocha	arged with A	ftercooler						
	Starting System				S	tarting Elect	ric Motor by	Battery, 24vo	lt					
	Governor					E	lectronic Typ	е						
	Fuel Consumption	L/Hr	82/74	109/97	85/89	122/113	124/116	139/129	151/134	169/148	219/173			
	Coolant Capacity	L	48.5	48.3	61.8	85	86	86	98	98	102			
	Lub. Oil Capacity	L	40	40	40	18	30	30	32	32	102			
DIM	Length	mm												
_	Width	mm												
	Height	mm												
	Weight	kg												
D.A	Radiator Air Flow	m,	550	396	333.5	800	783	775	850	767	983.3			
	Combustion Air Flow	m'	27.8	31	31	40	43	51	48.3	57	61			
	E.A (OUT-LET)	m',												
	O.A (IN-LET)	m'												

 $<sup>\</sup>ensuremath{\,\times\,}$  The above specifications can be changed in accordance with on-site conditions.

## SUNTECH's Standard Flue Duct and Vibration Isolation Spring Standards (It can vary by each engine company)

Model(kW)	Generator f	ue duct / Size	Vibration isolation	n spring standards	Starting battery standards
3,000kW	20"	500A	2000kg	16 EA	"24V 1200AH(12V 200AH 6EA)"
2,500kW	20"	500A	2000kg	14 EA	24V 1200AN(12V 200AN 6EA)
2,250kW	16"	400A	2000kg	12 EA	
2,000kW	16"	400A	2000kg	12 EA	
1,750kW	16"	400A	2000kg	12 EA	
1,500kW	14"	350A	2000kg	10 EA	"24V 800AH(12V 200AH 4EA)"
1,250kW	12"	300A	1500kg	10 EA	
1,000kW	10"	250A	1000kg	10 EA	
900kW	10"	250A	1000kg	10 EA	
750kW	8"	200A	750kg	10 EA	
650kW	8"	200A	750kg	10 EA	
500kW	6"	150A	500kg	10 EA	"24V 400AH(12V 200AH 2EA)"
400kW	6"	150A	500kg	10 EA	
300kW	5"	125A	500kg	6 EA	
200kW	4"	100A	500kg	6 EA	"24V 300AH(12V 150AH 2EA)"
100kW	3"	75A	500kg	6 EA	ZAV SUUAN(IZV ISUAN ZEA)

### Application Guideline

	Ratings are in accordance with (ISO8528, ISO3046/1, AS2789, DIN6271 & BS5514)									
Standby-Power	Restricted short period of time during power outages and load fluctuations can withstand a wide range of output. With in 200 hours driving time per year is limited.									
Prime-Power	Prime power output is used instead of the Prime-power supply, and the power is applied under 70% of the normal. It allows overloading about for 1 hour per every 12 hours. (When more than 750 hours per year is needed to drive, the continuous power must be applied.)									
Continuous	Continuous output has no limit of driving time and is applied to use continuously under(Base Load) 100% of load. This output ratings do not apply any overolad capacity, but are applied to drive of the base power.									

