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# About GnCenergy

## 회사소개

### 에너지의 미래를 이끄는 종합 발전 솔루션 기업, (주)지엔씨에너지

1989년 창립 이래, (주)지엔씨에너지는 디젤 및 가스 엔진 발전기, 열병합발전 시스템, 신재생에너지 발전설비 (LFG, 바이오가스, 태양광 등) 등 전 에너지 분야를 아우르는 종합 발전 시스템 기업으로 성장해 왔습니다.

ISO9001 및 ISO14001, 45001, 50001, 37001인증을 기반으로 엄격한 품질관리와 친환경 경영체계를 구축하고 있으며, 비상발전기 및 상업용 발전설비에 이르기까지 설계부터 제작, 시공, 유지보수까지 토클 솔루션을 제공합니다.

특히, 최근에는 스마트그리드, 분산형 전원 시스템, 원격 모니터링 기반의 발전기 운영관리 플랫폼을 포함한 지능형 에너지 관리 시스템을 도입하여 기술 고도화를 이끌고 있습니다.

당사 기술연구소는 국내 최초로 국산 가스터빈을 활용한 바이오가스 발전 실증사업 및 매립가스를 활용한 친환경 발전기술 개발 등에 주도적으로 참여하며, 국산화 및 에너지 자립화에 기여하고 있습니다.

(주)지엔씨에너지는 고객과의 신뢰를 바탕으로 끊임없이 기술을 혁신하고, 에너지 산업의 지속 가능한 미래를 설계하는 파트너로서, 앞으로도 한 차원 높은 에너지 가치를 제공하겠습니다.

### GNC ENERGY Co., Ltd. — Leading the Future of Power Solutions

Since its establishment in March 1989, GNC ENERGY has grown into a comprehensive power solutions provider, specializing in diesel and gas engine generators, combined heat and power (CHP) systems, and renewable energy generation facilities including LFG, biogas, and solar power systems.

Certified under ISO 9001 and ISO 14001, 45001, 50001, 37001 we deliver total solutions encompassing design, manufacturing, installation, and maintenance of emergency and commercial power systems, built upon stringent quality standards and eco-friendly management practices.

In recent years, we have expanded our capabilities into intelligent energy management systems, incorporating smart grids, distributed power generation, and remote monitoring platforms to enhance operational efficiency and reliability. Our R&D Center plays a leading role in national initiatives such as the development and demonstration of domestic gas turbines powered by biogas, and landfill gas generation systems. We are at the forefront of localizing energy technologies and enhancing energy self-sufficiency.

GNC ENERGY is committed to continuous innovation, trusted partnerships, and the creation of sustainable energy solutions. We will continue to deliver higher energy value as a reliable partner shaping the future of the power industry. to work with customers to contribute for the best of humanity.





# Company History

## 회사연혁

### 1989 ~ 2000

- 1989 · 한국기술서비스 창립(1989년 3월8일)
- 1993 · 법인 전환 (주)한국기술서비스 창립  
· 조달청 외자입찰 등록, 삼성중공업(주) 협력업체 등록
- 1994 · 동아건설(주), 벽산건설(주), 삼성건설(주), 한라건설(주), (주)한진, 한진해운(주) 협력업체 등록  
· 국내 최초 POWER PACK 제작 납품 – 한진해운(주), (주)한진 KOHLER(G.M USA)와 국내 삼성건설(주), 한솔, 한라건설(주), 벽산건설(주)와 공급계약
- 1997 · 국제협력단 등록  
· 조달청 내자 / 외자입찰 등록
- 1998 · 현대엔진 / 발전기 수출 (대만 Jemmytex international Corp.사와 대리점 계약 / 월 50대 수출계약)  
· Wanson 'Thermal Oil Heater' 대리점 계약
- 1999 · ISO9001 인증획득, 한국전력공사 입찰참가 등록  
· 중소기업은행 유망중소기업, Family 기업 지정  
· 한국전기공업협동조합 수출표창패

### 2001 ~ 2010

- 2002 · ISO14001 인증획득
- 2004 · 열병합 발전설비 시공  
· 기업부설 연구소 설립
- 2006 · 한국기계연구원(KIMM), 신재생 에너지 기술사업 실증분야 주관참여기업  
· 자랑스런 중소기업상 수상
- 2006 · 해외 시장 개척단 참여 (중앙아시아, 중국, 베트남, UAE 등)  
· 중앙우체국 가스터빈 열병합 발전 설비시공
- 2007 · 당진공장 준공  
· 수도권 매립지 바이오가스 발전소 700KW 발전사업허가
- 2008 · 이노비즈 선정 기업 등록, 전기공사면허 획득  
· 경방 K-project 열병합 발전설비(4.8MW) 설치공사 시행  
· 천안 청수 지구 구역형 CES(25MW)발전설비 설치 공사 시행
- 2009 · "(주)지엔씨에너지" 사명 변경  
· 특허 및 실용신안 취득  
· (발전기 제어 컨트롤판넬용 연속 제습형 제습장치)
- 2010 · 스마트그리드협회 회원가입  
· OHSAS18001 인증 획득  
· 신재생에너지 전문기업 등록  
· 녹색인증(기술) 기업

### 2011 ~ 현재

- 2012 · 수도권매립지 바이오가스발전소 1.9M로 발전사업증설  
· 해외건설업 신고(전기공사, 기계설비)  
· 특허취득(발전기용 절연애자)
- 2013 · 바이오가스 전처리 장치 특허 획득  
· 코스닥 상장  
· 청주 매립지 바이오가스 발전 사업 취득  
· 대통령 표창 수상
- 2014 · 특허취득(내진스토퍼 외 3종)  
· 충남 서산시 바이오가스발전소 허가 획득  
· MAS협회 회원가입  
· K마크 인증획득  
· 녹색기술 인증획득
- 2015 · 동두천 하수처리장 발전시설 가동  
· 청주 매립가스 발전소 가동  
· 청주 유기성 폐기물 에너지화 발전시설 가동  
· 녹색사업 인증획득
- 2016 · 무역의 날 1000만불탑 수상  
· 새로운 발전기 브랜드 "CENG" 등록  
· 김해시 바이오가스 발전사업협약
- 2017 · 순천시 내 매립가스 발전소 인수  
· 여수시 바이오가스발전 사업 협약  
· 김해바이오가스발전소 준공(8월)
- 2018 · 청주 친환경 에너지타운 바이오가스 열병합 발전소 준공  
· 동두천 바이오가스 발전소 추가 증설  
· 석문 제2공장 준공  
· 한빛에너지 인수
- 2019 · 청주친환경에너지타운(발전소) 개소  
· 창립 30주년  
· 바이오가스 열병합발전 시스템 특허등록  
· 캠비코리아 투자협약  
· 산업환경설비공사업 등록  
· 화성시 바이오가스 열병합발전소 설치 협약
- 2020 · 속초 바이오가스 발전사업 협약  
· 특허등록\_내진 댐퍼마운트 / 특허청  
· 우수제품지정\_내진발전기 / 조달청  
· 건설기술용업등록
- 2022 · 폐플라스틱 열분해유 합성가스 발전사업 협약  
· 석문그린에너지 신설법인  
· 석문연료전지발전소 착공
- 2023 · 마곡 R&D센터 준공  
· 석문연료전지 발전소 준공 및 상업운전
- 2024 · 파푸아뉴기니, Posco International Power (PNGLAE) Limited 인수

# Application

## 적용



### 공공기관 GOVERNMENTS

GNC supplies backup gensets for government departments



### 데이터 센터 DATA CENTER

GNC offers backup power for IDC, covered 70% of Internet Data Center in Korea.



### 아파트단지 APARTMENT COMPLEX

GNC offers backup power for Apartment complex.



### 오폐수처리장 WASTEWATER TREATMENT PLANT

GNC supplies gensets for Wastewater treatment plant.



### 제조현장 MANUFACTURING SITES

GNC gensets are widely used in different kind of manufacturing sites.



### 건설현장 CONSTRUCTION SITES

GNC gensets are widely used in different kind of constructions.



### 호텔 & 오피스빌딩 HOTEL & OFFICE BUILDING

GNC offers power for hotels and office building, such as LOTTE, HYUNDAI etc.



### 병원 HOSPITAL

GNC offers backup power for hospitals.



### 쇼핑몰 SHOPPING MALL

GNC offers backup power for shopping malls.

# Main business

## 주요사업

- 지엔씨에너지는 고객의 선호에 따라 세계 유명 브랜드의 다양한 제품을 공급하고 있습니다.
- 지엔씨에너지는 앞선 기술력으로 비상용뿐만 아니라 상용에 대해서 설계에서 제조, 설치 및 시운전까지 포괄적인 서비스를 제공합니다.
- 발전장비 개발 및 제조에 30년 이상의 풍부한 경험으로 지엔씨에너지는 다양한 용도에 적합한 발전기로 국내, 외 고객들로부터 그 우수성을 인정받고 있습니다.
- GnCenergy provides diverse engines of globally renowned brands in accordance with customer's preference.
- GnCenergy offers comprehensive service from design to production, installation and commissioning test not only in emergency use but also in prime use through advanced technology.
- With 30 years of experience in development and production of power generation equipments, GnCenergy is recognized by domestic and overseas customers for its excellent generator suitable for various use.

### 비상 및 상용 발전기 사업

#### Emergency & Prime Power Generator

- 당사는 국산엔진을 이용한 바이오 가스 발전시설을 상용화 하였습니다.
- 한국기계연구원(KIMM)과 함께 수도권매립지에서 국산엔진을 사용하여 바이오가스발전 실증연구를 진행하였습니다.
- 국내 최초로 순수 국내기술로 400kw급 바이오가스 열병합시스템을 개발하였습니다.
- 수도권매립지의 실증운전을 통해 성능이 검증되어 국내.외의 매립지와 폐수, 하수 처리장 등에 바이오가스발전사업에 적용하고 있습니다.
- We have commercialized bio-gas power generation facilities using domestic engines.
- We conducted research on biogas power generation using domestic engine at the Seoul metropolitan landfill together with KIMM.
- For the first time in Korea, we developed a 400kW class bio-gas Co-generation system with pure domestic technologies.
- We are applying the bio-gas power generation to landfill sites, wastewater and sewage treatment plants in Korea and overseas, because the performance of it is verified through the demonstration operation of the metropolitan landfill.

### 친환경발전 사업

#### Eco-Friendly Generation

- 열병합발전은 난방, 냉방, 가정내 온수 및 산업공정용수 등으로 사용될 수 있는 스팀과 온수와 같은 유용한 에너지를 공급하기 위해 발전시 버려지는 열을 회수하는 현장 발전입니다. 열병합발전은 전통적 기술에 대한 효율 50%와 비교하여 80% 이상의 효율을 획득할 수 있습니다.
- CES는 단일 중앙발전소 또는 몇개의 분산발전소가 아닌 상호 연계발전소로부터 다중 건물들에 난방, 냉방 및 전력을 공급한다. 전기를 생산하여 전력시장에 판매하지 않고 특정 공급 구역내 사용자에게 직접 판매하는 전기사업입니다.
- CHP(Combined Heat and Power) is on-site electricity generation that captures the heat that would otherwise be wasted to provide useful thermal energy –such as steam or hot water – that can be used for space heating, cooling, domestic hot water and industrial process. In this way, and by avoiding distribution losses, CHP can achieve efficiencies of over 80%, compared to 50% for conventional technologies.
- CES(Community Energy System) supplies heating, cooling and power to multiple buildings from a centralized plant or from several interconnected but distributed plants. CES is electricity generation business for the direct sale to customers in the community.

### 열병합발전 EPC 사업

#### Co-Generation EPC

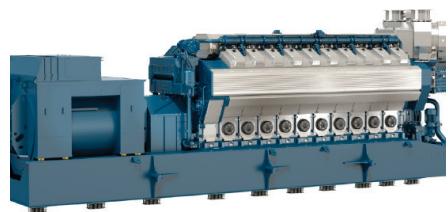
# Emergency & Prime Power Generator

비상 및 상용 발전기



디젤엔진발전기

Diesel Engine Generator  
( 60 ~ 4,000kW )



가스엔진발전기  
Gas Engine Generator

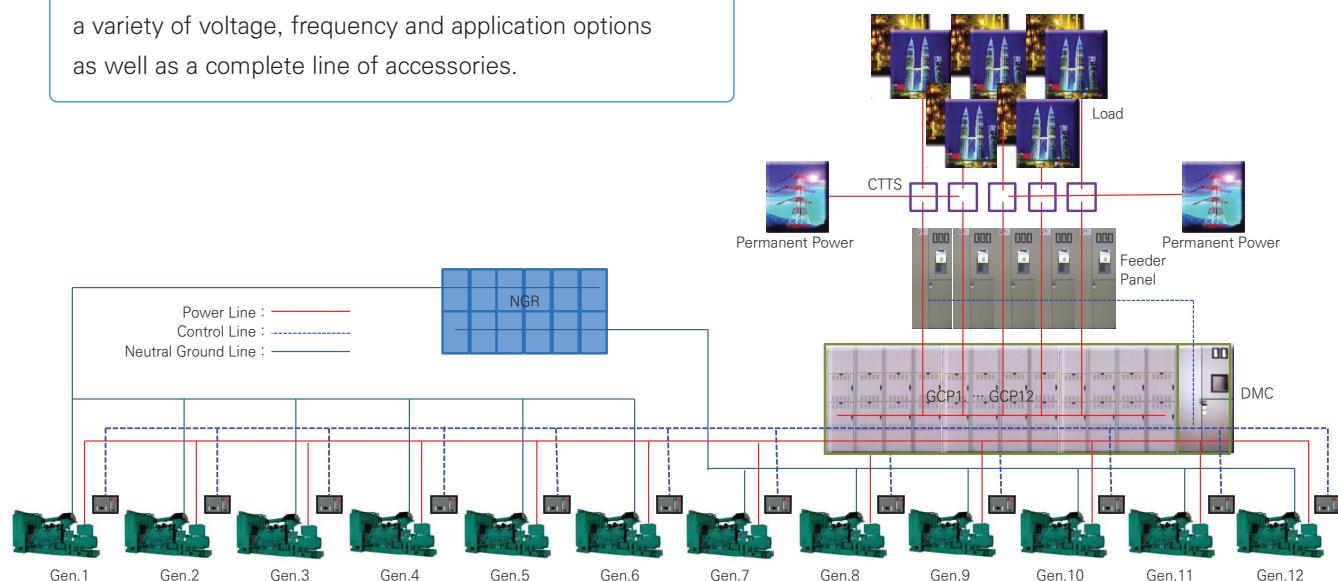
( 400 ~ 21,840kW )



가스터빈발전기

Gas Turbine Generator  
( 300 ~ 5,200kW )

**CENGEN** Emergency and Prime Power Generators feature a variety of voltage, frequency and application options as well as a complete line of accessories.





## Diesel Engine Generator

디젤 엔진 발전기

### CENGEN BAUDOUIN POWERKIT

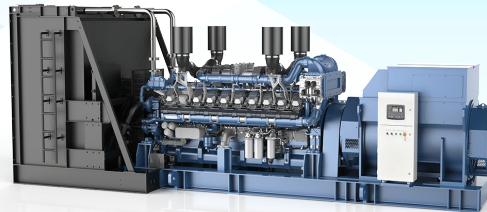
SET MODEL	GNC-160-BD	GNC-200-BD	GNC-250-BD	GNC-300-BD	GNC-330-BD	GNC-360-BD	GNC-400-BD	GNC-450-BD	GNC-500-BD	GNC-550-BD	GNC-610-BD	GNC-660-BD	GNC-750-BD	GNC-800-BD	GNC-900-BD														
Generator	Stand-by Power	kW	160	200	250	300	330	360	400	450	500	550	610	660	750	800	900												
		kVA	200	250	313	375	413	450	500	563	625	688	763	825	938	1,000	1,125												
Prime Power	Prime Power	kW	145	182	227	273	300	327	364	409	455	500	555	600	682	727	818												
		kVA	182	228	284	342	375	409	455	512	569	625	694	750	853	910	1,023												
Frequency	Hz	60																											
RPM	RPM	1,800																											
Pole, Phase, Wire		4Pole, 3Phase, 4Wire																											
Insulation Class		F,H CLASS																											
Power Factor		0.8																											
Exciting System		Brushless Self Exciting																											
Bearing		Single Ball Bearing																											
Voltage	V	220/127, 380/220, 440/254, 3,300, 6,600																											
BAUDOUIN																													
Manufacturer																													
Model	6M11G160/6	6M16G200/6	6M16G250/6	6M16G308/6	6M21G330/6	6M21G390/6	6M21G400/6	6M21G460/6	6M21G520/6	8M21G550/6	6M33G600/6	6M31G800/6	6M31G800/6	6M33G900/6															
Stand-by Power	HP	241	319	386	483	516	601	617	684	778	825	898	992	1,143	1,143	1,357													
Prime Power	HP	220	290	351	439	469	546	561	603	711	738	818	898	1,035	1,035	1,220													
RPM	RPM	1800																											
No. of Cylinder	EA	6	6	6	6	6	6	6	8	8	6	6	6	6	8														
Bore x Stroke	mm	105 x 130	126 x 130	126 x 130	126 x 130	127 x 165	150 x 185	150 x 185	149 x 177	149 x 177	150 x 185																		
Displacement	cc	6,750	9,726	9,726	9,726	12,540	12,540	12,540	12,540	16,720	16,720	19,600	19,600	18,500	18,500	26,140													
Compression Ratio		18.0 : 1	17.0 : 1	17.0 : 1	17.0 : 1	16.0 : 1	16.0 : 1	16.0 : 1	15.2 : 1	15.0 : 1	15.0 : 1	15.0 : 1	14.0 : 1	14.0 : 1	15.0 : 1														
Engine type		4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)																											
Aspiration		Turbocharged & Air intercooled																											
Starting System	DC12V	Electric motor by DC24 battery																											
Governor		Electronic type						ECU Type			Eletronic	ECU Type																	
Coolant Cap.(SET)	L	21	35	35	44	47	47	47	52	101	101	159	159	159	159	162													
Lube Oil Capacity	L	18	19	19	19	34	30	30	37	37	37	36	36	60	60	90													
Fuel Consumption	L/hr	43.9	56.5	70.1	88.9	90.9	110.2	114.3	129	142.5	155.1	168.8	189.9	216	216	264.2													
DIM	Length	mm	2,500	2,800	2,900	3,000	3,100	3,200	3,200	3,200	3,200	3,750	3,750	3,600	3,700	3,700	3,900												
	Width	mm	980	1,060	1,060	1,100	1,136	1,136	1,136	1,233	1,360	1,680	1,700	1,358	1,400	1,400	1,870												
	Height	mm	1,400	1,500	1,500	1,600	1,650	1,650	1,650	1,790	1,777	2,114	2,114	1,882	2,044	2,044	2,200												
	Weight	kg	1,907	2,086	2,165	2,405	2,739	2,871	2,923	3,051	3,891	4,495	4,544	4,685	4,692	4,692	6,467												
PAD	Length	mm	3,500	3,500	3,500	3,800	3,800	3,800	3,800	3,800	3,800	4,500	4,500	4,500	4,500	4,500	4,500												
	Width	mm	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	2,000	2,000	2,000	2,000	2,000	2,000	2,500												
	Height	mm	300	300	300	300	300	300	300	300	400	300	300	300	300	300	400												
D.A	Radiator air flow	m³/min	308	394	394	487	568	568	527	569	673	900	900	900	1,060	1,060	1,201												
	Combustion air flow	m³/min	11.8	18.6	19.8	24	26.4	31.2	32.4	36.6	40.1	48.3	50.8	57.3	54.4	54.4	74.6												
	E.A(OUT - LET)	m²	0.6	0.8	0.8	1	1.2	1.2	1.1	1.2	1.4	1.9	1.9	1.9	2.2	2.2	2.5												
	O.A(IN - LET)	m²	0.8	1	1	1.2	1.4	1.4	1.3	1.4	1.7	2.3	2.3	2.3	2.7	2.7	3												

\* All parameters are for reference only. Final technical data should refer to approval specification for each model.

## BAUDOUIN

SET MODEL		WPG1000*76	WPG1100*76	WPG1300*76	WPG1540*76	WPG1650*76	WPG1750*76	WPG2000*76	WPG2200*76	WPG2500*76	WPG2640*76	WPG2800*76	WPG3000*76	WPG3300*76	WPG4200*76	
Generator	Stand-by Power	kW	1,000	1,100	1,300	1,500	1,600	1,750	2,000	2,200	2,500	2,600	2,800	3,000	3,300	4,200
		kVA	1,250	1,375	1,625	1,875	2,063	2,188	2,500	2,750	3,125	3,250	3,500	3,750	4,125	5,250
	Prime Power	kW	909	1,000	1,182	1,364	1,455	1,591	1,818	2,000	2,273	2,364	2,545	2,727	3,000	3,818
		kVA	1,137	1,250	1,478	1,705	1,819	1,989	2,273	2,500	2,841	2,955	3,182	3,410	3,750	4,773
	Frequency	Hz	60													
	RPM	RPM	1,800													
	Pole, Phase, Wire		4Pole, 3Phase, 4Wire													
	Insulation Class		F,H CLASS													
	Power Factor		0.8													
	Exciting System		P.M.G – Permanent Magnet Generator													
Engine	Bearing		Single Ball Bearing													
	Voltage	V	220/127, 380/220, 440/254, 3,300, 6,600													
	Manufacturer		BAUDOUIN													
	Model		12M33G1000/6	12M33G1100/6	12M33G1300/6	16M33G1500/6	16M33G1650/6	16M33G1750/6	20M33G2000/6	12M55G2250/6	12M55G2500/6	16M55G2640/6	16M55G2800/6	16M55G3000/6	20M44G4200/6	
	Stand-by Power	HP	1486	1696	1904	2253	2394	2575	2,990	3,299	3,621	3,969	4,224	4,492	4,828	6,097
	Prime Power	HP	1350	1542	1730	2052	2179	2347	2,718	2,950	3,286	3,634	3,849	3,929	4,425	5,548
	RPM	RPM	1800													
	No. of Cylinder	EA	12	12	12	16	16	16	20	12	12	16	16	16	16	20
	Bore x Stroke	mm	150 x 185	150 x 185	150 x 185	150 x 185	150 x 185	150 x 185	150 x 185	180 x 215	180 x 215					
	Displacement	cc	39,200	39,200	39,200	52,300	52,300	52,300	65,400	65,650	65,650	87,500	87,500	87,500	109,400	
DIM	Compression Ratio		15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1
	Engine type		4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)													
	Aspiration		Turbocharged & Air-intercooled													
	Starting System		Electric motor by DC24 battery													
	Governor		Electronic Type													
	Coolant Cap.(SET)	L	320	320	320	480	480	480	550	700	700	850	850	850	850	1,184
	Lube Oil Capacity	L	162	162	162	185	185	185	235	460	460	582	582	582	582	705
	Fuel Consumption	L/hr	285.5	285.5	357.5	402.1	435.4	496.6	554.6	586	653.1	706.4	749	801	890.1	1112.9
	Length	mm	4,800	4,800	5,135	5,900	5,900	5,900	7,000	6,550	6,550	7,610	7,610	7,610	7,810	10,317
	Width	mm	2,195	2,195	2,195	2,200	2,200	2,200	2,760	2,800	2,800	3,000	3,000	3,000	3,000	3,409
PAD	Height	mm	2,476	2,476	2,476	2,800	2,800	2,800	3,250	2,990	2,990	3,580	3,580	3,580	3,580	4,744
	Weight	kg	9,770	9,800	10,490	13,128	13,619	14,491	16,932	20,812	20,812	28,212	28,212	28,212	28,212	42,500
	Length	mm	5,500	5,500	6,000	6,500	6,500	6,500	8,000	7,500	7,500	8,500	8,500	8,500	8,500	11,000
D.A	Width	mm	2,500	2,500	2,500	2,500	2,500	2,500	3,000	3,200	3,200	3,800	3,800	3,800	3,800	4,000
	Height	mm	400	400	400	500	500	500	400	500	500	500	500	500	500	600
	Radiator air flow	m³/min	1,680	1,680	1,680	2,130	2,130	2,130	2,580	2,964	2,964	3,156	3,156	3,156	3,156	4,000
	Combustion air flow	m³/min	88.3	97.2	115.5	128.2	142.9	150	172	178.7	192.6	206.5	231.3	237.1	263	300
	E.A(OUT - LET)	m²	3.5	3.5	3.5	4.4	4.4	4.4	5.4	6.2	6.2	6.6	6.6	7.7	6.6	8.3
	O.A(IN - LET)	m²	4.2	4.2	4.3	5.4	5.4	5.4	6.6	7.5	7.5	8	8.1	3.1	8.1	10.2

\* All parameters are for reference only. Final technical data should refer to approval specification for each model.



SET MODEL		GNC-800-BD	GNC-1100-BD	GNC-1300-BD	GNC-1540-BD	GNC-1650-BD	GNC-1750-BD	
Generator	Stand-by Power	kW	800	1,100	1,300	1500	1,600	1,750
		kVA	1,000	1,375	1,625	1,875	2,063	2,188
	Prime Power	kW	909	1,000	1,182	1,364	1,455	1,591
		kVA	1,137	1,250	1,478	1,705	1,819	1,989
	Frequency	Hz			60			
	RPM	RPM			1,800			
	Pole, Phase, Wire				4Pole, 3Phase, 4Wire			
	Insulation Class				F,H CLASS			
	Power Factor				0.8			
Engine	Exciting System				P.M.G – Permanent Magnet Generator			
	Bearing				Single Ball Bearing			
	Voltage	V			220/127, 380/220, 440/254, 3,300, 6,600			
	Manufacturer				BAUDOUIN			
	Model		12M26D902	12M33D1265	12M33D1420	16M33D1680	16M33D1785	16M33D1920
	Stand-by Power	HP	1486	1696	1904	2253	2394	2575
	Prime Power	HP	1350	1542	1730	2052	2179	2347
	RPM	RPM			1800			
	No. of Cylinder	EA	12	12	12	16	16	16
D.M	Bore x Stroke	mm	150 x 185	150 x 185	150 x 185	150 x 185	150 x 185	150 x 185
	Displacement	cc	39,200	39,200	39,200	52,300	52,300	52,300
	Compression Ratio		15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1
	Engine type		4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)					
	Aspiration		Turbocharged & Air-intercooled					
	Starting System		Electric motor by DC24 battery					
	Governor		Electronic Type					
	Coolant Cap.(SET)	L	210	320	320	480	480	480
	Lube Oil Capacity	L	113	162	162	185	185	185
PAD	Fuel Consumption	L/hr	195	285.5	357.5	402.1	435.4	496.6
	Length	mm	4,175	4,800	5,135	5,900	5,900	5,900
	Width	mm	1,992	2,195	2,195	2,200	2,200	2,200
	Height	mm	2,288	2,476	2,476	2,800	2,800	2,800
	Weight	kg	6,960	9,800	10,490	13,128	13,619	14,491
	Length	mm	5,000	5,500	6,000	6,500	6,500	6,500
	Width	mm	2,500	2,500	2,500	2,500	2,500	2,500
	Height	mm	400	400	400	500	500	500
	Radiator air flow	m³/min	1,360	1,680	1,680	2,130	2,130	2,130
D.A	Combustion air flow	m³/min	69	97.2	115.5	128.2	142.9	150
	E.A(OUT - LET)	m²	2.8	3.5	3.5	4.4	4.4	4.4
	O.A(IN - LET)	m²	3.4	4.2	4.3	5.4	5.4	5.4

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## SCANIA

SET MODEL		GNC-250-SC	GNC-275-SC	GNC-300-SC	GNC-330-SC	GNC-360-SC	GNC-400-SC	GNC-450-SC	GNC-500-SC	GNC-560-SC	GNC-610-SC	GNC-660-SC	GNC-700-SC	GNC-750-SC	
<b>Generator</b>	Stand-by Power	kW	250	275	300	330	360	400	450	500	560	610	660	700	750
		kVA	313	344	375	413	450	500	563	625	700	763	825	875	938
	Prime Power	kW	227	250	273	300	327	364	409	455	509	555	600	636	682
		kVA	284	313	341	375	409	455	511	569	636	674	750	795	853
	Frequency	Hz													60
	RPM	RPM													1,800
	Pole, Phase, Wire														4Pole, 3Phase, 4Wire
	Insulation Class														F,H CLASS
	Power Factor														0.8
	Exciting System														Brushless Self Exciting
<b>Engine</b>	Bearing														Single Ball Bearing
	Voltage	V													220/127, 380/220, 440/254, 3,300, 6,600
	Manufacturer														SCANIA
	Model		DC09-072A	DC09-072A	DC09-072A	DC09-072A	DC13-072A	DC13-072A	DC13-072A	DC13-093A	DC16-093A	DC16-078A	DC16-078A	DC16-078A	
	Stand-by Power	HP	375	408	437	487	552	611	662	747	830	902	955	1054	1127
	Prime Power	HP	341	371	397	426	506	558	605	672	747	812	870	949	1015
	RPM	RPM													1800
	No. of Cylinder	EA	5	5	5	5	6	6	6	6	6	8	8	8	8
	Bore x Stroke	mm	130x140	130x140	130x140	130x140	130x160	130x160	130x160	130x160	130x154	130x154	130x154	130x154	
	Displacement	cc	9,300	9,300	9,300	9,300	12,700	12,700	12,700	12,700	12,700	16,400	16,400	16,400	16,400
<b>DIM</b>	Compression Ratio		16.0 : 1	16.0 : 1	16.0 : 1	16.0 : 1	16.3 : 1	16.3 : 1	16.3 : 1	16.3 : 1	16.3 : 1	16.7 : 1	16.7 : 1	16.7 : 1	16.7 : 1
	Engine type														4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)
	Aspiration														Turbocharged & Air-intercooled
	Starting System														Electric motor by DC24 battery
	Governor														Electric Type
	Coolant Cap.(SET)	L	37	37	37	37	45	45	45	68	68	68	68	68	68
	Lube Oil Capacity	L	36	36	36	36	36	36	36	48	48	48	48	48	48
	Fuel Consumption	L/hr	65.6	73.2	81.1	89.2	91.7	102.8	117.8	124	147.1	161.5	171.1	177.4	192
	Length	mm	2,900	2,900	2,900	2,900	3,390	3,390	3,390	3,390	3,390	3,300	3,300	3,300	3,300
	Width	mm	1,015	1,015	1,015	1,015	1,128	1,128	1,128	1,128	1,128	1,316	1,316	1,316	1,316
<b>PAD</b>	Height	mm	1,549	1,549	1,549	1,549	1,845	1,845	1,845	1,845	1,845	1,920	1,920	1,920	1,920
	Weight(G-Pac)	kg	2,074	2,193	2,256	2,349	2,727	2,769	2,852	2,919	3,366	3,415	3,536	3,573	3,936
	Length	mm	3,500	3,500	3,500	3,500	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
	Width	mm	1,800	1,800	1,800	1,800	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
<b>D.A</b>	Height	mm	300	300	300	300	300	300	300	300	300	300	300	300	300
	Radiator air flow	m³/min	500	500	500	500	821	821	821	821	1079	1079	1079	1079	1079
	Combustion air flow	m³/min	24	24	24	24	28	30	30	30	37	42	40	40	40
	E.A(OUT - LET)	m²	1	1	1	1	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2	2.2
	O.A(IN - LET)	m²	1.2	1.2	1.2	1.2	2	2	2	2	2	2.7	2.7	2.7	2.7

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.

## HYUNDAI

	SET MODEL	GNC-60-HD	GNC-80-HD	GNC-170-HD	GNC-200-HD	GNC-230-HD	GNC-250-HD	GNC-275-HD	GNC-300-HD	GNC-330-HD	GNC-360-HD	
Generator	Stand-by Power	kW	60	80	170	200	230	250	275	300	330	360
		kVA	75	100	213	250	288	313	344	375	413	450
	Prime Power	kW	54	73	155	182	209	227	250	273	300	327
		kVA	69	91	194	228	262	284	313	342	375	409
	Frequency	Hz						60				
	RPM	RPM							1,800			
	Pole, Phase, Wire								4Pole, 3Phase, 4Wire			
	Insulation Class								F,H CLASS			
	Power Factor								0.8			
	Exciting System								Brushless Self Exciting			
Engine	Bearing								Single Ball Bearing			
	Voltage	V							220/127, 380/220, 440/254, 3,300, 6,600			
	Manufacturer								HYUNDAI			
	Model		SP344CB	SP344CC	P086TI-1	P086TI	DP086LA	P126TI-3	P126TI	P126TI-II	DP126CA	DP126CB
	Stand-by Power	HP	98	123	256	298	339	386	399	458	503	512
	Prime Power	HP	89	111	233	275	305	351	372	412	457	489
	RPM	RPM						1800				
	No. of Cylinder	EA	4	4	6	6	6	6	6	6	6	6
	Bore x Stroke	mm	98 x 113	98 x 113	111 x 139	111 x 139	111 x 139	123 x 155	123 x 155	123 x 155	123 x 155	123 x 155
	Displacement	cc	3,400	3,400	8,071	8,071	8,071	11,051	11,051	11,051	11,051	11,051
DIM	Compression Ratio		16.8 : 1	16.8 : 1	16.4 : 1	16.4 : 1	16.7 : 1	17.1 : 1	17.1 : 1	17.1 : 1	16.5 : 1	16.5 : 1
	Engine type								4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)			
	Aspiration								Turbocharged & Air intercooled			
	Starting System		Electric motor by DC12 battery						Electric motor by DC24 battery			
	Governor		ECU Type						Electronic type		ECU Type	
	Coolant Cap.(SET)	L	14.2	14.2	44	44	44	51	51	51	53	53
	Lube Oil Capacity	L	12.6	12.6	15.5	15.5	15.5	23	23	23	44	44
	Fuel Consumption	L/hr	18.1	23	46.7	56.8	62.9	76.5	76.5	89.5	90	96
	Length	mm	1,950	1,950	2,650	2,650	2,650	3,000	3,000	3,000	3,040	3,040
	Width	mm	745	745	940	940	940	1,120	1,120	1,120	1,165	1,165
PAD	Height	mm	1,450	1,450	1,635	1,635	1,820	1,635	1,635	1,635	1,940	1,940
	Weight	kg	865	865	1,570	1,620	1,700	1,860	1,980	2,046	2,321	2,453
	Length	mm	2,500	2,500	3,200	3,200	3,200	3,500	3,500	3,500	3,500	3,500
D.A	Width	mm	1,500	1,500	1,500	1,500	1,500	1,700	1,700	1,700	1,700	1,700
	Height	mm	300	300	300	300	300	300	300	300	300	300
	Radiator air flow	m³/min	141	141	224	224	224	433	433	530	483	483
	Combustion air flow	m³/min	6	6	22	23.5	25.5	27.5	28.5	30.5	26.7	27.9
	E.A(OUT - LET)	m²	0.3	0.3	0.5	0.5	0.5	0.9	0.9	1.1	1	1
	O.A(IN - LET)	m²	0.4	0.4	0.6	0.6	0.6	1.1	1.1	1.3	1.2	1.2

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



SET MODEL		GNC-400-HD	GNC-450-HD	GNC-500-HD	GNC-550-HD	GNC-610-HD	GNC-660-HD	GNC-700-HD	GNC-750-HD	GNC-800-HD	GNC-900-HD	
<b>Generator</b>	Stand-by Power	kW	400	450	500	550	610	660	700	750	800	900
		kVA	500	563	625	688	763	825	875	938	1,000	1,125
	Prime Power	kW	364	409	455	500	555	600	636	682	727	818
		kVA	455	512	569	625	694	750	796	853	909	1,023
	Frequency	Hz	60									
	RPM	RPM	1,800									
	Pole, Phase, Wire		4Pole, 3Phase, 4Wire									
	Insulation Class		F,H CLASS									
	Power Factor		0.8									
	Exciting System		Brushless Self Exciting									
<b>Engine</b>	Bearing		Single Ball Bearing									
	Voltage	V	220/127, 380/220, 440/254, 3,300, 6,600									
	Manufacturer		HYUNDAI									
	Model		DP126CD	DP126CE	DP158LD	DP180LA	DP180LB	DP222LA	DP222LB	DP222CA	DP222CB	DP222CC
	Stand-by Power	HP	614	673	745	824	886	988	1,048	1,121	1,193	1,334
	Prime Power	HP	558	601	677	749	805	898	953	1,021	1,085	1,207
	RPM	RPM	1800									
	No. of Cylinder	EA	6	6	8	10	10	12	12	12	12	12
	Bore x Stroke	mm	123 x 155	123 x 155	128 x 142	128 x 142	128 x 142	128 x 142	128 x 142	128 x 142	128 x 142	128 x 142
	Displacement	cc	11,051	11,051	14,618	18,273	18,273	21,927	21,927	21,927	21,927	21,927
<b>DIM</b>	Compression Ratio		16.5 : 1	16.5 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	15.0 : 1	14.6 : 1	14.6 : 1	14.6 : 1
	Engine type		4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)									
	Aspiration		Turbocharged & Air-intercooled									
	Starting System		Electric motor by DC24 battery									
	Governor		ECU Type		Electric Type				ECU Type			
	Coolant Cap.(SET)	L	53	53	79	91	91	114	114	66	66	66
	Lube Oil Capacity	L	44	44	22	34	34	40	40	75	75	75
	Fuel Consumption	L/hr	110	120	139.6	154.1	165.3	179.9	192.8	204	216	241
	Length	mm	3,040	3,040	3,000	3,200	3,200	3,390	3,390	3,670	3,670	3,670
	Width	mm	1,165	1,165	1,400	1,400	1,400	1,400	1,400	1,640	1,640	1,640
<b>PAD</b>	Height	mm	1,940	1,940	1,820	1,875	1,875	2,120	2,120	2,240	2,240	2,240
	Weight	kg	2,495	2,578	2,784	3,075	3,124	3,458	3,495	4,043	4,127	4,207
	Length	mm	3,500	3,500	3,500	3,800	3,800	4,000	4,000	4,200	4,200	4,200
	Width	mm	1,700	1,700	2,000	2,000	2,000	2,000	2,000	2,200	2,200	2,200
<b>D.A</b>	Height	mm	300	300	300	300	300	300	300	300	300	300
	Radiator air flow	m³/min	483	483	850	850	850	1,050	1,050	1,510	1,510	1,510
	Combustion air flow	m³/min	30.4	32.5	36.6	43	45.5	53.5	56.8	43	46	49
	E.A(OUT - LET)	m²	1	1	1.8	1.8	1.8	2.2	2.2	3.1	3.1	3.1
	O.A(IN - LET)	m²	1.2	1.2	2.1	2.1	2.1	2.6	2.6	3.7	3.7	3.7

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



# Diesel Engine Generator

디젤 엔진 발전기

**CUMMINS**

SET MODEL		GNC-800-C	GNC-1000-C	GNC-1250-C	GNC-1500-C	GNC-2000-C
Generator	Stand-by Power	kW	800	1,000	1,250	1,500
		kVA	1,000	1,250	1,563	1,875
	Prime Power	kW	727	909	1,136	1,364
		kVA	909	1,136	1,420	1,705
	Frequency	Hz			60	
	RPM	RPM			1,800	
	Pole, Phase, Wire				4Pole, 3Phase, 4Wire	
	Insulation Class				F,H CLASS	
	Power Factor				0.8	
	Exciting System				Brushless Self Exciting	
Engine	Bearing				Single Ball Bearing	
	Voltage	V			220/127, 380/220, 440/254, 3,300, 6,600	
	Manufacturer				CUMMINS	
	Model		QSK23-G3	KTA38-G4	KTA50-G3	KTA50-G9
	Stand-by Power	HP	1,200	1,490	1,850	2,220
	Prime Power	HP	1,085	1,350	1,742	1,855
	RPM	RPM			1800	
	No. of Cylinder	EA	6	12	16	16
	Bore x Stroke	mm	170 x 170	159 x 159	159 x 159	159 x 159
	Displacement	cc	23,150	38,000	50,300	50,300
DIM	Compression Ratio		16.0 : 1	14.0 : 1	13.9 : 1	13.9 : 1
	Engine type		4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)			
	Aspiration		Turbocharged & Air intercooled			
	Starting System		Electric motor by DC24 battery			
	Governor		Electronic type			
	Coolant Cap.(ENGINE)	L	46.5	124	161	174
	Coolant Cap.(SET)	L	121.5	254	297	310
	Lube Oil Capacity	L	103	135	152	152
	Fuel Consumption	L/hr	206	271	330	392
	Length	mm	4,060	4,200	4,950	5,300
PAD	Width	mm	1,502	2,060	2,057	2,150
	Height	mm	2,088	2,320	2,317	2,656
	Weight	kg	6,150	7,856	9,785	11,558
D.A	Length	mm	4,800	5,000	5,600	6,200
	Width	mm	2,200	2,400	2,400	2,400
	Height	mm	400	400	400	500
D.A	Radiator air flow	m³/min	426	1,140	1,236	1,644
	Combustion air flow	m³/min	67.9	86.1	110.4	125
	E.A(OUT - LET)	m²	0.9	2.4	2.6	2.8
	O.A(IN - LET)	m²	1.2	2.9	3.2	3.5

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



## CUMMINS

SET MODEL	C800D6	C1000D6B	C1250D6	C1500D6	C2000D6	C2250D6A	DQKAN	DQLD	C3000D6EB	C3250D6	C3500D6		
Generator	Stand-by Power	kW	800	1,020	1,270	1,545	2,000	2,250	2,500	2,750	3,000	3,250	3,500
		kVA	1,000	1,276	1,588	1,931	2,500	2,813	3,125	3,438	3,750	4,063	4,375
	Prime Power	kW	725	928	1,120	1,286	1,825	-	-	2,500	2,750	3,000	3,000
		kVA	906	1,160	1,400	1,608	2,281	-	-	3,125	3,438	3,750	3,750
	Frequency	Hz											60
	RPM	RPM											1,800
	Pole, Phase, Wire												4Pole, 3Phase, 4Wire
	Insulation Class												F,H CLASS
	Power Factor												0.8
	Exciting System												P.M.G – Permanent Magnet Generator
Engine	Bearing												Single Ball Bearing or Double Ball Bearing
	Voltage	V											220/127, 380/220, 440/254, 3,300, 6,600
	Manufacturer												CUMMINS
	Model		QSK23-G3	KTA38-G14	KTA50-G3	KTA50-G9	QSK60-G6	QSK60-G9	QSK60-G19	QSK78-G8	QSK78-G37	QSK95-G2	QSK95-G2
	Stand-by Power	HP	1,216	1,511	1,664	2,016	2,671	3,037	3,640	4,060	4,441	4,656	5,051
	Prime Power	HP	1,099	1,369	1,528	1,748	2,516	-	-	3,670	4,049	4,309	4,309
	RPM	RPM	1800										
	No. of Cylinder	EA	6	12	16	16	16	16	16	18	18	16	16
	Bore x Stroke	mm	170 x 170	159 x 159	159 x 159	159 x 159	159 x 190	159 x 190	159 x 190	170 x 190	170 x 190	190 x 210	190 x 210
	Displacement	cc	23,150	38,000	50,000	50,000	60,200	60,200	60,200	77,600	77,600	95,300	95,300
DIM	Compression Ratio		16.0 : 1	13.9 : 1	13.9 : 1	13.9 : 1	14.5 : 1	14.5 : 1	14.5 : 1	15.5 : 1	15.3 : 1	15.5 : 1	15.1 : 1
	Engine type												4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)
	Aspiration												Turbocharged & Air-intercooled
	Starting System												Electric motor by DC24 battery
	Governor												Electric Type
	Coolant Cap.(SET)	L	109.5	229	501	501	494	494	587	455	455	1,120	1,120
	Lube Oil Capacity	L	103	135	152	152	378	378	378	413	405	647	647
	Fuel Consumption	L/hr	204.4	246	330	392	520	569	625	689	773	825	901
	Length	mm	4,340	4,478	5,143	5,779	6,175	6,175	7,159	7,137	7,328	8,021	8,021
	Width	mm	1,763	1,682	2,000	2,147	2,286	2,494	2,713	2,751	3,064	3,028	3,028
PAD	Height	mm	2,095	2,211	2,518	2,473	2,537	3,201	3,186	3,388	3,614	3,663	3,663
	Weight	kg	6,289	8,416	10,069	10,574	17,471	17,847	22,279	24,237	25,361	30,247	30,247
	Length	mm	5,000	5,200	6,000	6,800	6,800	6,800	8,000	8,000	8,000	9,000	9,000
D.A	Width	mm	2,400	2,400	2,400	2,500	3,000	3,000	3,200	3,800	3,800	3,800	3,800
	Height	mm	300	400	400	400	500	500	500	500	500	500	500
	Radiator air flow	m³/min	888	981	1,518	1,362	1,998	2,040	2,649	3,060	2,751	3,135	3,135
	Combustion air flow	m³/min	67.92	86.1	110.4	125	174	183	193	236	262	279	284
E.A(OUT - LET)	m²	1.9	2	3.2	2.8	4.2	4.3	5.5	6.4	5.7	6.5	6.5	
O.A(IN - LET)	m²	2.3	2.5	3.9	3.5	5.2	5.3	6.8	6.9	7.2	8.1		8.1

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



# Diesel Engine Generator

디젤 엔진 발전기

## CATERPILLAR

SET MODEL	GNC-800-CA	GNC-1000-CA	GNC-1250-CA	GNC-1500-CA	GNC-1750-CA	GNC-2000-CA	GNC-2500-CA	GNC-2750-CA	GNC-3000-CA	GNC-3250-CA	GNC-3500-CA	GNC-3900-CA		
Generator	Stand-by Power	kW	800	1,000	1,250	1,500	1,750	2,000	2,500	2,750	3,000	3,250	3,500	3,900
		kVA	1,000	1,250	1,563	1,875	2,188	2,500	3,125	3,438	3,750	4,063	4,375	4,875
	Prime Power	kW	725	910	1,135	1,360	1,600	1,825	2,250	2,500	2,725	3,000	3,180	3,500
		kVA	906	1,137	1,419	1,700	2,000	2,282	2,813	3,125	3,407	3,750	3,975	4,375
	Frequency	Hz								60				
	RPM	RPM								1,800				
	Pole, Phase, Wire									4Pole, 3Phase, 4Wire				
	Insulation Class									F,H CLASS				
	Power Factor									0.8				
	Exciting System									P.M.G – Permanent Magnet Generator				
Engine	Bearing									Single Ball Bearing or Double Ball Bearing				
	Voltage	V								220/127, 380/220, 440/254, 3,300, 6,600				
	Manufacturer									CATERPILLAR				
	Model	3412C	C32	3512	3512B	3516	3516B	3516C	3516E	C175-16	C175-16	C175-20	C175-20	
	Stand-by Power	HP	1,180	1,502	1,818	2,172	2,520	2,876	3,634	4,043	4,423	4,705	5,166	5,647
	Prime Power	HP	1,071	1,341	1,662	1,971	2,304	2,628	3,272	3,695	4,034	4,356	4,710	5,136
	RPM	RPM								1,800				
	No. of Cylinder	EA	12	12	12	12	16	16	16	16	16	20	20	
	Bore x Stroke	mm	137 x 152	145 x 162	170 x 190	170 x 190	170 x 190	170 x 190	170 x 215	170 x 215	175 x 220	175 x 220	175 x 220	
	Displacement	cc	27,000	32,100	51,800	51,800	69,000	69,000	78,100	78,100	84,600	84,700	105,800	105,800
DIM	Compression Ratio		13.0 : 1	15.0 : 1	13.5 : 1	14.0 : 1	13.5 : 1	14.0 : 1	14.7 : 1	14.7 : 1	15.3 : 1	15.5 : 1	15.5 : 1	15.5 : 1
	Engine type									4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)				
	Aspiration									Turbocharged & Air-intercooled				
	Starting System									Electric motor by DC24 battery				
	Governor									Electric Type				
PAD	Coolant Cap.(SET)	L	149	91	287	303	377	364	413	417	935.5	1391.8	1285	1,285
	Lube Oil Capacity	L	139	99	333	333	416	416	416	481	606	606	757	757
	Fuel Consumption	L/hr	221.9	262.7	342.7	399	460	514	636	720	781	816.1	914.3	1,006
D.A	Length	mm	4,125	4,348	5,562	5,566	6,229	5,923	6,799	7,517	7,687	8,339	8,418	8,418
	Width	mm	1,987	2,187	1,984	2,286	2,286	2,286	2,371	2,640	2,984	3,156	3,263	3,264
	Height	mm	1,906	2,175	2,305	2,420	2,410	2,494	2,997	3,382	3,409	3,156	3,824	3,829
	Weight	kg	6,500	8,000	12,000	14,000	16,000	17,000	20,500	21,500	27,000	31,000	34,000	34,000
	Length	mm	5,000	5,000	6,000	6,000	7,000	7,000	7,700	8,400	8,400	9,000	9,000	9,000
	Width	mm	2,500	2,800	2,500	2,500	2,500	2,500	3,000	3,500	3,500	4,000	4,000	4,000
	Height	mm	300	400	500	500	500	500	500	400	500	500	600	600
	Radiator air flow	m³/min	923	1,175	1,397	1,611	1,611	1,674	2,356	2,688	2,933	3,296	3,426	3,426
	Combustion air flow	m³/min	70	83	106	126	159	164	202	229	264	271	312	339
	E.A(OUT - LET)	m²	1.9	2.4	2.9	3.4	2.8	3.5	4.9	5.6	6.1	6.9	7.1	7.1
	O.A(IN - LET)	m²	2.1	2.6	3.1	3.6	3.7	3.8	5.3	6.1	6.7	7.4	7.8	7.8

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## PERKINS

SET MODEL	GNC-500-P	GNC-550-P	GNC-600-P	GNC-750-P	GNC-800-P	GNC-900-P	GNC-1000-P	GNC-1100-P	GNC-1200-P	GNC-1330-P	GNC-1500-P		
Generator	Stand-by Power	kW	500	550	600	750	800	900	1000	1100	1200	1330	1500
		kVA	625	687	750	937	1000	1125	1250	1375	1500	1675	1875
	Prime Power	kW	455	-	545	682	727	819	909	1000	1100	1200	1350
		kVA	569	-	681	853	909	1023	1136	1250	1350	1500	1700
	Frequency	Hz											60
	RPM	RPM											1,800
	Pole, Phase, Wire												4Pole, 3Phase, 4Wire
	Insulation Class												F,H CLASS
	Power Factor												0.8
	Exciting System												Brushless Self Exciting
Engine	Bearing												Single Ball Bearing
	Voltage	V											220/127, 380/220, 440/254, 3,300, 6,600
	Manufacturer												PERKINS
	Model	2506C-E15TAG3	2506C-E15TAG4	2806C-E18TAG3	4006-23TAG3	4006-23TAG4	4008-TAG2	5008-30TAG5	4012-46TWG2A	4012-46TWG3A	4012-46TAG2A	4012-46TAG3A	
	Stand-by Power	HP	762	835	909	1,140	1,187	1,346	1,485	1,641	1,783	1,978	2,338
	Prime Power	HP	696	-	828	1,031	1,079	1,204	1,342	1,563	1,630	1,808	2,046
	RPM	RPM											1800
	No. of Cylinder	EA	6	6	6	6	6	8	8	12	12	12	12
	Bore x Stroke	mm	137 x 171	137 x 171	145 x 183	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190
	Displacement	cc	15,200	15,200	18,130	22,921	22,921	30,561	30,560	45,482	45,482	45,842	45,842
DIM	Compression Ratio		16.0 : 1	16.0 : 1	14.5 : 1	13.6 : 1	13.6 : 1	13.6 : 1	13.8 : 1	13.0 : 1	13.0 : 1	13.0 : 1	13.0 : 1
	Engine type												4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)
	Aspiration												Turbocharged & Air intercooled
	Starting System												Electric motor by DC24 battery
	Governor												Electronic type
	Coolant Cap.(SET)	L	58	58	61	120	120	162	140	201	201	210	225
	Lube Oil Capacity	L	60	60	62	113.4	113.4	153	153	177	177	177	177
	Fuel Consumption	L/hr	132	146	158	224	233	249	250	298	325	344	390
	Length	mm	3,550	3,550	3,400	3,900	3,900	4,550	4,550	4,500	4,700	5,000	5,000
	Width	mm	1,280	1,280	1,536	1,690	1,690	2,050	2,134	1,990	1,990	2,200	2,200
PAD	Height	mm	2,025	2,050	2,128	2,275	2,275	2,380	2,380	2,521	2,521	2,460	2,764
	Weight	kg	3,543	3,875	4,827	5,240	5,440	7,347	7,275	8,259	8,931	9,565	10,100
	Length	mm	4,500	4,500	4,500	4,500	4,500	5,500	5,500	5,500	5,500	5,800	5,800
D.A	Width	mm	2,000	2,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Height	mm	300	300	300	300	300	300	300	400	400	400	400
	Radiator air flow	m³/min	866	852	1,022	1,140	1,140	1,140	1,140	1,855	1,888	2,160	2,160
	Combustion air flow	m³/min	42	52	71	78	80	80	85	117	133	145	145
	E.A(OUT - LET)	m²	1.8	1.8	2.1	2.4	2.4	2.6	2.6	3.9	3.9	4.5	4.5
	O.A(IN - LET)	m²	2.2	2.2	2.6	2.9	2.9	3.1	3.1	4.7	4.8	5.5	5.5

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



## Diesel Engine Generator

디젤 엔진 발전기

FPT

SET MODEL	GNC-100-FP	GNC-130-FP	GNC-150-FP	GNC-175-FP	GNC-200-FP	GNC-250-FP	GNC-300-FP	GNC-330-FP	GNC-360-FP	GNC-450-FP	GNC-470-FP	GNC-550-FP		
Generator	Stand-by Power	kW	100	130	150	175	200	250	310	330	370	450	470	550
		kVA	125	163	188	219	250	313	388	413	463	563	588	688
	Prime Power	kW	85	120	136	155	190	225	280	300	340	409	427	500
		kVA	106	150	170	194	238	281	350	375	425	511	534	625
	Frequency	Hz												60
	RPM	RPM												1,800
	Pole, Phase, Wire													4Pole, 3Phase, 4Wire
	Insulation Class													F,H CLASS
	Power Factor													0.8
	Exciting System													Brushless Self Exciting
Engine	Bearing													Single Ball Bearing
	Voltage	V												220/127, 380/220, 440/254, 3,300, 6,600
	Manufacturer													
	Model		NEF45 TM2A	NEF67 SM1	NEF67 TM3A	NEF67 TM4	NEF67 TE3PV	CURSOR87 TE3	CURSOR87 TE4	CURSOR13 TE2A	CURSOR13 TE3A	CURSOR13 TE6W	CURSOR13 TE7W	CURSOR16 TE1W
	Stand-by Power	HP	148	194	231	257	295	375	458	516	567	666	693	817
	Prime Power	HP	135	177	210	235	268	346	422	472	516	605	630	742
	RPM	RPM												
	No. of Cylinder	EA	4	6	6	6	6	6	6	6	6	6	6	6
	Bore x Stroke	mm	104 x 132	117 x 135	117 x 135	135 x 150	135 x 150	135 x 150	135 x 150	141 x 170				
	Displacement	cc	4,500	6,700	6,700	6,700	6,700	8,700	8,700	12,880	12,880	12,880	12,880	15,900
DIM	Compression Ratio		17.5 : 1	17.5 : 1	17.5 : 1	17.5 : 1	17.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1	16.5 : 1
	Engine type													
	Aspiration													
	Starting System													Electric motor by DC12 battery
	Governor													ECU Type
	Coolant Cap.(SET)	L	18.5	25.5	25.5	25.5	25.5	58	58	67	68	60	60	70
PAD	Lube Oil Capacity	L	12.8	17.2	17.2	17.2	17	28	28	35	35	38.1	38.1	38
	Fuel Consumption	L/hr	29	38.1	44.2	42.2	54.5	65.6	83.5	91	108.7	112	123.3	119.6
	Length	mm	2,100	2,500	2,650	2,650	2,650	3,000	3,000	3,200	3,200	3,200	3,200	3,200
D.A	Width	mm	790	930	930	930	930	972	972	1,132	1,300	1,223	1,223	1,122
	Height	mm	1,469	1,552	1,552	1,552	1,552	1,479	1,479	1,671	1,672	1,690	1,690	1,821
	Weight(G-Pac)	kg	1,034	1,240	1,379	1,391	1,457	1,981	2,256	2,376	2,598			
D.A	Length	mm	2500	3000	3500	3500	3500	3500	4000	4000	4000	4000	4000	4000
	Width	mm	1500	1500	1500	1500	1500	1500	1500	2000	2000	2000	2000	2000
	Height	mm	300	300	300	300	300	300	300	300	300	300	300	300
	Radiator air flow	m³/min	156	234	288	288	288	423	423	510	510	510	510	783
	Combustion air flow	m³/min	8.5	10.1	12.1	12.1	12.1	21.2	21.2	29.7	29.7	29.3	31	49.9
	E.A(OUT - LET)	m²	0.3	0.5	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.6
	O.A(IN - LET)	m²	0.4	0.6	0.7	0.7	0.7	1.1	1.1	1.3	1.3	1.3	1.3	2

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## MITSUBISHI

SET MODEL	GNC-800-MI	GNC-900-MI	GNC-1000-MI	GNC-1200-MI	GNC-1320-MI	GNC-1600-MI	GNC-1750-MI	GNC-2000-MI		
Generator	Stand-by Power	kW	800	900	1,000	1,200	1,320	1,600	1,750	2,000
		kVA	1,000	1,125	1,250	1,500	1,650	2,000	2,187	2,500
	Prime Power	kW	727	818	909	1,091	1,200	1,455	1,591	1,818
		kVA	909	1,023	1,136	1,364	1,500	1,818	1,989	2,273
	Frequency	Hz				60				
	RPM	RPM				1,800				
	Pole, Phase, Wire				4Pole, 3Phase, 4Wire					
	Insulation Class				F,H CLASS					
	Power Factor				0.8					
	Exciting System				Brushless Self Exciting					
	Bearing				Single Ball Bearing					
	Voltage	V			220/127, 380/220, 440/254, 3,300, 6,600					
Engine	Manufacturer				MITSUBISHI					
	Model	S12A2-PTA	S12A2-PTA2	S12H-PTA	S12R-PTA	S12R-PTA2	S16R-PTA	S16R-PTAH	S16R-PTAA2	
	Stand-by Power	HP	1,233	1,233	1,448	1,702	1,903	2,279	2,547	2,822
	Prime Power	HP	1,118	1,118	1,314	1,528	1,729	2,064	2,312	2,540
	RPM	RPM			1800					
	No. of Cylinder	EA	12	12	12	12	12	16	16	16
	Bore x Stroke	mm	150 x 160	150 x 160	150 x 175	170 x 180	170 x 180	170 x 180	170 x 180	170 x 180
	Displacement	cc	33,930	33,930	37,110	49,030	49,030	65,370	65,370	65,370
	Compression Ratio		15.3 : 1	15.3 : 1	14.0 : 1	14.0 : 1	13.5 : 1	14.0 : 1	14.0 : 1	14.0 : 1
	Engine type				4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)					
DIM	Aspiration				Turbocharged & Aftercooler					
	Starting System				Electric motor by DC24 battery					
	Governor				Electronic type					
	Coolant Cap.(SET)	L	215	235	285	305	305	350	445	413
	Lube Oil Capacity	L	120	120	200	180	180	230	230	230
	Fuel Consumption	L/hr	222	256.9	265	305	358	408	479	521
	Length	mm	3,825	4,000	4,175	4,553	4,750	5,400	5,300	5,600
	Width	mm	1,600	1,653	1,653	1,820	1,832	2,200	2,200	2,392
	Height	mm	1,992	2,322	2,330	2,389	2,772	2,631	2,532	3,326
	Weight	kg	5,935	6,694	7,758	9,536	9,828	12,160	13,463	13,800
PAD	Length	mm	4,500	4,500	4,800	5,500	5,500	6,000	6,000	6,500
	Width	mm	2,200	2,200	2,200	2,500	2,500	2,500	2,500	2,500
	Height	mm	400	400	400	400	400	500	500	500
D.A	Radiator air flow	m³/min	1,100	1,380	1,800	1,800	1,800	1,950	2,040	2,500
	Combustion air flow	m³/min	78	85	93	109	121	141	160	194
	E.A(OUT - LET)	m²	2.3	2.9	3.8	3.8	3.8	4.1	4.3	5.2
	O.A(IN - LET)	m²	2.8	3.5	4.5	4.5	4.6	5	5.2	6.4

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



# Diesel Engine Generator

디젤 엔진 발전기

**MTU**

SET MODEL	GNC-800-M	GNC-900-M	GNC-1000-M	GNC-1250-M	GNC-1600-M	GNC-1750-M	GNC-2100-M	GNC-2300-M	GNC-2500-M	GNC-2750-M	GNC-3250-M		
Generator	Stand-by Power	kW	800	900	1,000	1,250	1,600	1,750	2,100	2,300	2,500	2,750	3,250
		kVA	1,000	1,125	1,250	1,562	2,000	2,188	2,625	2,875	3,125	3,438	4,063
	Prime Power	kW	725	818	909	-	1,455	1,591	1,909	2,091	2,273	2,500	2,955
		kVA	906	1,023	1,136	-	1,819	1,989	2,386	2,614	2,841	3,125	3,694
	Frequency	Hz										60	
	RPM	RPM										1,800	
	Pole, Phase, Wire											4Pole, 3Phase, 4Wire	
	Insulation Class											F,H CLASS	
	Power Factor											0.8	
	Exciting System											Brushless Self Exciting	
Engine	Bearing											Single Ball Bearing, Double Ball Bearing	
	Voltage	V										220/127, 380/220, 440/254, 3,300, 6,600	
	Manufacturer											MTU	
	Model	12V2000G45	16V2000G45	16V2000G85	16V2000G86S	12V4000G74S	12V4000G84S	16V4000G74S	16V4000G84S	20V4000G64S	20V4000G74S	20V4000G94S	
	Stand-by Power	HP	1,193	1,354	1,495	1,839	2,328	2,561	3,058	3,353	3,674	4,036	4,680
	Prime Power	HP	980	1,118	1,314	-	2,038	2,328	2,709	3,058	3,339	3,674	4,036
	RPM	RPM										1800	
	No. of Cylinder	EA	12	16	16	16	12	12	16	16	20	20	20
	Bore x Stroke	mm	130 x 150	130 x 150	130 x 150	135 x 156	170 x 210	170 x 210					
	Displacement	cc	23,880	31,840	31,840	35,700	57,200	57,200	76,300	76,300	95,400	95,400	95,400
DIM	Compression Ratio		16.0 : 1	16.0 : 1	16.0 : 1	16.0 : 1	16.4 : 1	16.4 : 1	16.4 : 1	16.4 : 1	16.4 : 1	16.4 : 1	16.4 : 1
	Engine type												4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)
	Aspiration												Turbocharged & Aftercooler
	Starting System												Electric motor by DC24 battery
	Governor												Electronic type
	Coolant Cap.(SET)	L	90	110	110	188	160	160	175	175	205	205	205
	Lube Oil Capacity	L	77	102	102	114	260	260	300	300	390	390	390
	Fuel Consumption	L/hr	216	240	265	333	404	459	537	609	619	701	878
	Length	mm	3,900	4,500	4,500	4,550	5,400	5,400	7,341	7,341	8,149	8,149	8,149
	Width	mm	1,448	1,900	1,900	1,900	2,218	2,218	2,377	2,377	2,377	2,377	2,377
PAD	Height	mm	2,182	2,300	2,300	2,411	2,642	2,642	3,285	3,285	3,285	3,285	3,285
	Weight	kg	5,466	6,522	6,675	7,690	12,799	13,082	15,183	15,433	16,182	16,182	20,673
	Length	mm	4,500	5,000	5,000	5,200	6,000	6,000	7,200	7,200	8,000	8,000	8,000
D.A	Width	mm	2,000	2,500	2,500	2,300	2,500	2,500	2,700	2,700	2,700	2,700	2,700
	Height	mm	400	300	300	400	500	500	500	500	500	500	600
	Radiator air flow	m³/min	1,080	1,476	1,476	1,709	1,598	1,850	2,141	2,522	2,591	3,643	4,079
	Combustion air flow	m³/min	66	84	87	108	138	144	186	192	228	246	270
	E.A(OUT - LET)	m²	2.3	3.1	3.1	3.1	3.3	3.9	4.5	5.3	5.4	7.6	8.5
	O.A(IN - LET)	m²	2.7	3.7	3.7	3.8	4.1	4.7	5.5	6.5	6.7	9.3	10.4

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.



**MAN**

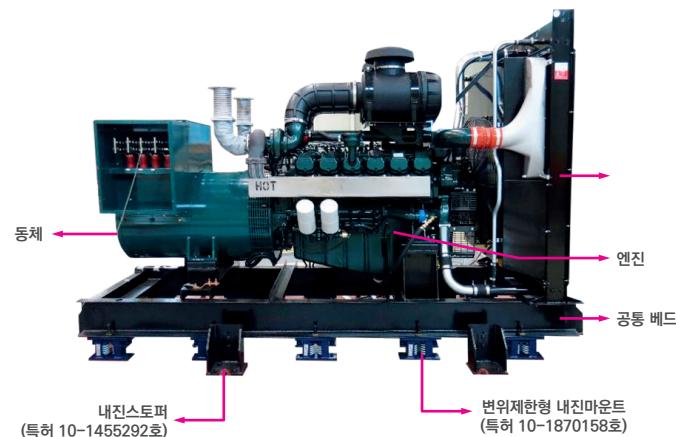
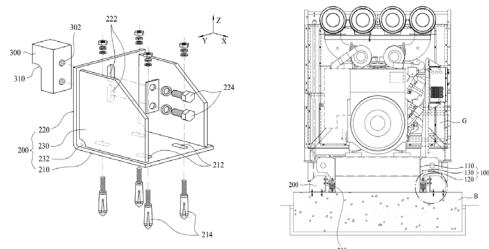
SET MODEL	GNC-400-MA	GNC-500-MA	GNC-595-MA	GNC-650-MA	GNC-700-MA	GNC-1000-MA
Stand-by Power	kW	405	525	595	650	730
	kVA	506	656	743	812	912
Prime Power	kW	368	477	540	590	663
	kVA	460	596	675	737	828
Frequency	Hz	60				
RPM	RPM	1,800				
Pole, Phase, Wire		4Pole, 3Phase, 4Wire				
Insulation Class		F,H CLASS				
Power Factor		0.8				
Exciting System		Brushless Self Exciting				
Bearing		Single Ball Bearing				
Voltage	V	220/127, 380/220, 440/254, 3,300, 6,600				
Manufacturer	MAN					
Model	D2676LE1/3	D2840LE201/3	D2840LE211/3	D2842LE201/3	D2842LE211/3	D2862LE221/3
Stand-by Power	HP	600	795	900	975	1,085
Prime Power	HP	510	700	765	840	945
RPM	RPM	1800				
No. of Cylinder	EA	6	10	10	12	12
Bore x Stroke	mm	126 x 166	128 x 142	128 x 142	128 x 142	128 x 157
Displacement	cc	12,420	18,270	18,270	21,920	21,920
Compression Ratio		15.5 : 1	15.5 : 1	15.5 : 1	15.5 : 1	17.0 : 1
Engine type	4-stroke, Internal combustion Diesel Engine (with radiator or heat exchanger)					
Aspiration	Turbocharged & Aftercooler					
Starting System	Electric motor by DC24 battery					
Governor	Electronic type					
Coolant Cap.(SET)	L	58	86	101	98	98
Lube Oil Capacity	L	40	30	30	32	32
Fuel Consumption	L/hr	89	124	139	151	169
DIM	Length	mm	3,250	3,150	3,150	3,620
	Width	mm	1,080	1,600	1,600	1,600
PAD	Height	mm	1,606	1,990	1,990	1,990
	Weight	kg	2,790	2,850	3,410	3,870
	Length	mm	3,700	3,700	3,700	4,100
D.A	Width	mm	1,400	2,000	2,000	2,000
	Height	mm	300	300	300	300
	Radiator air flow	m³/min	334	783	775	850
	Combustion air flow	m³/min	31	43	51	48
E.A(OUT - LET)	m²	0.7	1.6	1.6	1.8	1.6
O.A(IN - LET)	m²	0.9	2	2	2.1	2

※ All parameters are for reference only. Final technical data should refer to approval specification for each model.

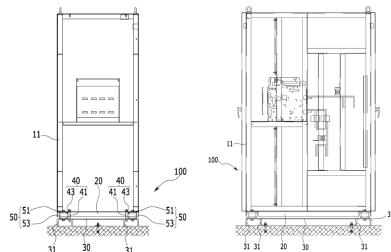
# Vibration-proof Diesel Generator

내진형 디젤 발전기

- PATENT NUMBER : 10-1455292
- 특허 번호 : 제 10-14555292호
- TITLE OF THE INVENTION : ANTI-VIBRATION STOPPER
- 발명의 명칭 : 내진 스토퍼



- APPLICATION NUMBER : 10-2016-0088892
- 출원 번호 : 10-2016-0088892
- TITLE OF THE INVENTION :
- ELECTRIC PANEL HAVING ASEISMATIC AND ANTI-VIBRATION ARRARATUS.
- 발명의 명칭 : 방진 및 내진 장치가 설치된 전기판넬



## 내진형 디젤발전기 모델 현황

번호	모델명	용량	비고
1	GNC-PDS50M-RR 외 14개	50kW~400kW	두산엔진(탑재형)
2	GNC-PDS50F-RR 외 20개	50kW~750kW	두산엔진(별치형)
3	GNC-PCU800L-RR 외 9개	800kW~2750kW	커민스엔진 저압
4	GNC-PCU800H-RR 외 9개	800kW~2750kW	커민스엔진 고압
5	GNC-PCA800L-RR 외 9개	800kW~2750kW	캐터필러 저압
6	GNC-PCA800H-RR 외 10개	800kW~2750kW	캐터필러 고압
7	GNC-PCS250M-RR 외 5개	250kW~400kW	스카니아엔진(탑재형)
8	GNC-PCS250F-RR 외 12개	250kW~750kW	스카니아엔진(별치형)
9	GNC-PPK800L-RR 외 5개	800kW~1500kW	퍼킨스엔진 저압
10	GNC-PPK800H-RR 외 5개	800kW~1500kW	퍼킨스엔진 고압
11	GNC-PMT900L-RR 외 9개	900kW~2750kW	MTU엔진 저압
12	GNC-PMT900H-RR 외 9개	900kW~2750kW	MTU엔진 고압
13	GNC-PMI800L-RR 외 8개	800kW~2000kW	미쯔비시엔진 저압
14	GNC-PMI800H-RR 외 8개	800kW~2000kW	미쯔비시엔진 고압

※ 조달 등록된 제품은 총 146개로 본사 영업팀으로 문의 주시기 바랍니다.

## 우수제품지정증서

지정번호\_2020109

제품명 : 내진형 디젤발전기  
업체명 : (주)지엔씨에너지  
대표자명 : 안병철  
지정기간 : 2020. 11. 10 ~ 2023. 11. 9  
지정범위 : 뒷면참조

위 제품을 조달사업에 관한 법률  
제26조 및 동법시행령 제30조에 따라  
위와 같이 우수제품으로 지정합니다

2020년 11월 10일



조달청



# Gas Engine Generator

가스 엔진 발전기



## Caterpillar Gas Engine

MODEL		CG260-16	CG260-16	CG260-12	CG170-20	CG170-16	CG170-12	CG132B-16	CG132B-12	CG132B-8
PERFORMANCE	Electrical power	kW	4,050	4,000	3,000	2,000	1,560	1,200	800	600
	Thermal output	kW	3,891	3,866	2,877	1,991	1,589	1,196	856	648
	Electrical efficiency	%	44.3	43.8	43.9	43.4	43	43.4	42.6	42.1
	Thermal efficiency	%	42.6	42.4	42.1	43.2	43.8	43.2	45.5	45.7
	Total efficiency	%	86.9	86.2	86	86.6	86.8	86.6	88.1	87.1
PHYSICAL DATA	Bore/stroke	mm	260/320	260/320	260/320	170/195	170/195	170/195	132/160	132/160
	Displacement	ℓ	271.8	271.8	203.9	88.5	70.8	53.1	35	26.3
	Speed	rpm	900	900	900	1,500	1,500	1,500	1,800	1,800
	Length	mm	9,420	9,420	8,000	7,470	6,640	5,970	4,200	3,830
	Width	mm	2,790	2,790	2,790	1,710	1,790	1,790	1,780	1,780
	Height	mm	3,390	3,390	3,390	2,190	2,210	2,210	2,150	2,150
	Dry weight genset	kg	52,400	52,400	40,650	19,800	14,900	13,000	7,700	5,720

MODEL		G3520H*	G3520C	G3516H*	G3516C	G3520C	G3512H*	G3516B	G3516	G3516
PERFORMANCE	Electrical power	kW	2,500	2,082	2,005	1,675	1,626	1,490	1,300	779
	Thermal output	kW	2,358	2,662	1,902	2,139	1,765	1,464	1,830	1,087
	Electrical efficiency	%	45	38.2	44.4	37.7	40.3	44.6	35.6	35
	Thermal efficiency	%	41	49.4	41.7	48.4	45.2	42	50.2	48.8
	Total efficiency	%	86	87.6	86.1	86.1	85.5	86.6	85.8	83.8
PHYSICAL DATA	Bore/stroke	mm	170 / 215	170 / 190	170 / 215	170 / 190	170 / 190	170 / 215	170 / 190	170 / 190
	Displacement	ℓ	97.5	86	78	69	86	59	69	69
	Speed	rpm	1,500	1,800	1,500	1,800	1,200	1,500	1,800	1,200
	Length	mm	7,668	6,367	7,395	5,518	6,312	6,777	4,203	4,913
	Width	mm	2,173	1,997	2,139	1,830	1,830	1,911	2,155	1,736
	Height	mm	2,473	2,340	2,402	2,340	2,340	2,328	2,419	1,940
	Dry weight genset	kg	24,800	17,215	18,315	13,748	17,339	15,740	12,618	12,549

MODEL		G3520	G3520C	G3516C	G3512	G3512	G3412C
PERFORMANCE	Electrical power	kW	2,500	2,000	1,500	1,000	750
	Thermal output	kW	1,679	2,662	2,005	1,246	1,025
	Electrical efficiency	%	37.8	37.3	36.1	35.1	33.4
	Thermal efficiency	%	45.8	49.4	48.3	49	49.9
	Total efficiency	%	83.2	86.7	84.4	84.1	83.3
PHYSICAL DATA	Bore/stroke	mm	170/215	170/190	170/215	170/190	170/190
	Displacement	ℓ	97.6	86	69	52	52
	Speed	rpm	1,800	1,800	1,800	1,800	1,800
	Length	mm	8,534	6,367	5,553	5,224	5,224
	Width	mm	3,168	1,997	1,828	2,286	2,286
	Height	mm	3,230	2,340	2,340	2,525	2,525
	Dry weight genset	kg	22,000	17,215	14,161	12,500	12,500



## HiMSEN Gas Fuel

Main Data				Dimensions							
Speed	720rpm		750rpm		Dimension(mm)				Dry Mass(ton)		
Frequency	60Hz		50Hz		A	B	C	H	Engine	GenSet	
H35G	6H35/40G	2,880	2,764	3,000	2,880	5,760	3,130	8,890	3,959	33.7	68.6
	7H35/40G	3,360	3,225	3,500	3,360	6,112	3,374	9,486	4,130	38.6	77.1
	8H35/40G	3,840	3,705	4,000	3,860	6,602	3,594	10,196	4,130	41.5	82.0
	9H35/40G	4,320	4,168	4,500	4,342	7,092	4,097	11,189	4,130	44.6	89.1
H35/GV	12H35/40GV	5,760	5,558	6,000	5,790	6,624	3,760	10,384	4,723	56.0	108.8
	14H35/40GV	6,720	6,518	7,000	6,790	7,295	3,860	11,155	4,723	63.3	121.3
	16H35/40GV	7,680	7,449	8,000	7,760	7,914	3,479	11,393	4,723	69.1	130.9
	18H35/40GV	8,640	8,380	9,000	8,730	8,585	3,859	12,444	4,794	76.3	141.2
	20H35/40GV	9,600	9,312	10,000	9,700	9,344	3,659	13,003	4,794	84.0	153.9
H54GV	12H54GVTSTC	16,800	16,380	16,800	16,380	12,511	4,638	17,149	7,994	294.0	381.0
	14H54GVTSTC	19,600	19,110	19,600	19,110	13,661	4,582	18,243	7,994	324.0	421.0
	16H54GVTSTC	22,400	21,840	22,400	21,840	15,086	4,757	19,843	8,383	361.1	467.0

## HiMSEN Gas Fuel

Main Data				Dimensions						Dry Mass(ton)				
Speed	720rpm		750rpm		Dimension(mm)				Dry Mass(ton)					
Frequency	60Hz		50Hz		Eng.(kW)	Gen.(kW)	Eng.(kW)	Gen.(kW)	A	B	C	H	Engine	GenSet
H27DF	6H27DF	1,710	1,624	1,860	1,767	4,414	2,262	6,676	2,835	21.2	30.8			
	7H27DF	1,995	1,905	2,170	2,072	4,794	2,262	7,056	3,241	23.5	34.9			
	8H27DF	2,280	2,177	2,480	2,368	5,311	2,340	7,651	3,371	25.1	40.5			
	9H27DF	2,565	2,462	2,790	2,678	5,691	2,490	8,181	3,371	27.2	46.0			
H35DF	6H35/40G	2,880	2,764	2,880	2,764	5,760	3,130	8,890	4,367	34.7	69.6			
	7H35/40G	3,360	3,225	3,360	3,225	6,112	3,374	9,486	4,583	39.6	78.1			
	8H35/40G	3,840	3,705	3,840	3,705	6,602	3,594	10,196	4,583	42.5	83.0			
	9H35/40G	4,320	4,168	4,320	4,168	7,092	4,097	11,189	4,583	45.6	90.1			
H35DFV	12H35DFV	5,760	5,558	5,760	5,558	6,624	3,760	10,384	4,723	58.0	110.8			
	14H35DFV	6,720	6,518	6,720	6,518	7,295	3,860	11,155	4,723	65.3	123.3			
	16H35DFV	7,680	7,449	7,680	7,449	7,914	3,479	11,393	4,723	71.1	132.9			
	18H35DFV	8,640	8,380	8,640	8,380	8,585	3,859	12,444	4,794	78.3	143.2			
	20H35DFV	9,600	9,312	9,600	9,312	9,344	3,659	13,003	4,794	86.0	155.9			
H54DFV	12H54DFV TSTC	16,800	16,380	16,800	16,380	12,511	4,638	17,149	7,994	303.0	391.0			
	14H54DFV TSTC	19,600	19,110	19,600	19,110	13,661	4,582	18,243	7,994	335.0	431.0			
	16H54DFV TSTC	22,400	21,840	22,400	21,840	15,086	4,757	19,843	8,383	373.0	480.0			

# Gas Turbine Generator

가스 터빈 발전기



## NIIGATA

	SET MODEL	CNT-500ERA	CNT-625ERA	CNT-750ER	CNT-1000ER	CNT-1250E	CNT-1500E	CNT-2000E				
Generator	Rated output	kVA	500	625	750	1,000	1,250	1,500	2,000			
		kW	400	500	600	800	1,000	1,200	1,600			
	Voltage	V	200~6600									
	Frequency	Hz	50/60									
	Rotating Speed	RPM	1500/1800									
	Pole, Phase	4Pole, 3Phase										
	Power Factor	0.8										
	Excitation	AC-excitation / brushless excitation										
	Start-up time	within 40 seconds										
	Load input allowable	100% (resistance load)										
	Instant. frequency fluctuation variability ratio	± within 4% (100% load input and shutdown)										
	Steady frequency fluctuation variability ratio	± within 0.3%										
	Stabilization time	within 8 sec										
	Noise (Machine side)	dB(A)	approx. 85									
	Noise (Exhaust silencer)	dB(A)	approx. 90									
Gas turbine	Type	simple open cycle single-shaft type										
			RGT5	RGT8	NGT2A-S	NGTSB-S						
	Compressor	1 stage centrifugal type		2 stage centrifugal type								
	Turbine	1 stage radial type		3 stage axial type								
	Combustor	Single can type										
	Reduction gear	Parallelism gear mechanism				Planetary gear mechanism						
	Governor	Electronic type										
	Rated Output	PS	600	750	900	1,200	1,500	1,800	2,400			
		kW	441	552	662	883	1,103	1,324	1,765			
	Main shaft rotating	RPM	28,800		26,500		22,000					
	Output shaft rotating speed	RPM	1500/1800									
DIM	Fuel	Diesel oil										
	Fuel Consumption	L/Hr	293	340	384	429	516	561	683			
	Lube Oil Capacity	L	60		80		65		90			
	Length	mm	4,900	4,900	5,350	5,350	6,000	6,000	6,500			
PAD	Width	mm	1,450	1,450	1,450	1,570	1,630	1,630	1,600			
	Height	mm	2,800	2,800	3,100	3,100	3,400	3,400	3,500			
	Weight	kg	7,075	7,475	9,690	10,275	10,800	11,600	13,600			
D.A	Length	mm	5,500	5,500	6,000	6,000	6,600	6,600	7,200			
	Width	mm	2,000	2,000	2,000	2,000	2,200	2,200	2,200			
	Height	mm	300	300	400	400	400	400	400			
	Total Intake Air Flow	m³/min	404	416	574	600	728	751	885			
	Total Exhaust Air Flow	m³/min	159	171	234	260	276	299	411			
	O.A (IN-LET)	m²	1.0	1.0	1.4	1.4	1.7	1.8	2.1			
	E.A (OUT-LET)	m²	0.4	0.4	0.6	0.6	0.7	0.7	1.0			

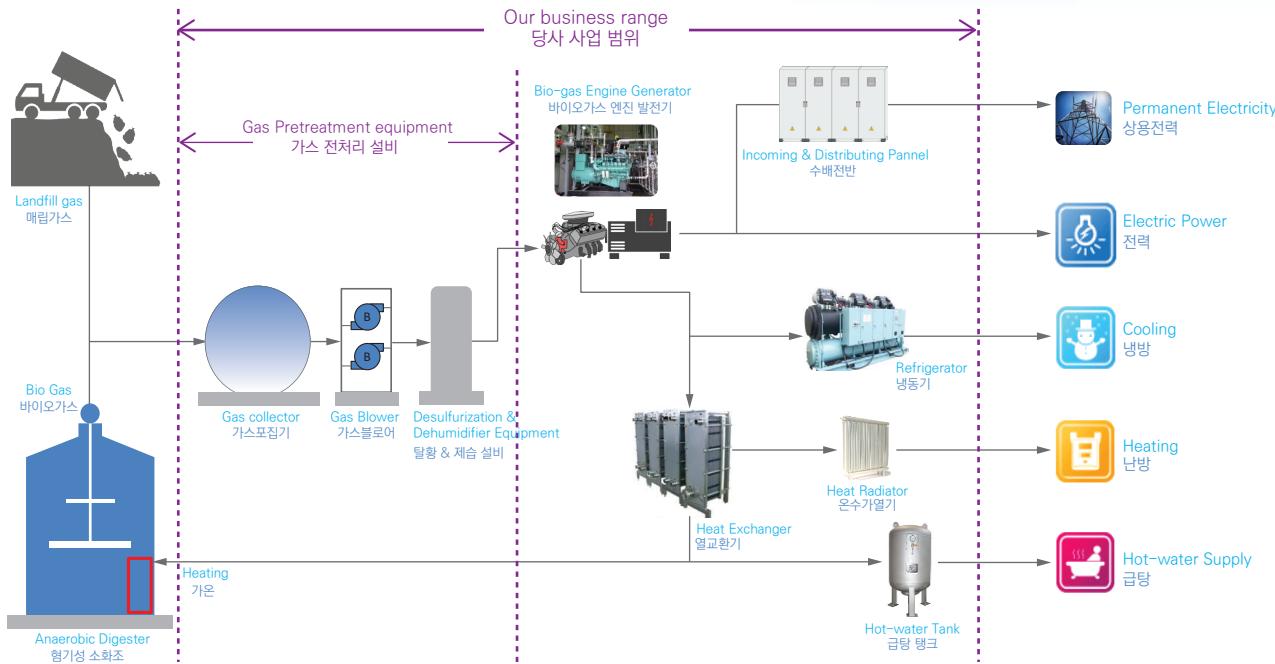
## NIIGATA



	SET MODEL	CNT-2500E	CNT-3000EA	CNT-3250E	CNT-4000E	CNT-5000EN	CNT-6000EN	CNT-6500EN	
Generator	Rated output	kVA	2,500	3,000	3,250	4,000	5,000	6,000	6,500
		kW	2,000	2,400	2,600	3,200	4,000	4,800	5,200
	Voltage	V	380 ~ 6600		3300 ~ 6600				
	Frequency	Hz	50/60						
	Rotating Speed	RPM	1500/1800						
	Pole, Phase	4Pole, 3Phase							
	Power Factor	0.8							
	Excitation	AC-excitation / brushless excitation							
	Start-up time	within 40 seconds							
	Load input allowable	100% (resistance load)							
	Instant. frequency fluctuation variability ratio	± within 4% (100% load input and shutdown)							
	Steady frequency fluctuation variability ratio	± within 0.3%							
	Stabilization time	within 8 sec							
	Noise (Machine side)	dB(A)	approx. 85						
	Noise (Exhaust silencer)	dB(A)	approx. 90						
Gas turbine	Type	simple open cycle single-shaft type							
		NGT3A-S	NGT3B-S	NGT3B-S/H	NGT2B-T	NGT3A-T	NGT3B-T	NGT3B-T/H	
	Compressor	2 stage centrifugal type							
	Turbine	3 stage axial type							
	Combustor	Single can type							
	Reduction gear	Planetary gear mechanism							
	Governor	Electronic type							
	Rated Output	PS	3,000	3,600	3,900	4,800	6,000	7,200	7,800
		kW	2,207	2,648	2,868	3,530	4,413	5,296	5,736
	Main shaft rotating	RPM	17,800		22,000	17,800			
	Output shaft rotating speed	RPM	1500/1800						
	Fuel	Diesel oil							
	Fuel Consumption	L/Hr	957	1,075	1,201	1,365	1,835	2,151	2,402
	Lube Oil Capacity	L	150			182	250		
DIM	Length	mm	7,100	7,300	7,400	7,350	8,340	8,950	9,050
	Width	mm	2,140	2,140	2,140	2,500	2,780	2,780	2,780
	Height	mm	4,100	4,100	4,100	4,000	5,100	5,300	5,300
PAD	Weight	kg	19,690	20,160	22,240	26,910	36,520	39,060	44,780
	Length	mm	7,700	7,900	8,000	8,000	9,400	9,600	9,600
	Width	mm	2,800	2,800	2,800	3,100	3,400	3,400	3,400
D.A	Height	mm	400	400	500	500	500	600	600
	Total Intake Air Flow	m³/min	1,213	1,270	1,359	1,666	2,263	2,435	2,658
	Total Exhaust Air Flow	m³/min	521	578	593	719	880	1,052	1,126
	O.A (IN-LET)	m²	2.9	3.0	3.2	4.0	5.4	5.8	6.3
	E.A (OUT-LET)	m²	1.2	1.4	1.4	1.7	2.1	2.5	2.7

# Eco-friendly Generation

친환경 발전

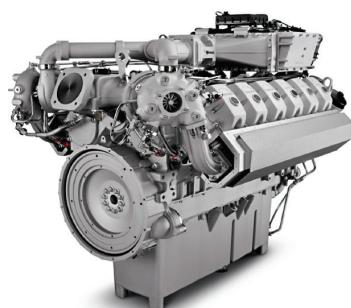


## RECORDS 실적

발주처 Client	현장 Site	엔진 Engine	용량(kW) Capacity(kW)	수량 Q'ty	비고 Remarks
수도권매립지 관리공사 Sudokwon Landfill Site Management Corporation	수도권매립지 Metropolitan-landfill	Doosan(gas engine)	400	2	국내최초 국산엔진 매립가스발전 The first Landfill gas power generation in Korea
수도권매립지 관리공사 Sudokwon Landfill Site Management Corporation	수도권매립지 Metropolitan-landfill	Doosan(gas engine)	400	3	바이오가스 발전 Bio-gas power generation
수도권매립지 관리공사 Sudokwon Landfill Site Management Corporation	수도권매립지 Metropolitan-landfill	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation
동서발전 KOREA EAST WEST POWER Co., Ltd.	수도권매립지 Metropolitan-landfill	Doosan(gas turbine)	5,000	1	바이오가스 발전 Bio-gas power generation
에코에너지홀딩스 Eco Energy Holdings Co., Ltd.	마산, 구미 매립지 Masan, Gumi-landfill	Doosan(gas engine)	450	3	매립가스발전 Landfill-gas power generation
한국기계연구원 Korea Institute of Machinery & materials	대전 신대동 Daejeon-city, Sindae-dong	Doosan(gas engine)	100	1	매립가스발전 Landfill-gas power generation
벽산엔지니어링 ByuckSan Engineering	청주음폐수처리장 Cheongju-Waste water treatment plant	Doosan(gas engine)	360	2	바이오가스 발전 Bio-gas power generation
벽산엔지니어링 ByuckSan Engineering	청주음폐수처리장 Cheongju-Waste water treatment plant	Doosan(gas engine)	150	1	바이오가스 발전 Bio-gas power generation
청주시 Cheong-Ju	청주매립지 Cheongju-landfill	Doosan(gas engine)	400	2	매립가스 발전 Landfill Gas power generation
청주시 Cheong-Ju	청주친환경에너지타운 Cheongju-eco friendly energy town	Man D&T(gas engine)	500	2	바이오가스 발전 Bio-gas power generation
동두천시 DongDuCheon	동두천 하수종말처리장 Dongducheon-disposal plant of sewage	Doosan(gas engine)	300	2	바이오가스 발전 Bio-gas power generation
동두천시 DongDuCheon	동두천 하수종말처리장 Dongducheon-disposal plant of sewage	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation
김해시 Gimhae	김해 읍폐수처리장 Gimhae-Waste water treatment plant	Man D&T(gas engine)	500	2	바이오가스 발전 Bio-gas power generation
김해시 Gimhae	장유, 화목 하수처리장 Jangyu, Hwamok-sewage treatment plant	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation
한국환경공단(이천) Korea Environment Corporation (Icheon)	이천 바이오가스 발전소 Icheon Biogas Plant	Man D&T(gas engine)	250	1	바이오가스 발전 Bio-gas power generation
순천시 Suncheon	순천 생활폐기물매립장 Suncheon-household waste site	Doosan(gas engine)	300	1	매립가스 발전 Landfill Gas power generation
여수시 Yeosu	여수 읍폐수처리장 Yeosu-disposal plant of sewage	Doosan(gas engine)	300	1	바이오가스 발전 Bio-gas power generation
서산시 Seosan	서산 하수종말처리장 Seosan-disposal plant of sewage	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation

## RECORDS 실적

발주처 Client	현장 Site	엔진 Engine	용량(kW) Capacity(kW)	수량 Q'ty	비고 Remarks
속초시 SokCho	속초 바이오가스발전소 SokCho Biogas Plant	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation
속초시 Sok Cho	속초 바이오가스발전소 SokCho Biogas Plant	Doosan(gas engine)	450	1	바이오가스 발전 Bio-gas power generation
화성시 Hwaseong	화성 베이오가스발전소 Hwaseong Biogas Plant	Man D&T(gas engine)	500	1	바이오가스 발전 Bio-gas power generation
인천환경공단 Environmental Corporation of Incheon	인천 바이오가스발전소 Incheon Biogas Plant	Doosan(gas engine)	250	1	바이오가스 발전 Bio-gas power generation



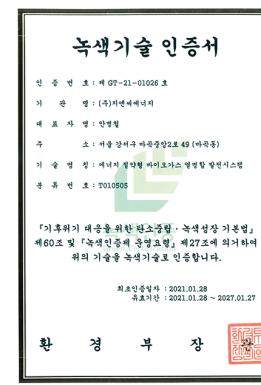
Bare Engine(MAN Diesel & Turbo)



Bare Engine(Doosan Infracore)

### Benefits at a glance

- Proven and fully developed
- Flexibility and individuality
- Robust and compact
- Efficient
- Low emissions



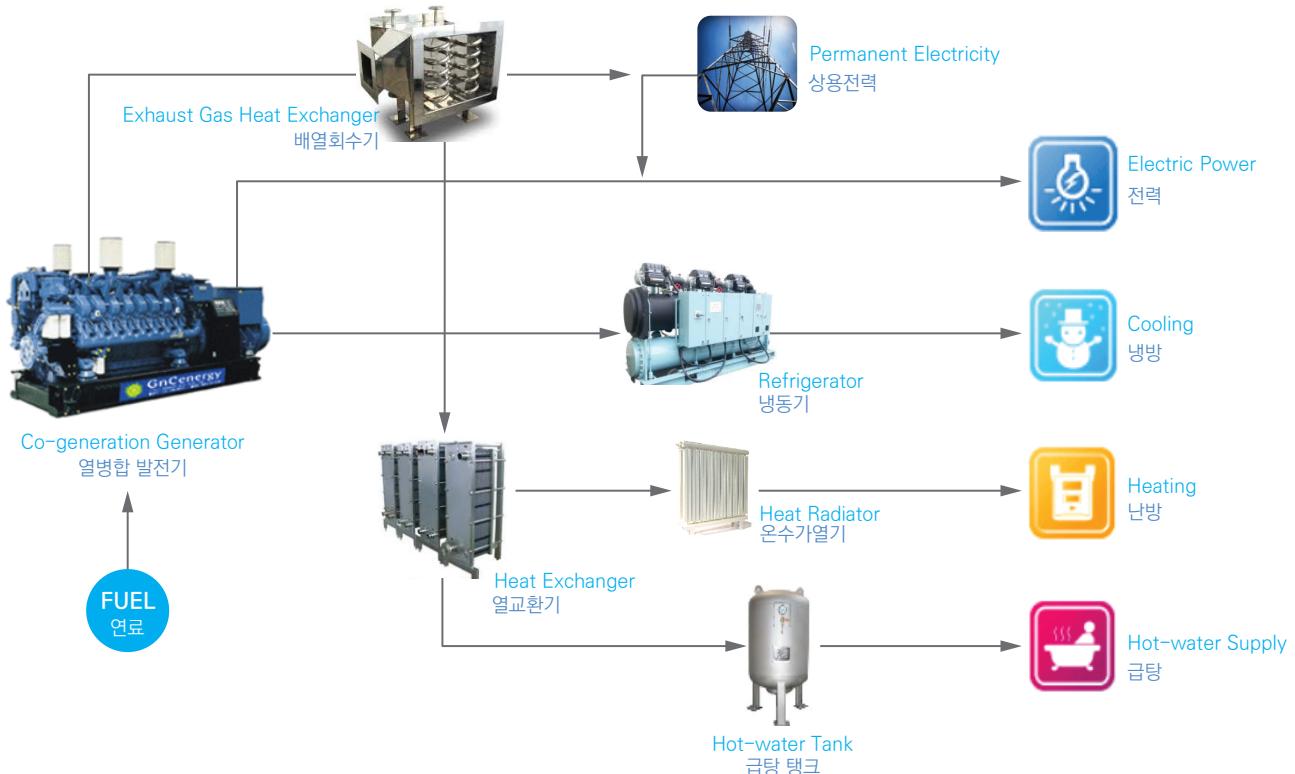
### Model Line-up

Model	Bare Engine	Cylinder	Displacement	Bore x Stroke (mm)	Output(kW)	
					@1800rpm(60Hz)	@1500rpm(50Hz)
BG075D	GE06TI	IN-6	5.8	102 x 118	90	75
BG125D	GE08TI	IN-6	8.1	111 x 139	125	105
BG180D	GE12TI	IN-6	11.1	123 x 155	180	150
BG200D	GV158TI	V-8	14.6	128 x 142	200	170
BG300D	GV180TI	V-10	18.3	128 x 142	300	250
BG400D	GV222TI	V-12	21.9	128 x 142	360	300
BG500M	E3262-LE202	V-12	25.8	132 x 157	530	450



# Co-generation EPC

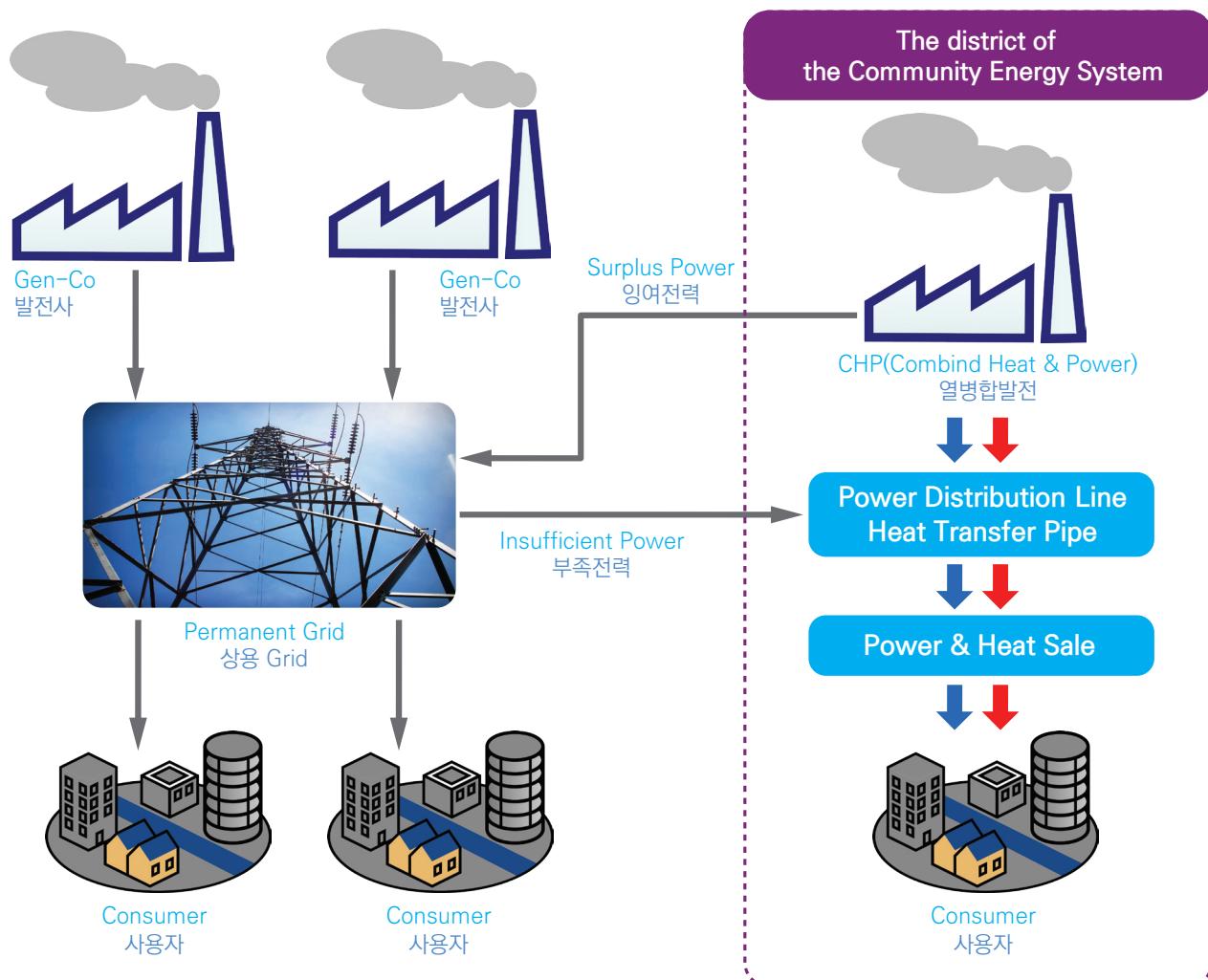
열병합 발전 EPC



## Co – generation EPC Scope 열병합 발전 EPC 범위

- Engine Generator  
엔진 발전기
- Heat Exchanger  
열교환기
- Auxiliaries  
부대품
- Synchro and Control Pannel  
병렬 및 제어 패널
- Incoming and Distributing Pannel  
수배전반





**Central Post Office**

중앙우체국

Gas-turbine Co-Generation,  
for the first time in Korea  
국내 최초 가스터빈 열병합  
(1,040kW x 2set)



**Time Square(K-project)**

타임스퀘어(K-프로젝트)

Gas-engine Co-Generation  
가스엔진 열병합  
(1,635kW x 3set)



**Sin-jeong CES**

신정 CES

Gas-engine Co-Generation  
가스엔진 열병합  
(3,000kW x 2set)



**Cheonan Cheongsu CES**

천안청수 CES

Gas-engine Co-Generation  
가스엔진 열병합  
(8,430kW x 3set)

# Supply Scope

## 공급 범위

### Standard 표준

- Generator set(w/ base frame & radiator)
- Silencer(industrial type)
- Flexible connector
- Battery(lead-acid type)
- Filters(Fuel, Lube oil etc. spare portion)

발전기세트(베이스프레임 및 라디에터 포함)



소음기(산업용)

플렉시블 연결자

배터리(연축전지)



필터류(연료, 오일 등 예비품분)

### Options 선택

- Fuel oil Daily Tank
  - Free standing type
  - Mounted base type
- Exhaust reduction system
- Enclosure
  - Weather-proof
  - Weather&sound-proof

연료탱크



자립형  탑재형

배기가스 저감장치



엔클루저

옥외형  옥외 방음형



### Control panel 운전반

- Mounted Engine Instrument Panel
- Mounted Generator set Panel
- Free-standing Generator set Panel

탑재 엔진 판넬



탑재 엔진 판넬 (기계식 | 전자식)

탑재 발전기 판넬



탑재 발전기 판넬 (기계식 | 전자식)

별치 발전기 판넬



별치 발전기 판넬

# Installation Information

설치 정보

## Gen. Foundation 발전기 기초대

If a concrete foundation is required, minimum design guidelines include :

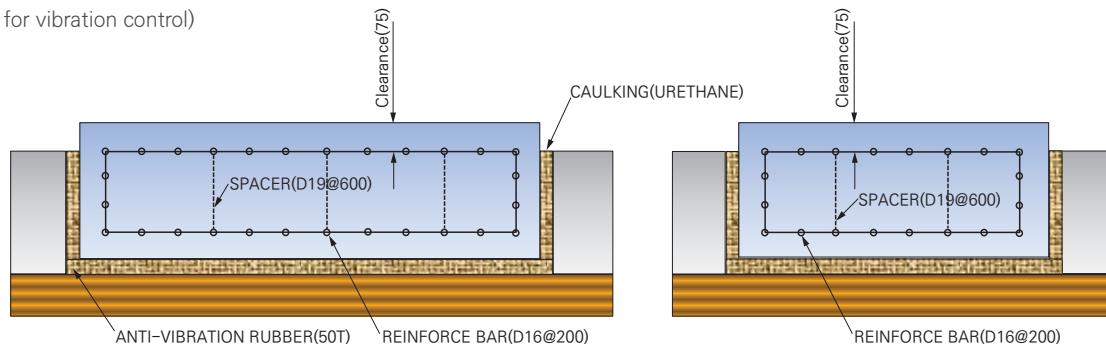
- Strength must support wet weight of units plus dynamic loads.
- Outside dimensions exceed that of the generator set a minimum of 300mm(1ft) on all sides.
- Depth sufficient to attain a minimum weight equal to generator set wet weight (only if large mass, ie., inertia block, is specified for vibration control)

$$FD = W / (D \times B \times L)$$

FD = foundation depth, m(ft)  
W = total wet weight of generator set, kg(lb)  
D = density of concrete, kg/m<sup>3</sup>(lb/ft<sup>3</sup>)  
note : use 2403 for metric units and 150 for English units.  
B = foundation width, m(ft)  
L = foundation length, m(ft)

콘크리트 기초대가 사용될 경우, 최소 설계 기준은 다음과 같다 :

- 강도는 유니트의 습중량에 동하중을 더한 하중을 견뎌야 한다.
- 외곽 치수는 발전기의 모든 외곽에서 300mm(1ft)를 벗어나야 한다.
- 깊이는 발전기세트의 습중량과 최소 동등 이상의 중량이 되어야 한다.



## Miscellaneous Inform. 기타 정보

CAPACITY(kW)	EXHAUST GAS PIPE SIZE	SPRING ISOLATER	STARTING BATTERY
3,000 kW Class	20 INCH(500A)	2,000 kg x 16EA	DC24V, 1200AH (DC12V – 200AH x 6EA)
2,500 kW Class	20 INCH(500A)	2,000 kg x 14EA	
2,250 kW Class	16 INCH(400A)	2,000 kg x 12EA	
2,000 kW Class	16 INCH(400A)	2,000 kg x 12EA	
1,750 kW Class	16 INCH(400A)	2,000 kg x 12EA	
1,500 kW Class	14 INCH(350A)	2,000 kg x 10EA	DC24V, 800AH (DC12V – 200AH x 4EA)
1,250 kW Class	12 INCH(300A)	1,500 kg x 10EA	
1,000 kW Class	10 INCH(250A)	1,500 kg x 10EA	
900 kW Class	10 INCH(250A)	1,000 kg x 10EA	
750 kW Class	8 INCH(200A)	750 kg x 10EA	
650 kW Class	8 INCH(200A)	750 kg x 10EA	
500 kW Class	6 INCH(150A)	500 kg x 10EA	DC24V, 400AH (DC12V – 200AH x 2EA)
400 kW Class	6 INCH(150A)	500 kg x 10EA	
300 kW Class	5 INCH(125A)	500 kg x 6EA	
200 kW Class	4 INCH(100A)	500 kg x 6EA	DC24V, 300AH (DC12V – 150AH x 2EA)
100 kW Class	3 INCH( 80A)	500 kg x 6EA	

# Generator Set Power Ratings

## 발전기 출력 정격

### 비상 출력(ESP)

#### 정격 정의 : 변동 부하, 연간 200시간 제한

이 정격은 정상적으로 이용 가능한 전기 공급망 또는 그리드(grid)가 고장나는 장소에 부하가 변동하며 운전 시간이 연간 200시간 미만일 경우의 비상출력 적용으로 사용되는 발전기에 사용 가능하다.

### 상용 출력 (PRP)

#### 정격 정의 : 변동 부하, 무제한 운전 시간

이 정격은 공급망이나 그리드 이용이 가능하지 못한 장소에 일년 365일, 하루 24시간 전력을 공급하기 위하여 사용되는 발전기세트에 사용 가능하다. 평균 출력은 상용출력(PRП)의 70%이다. 12시간 중 최대 1시간 기술적인 목적으로 10% 과부하가 가능하다. 과부하 운전은 연간 50시간을 초과해서는 안된다.

예 : 도서지역이나 고립지에 위치한 발전기세트

### 연속 출력 (COP)

#### 정격 정의 : 일정 부하, 무제한 운전 시간

이 정격은 모선 즉, 국가 전력 공급망(network) 또는 그리드(grid)와 병렬되는 발전기세트로 일년 365일, 하루 24시간 100%로 운전되며 잉여 전력은 그리드(grid)로 내보내어지는 발전기세트에 적용 가능하다.

예 : 열병합 발전기세트(Combined Heat & Power (CHP))

↳ 상기 정격은 ISO8528 및 ISO3046에 따릅니다.

### EMERGENCY STANDBY POWER (ESP)

#### Rating definition: variable load : limited to 200 hours per year

This rating is appropriate for a generator set used in standby power applications where the normally available electrical supply network or grid fails and where it has been determined that the load will be varying and the running hours will be less than 200 hours a year.

### PRIME POWER (PRP)

#### Rating definition: variable load : unlimited running hours

This rating is appropriate for a generator set used to supply power 24 hours a day, 365 days a year where there is no supply network or grid available. Average power output is 70% of the prime power rating. With 10% overload capability for technical purposes for a maximum of one hour in twelve. Overload operation cannot exceed 50 hours per year.

Example: Generator set located on an off-shore island or in the middle of a desert.

### CONTINUOUS POWER (COP)

#### Rating definition: constant load : unlimited running hours

This rating is appropriate for a generator set paralleled with an infinite bus e.g. a national electrical supply network or grid where the generator set is run at 100% load, 24 hours a day, 365 days a year and any surplus power is exported into the grid.

Example: Combined Heat & Power (CHP) generator set.

↳ Ratings are in accordance with ISO8528, ISO3046

## Unit Conversions

$$1\text{Hp} = 0.746\text{kW}$$

$$1\text{PS} = 0.735\text{kW}$$

$$1\text{HP} = 1.0138\text{PS}$$

$$1\text{PS} = 0.986\text{HP}$$

$$1\text{CMM} = 1\text{m}^3/\text{min}$$

$$1\text{CFM} = 35.3\text{m}^3/\text{min}$$

$$1\text{kWh} = 860\text{kcal}$$

$$1\text{kWh} = 3,412\text{BTU}$$

$$1\text{kWh} = 3,600 \text{ KJ}$$

$$1\text{kgf/m}^3 = 98\text{kPa}$$

$$1\text{g/PS-H} = 1.36\text{g/kW-h}$$

$$1\text{Liter} = 0.833\text{kg(경유)}$$



지엔씨에너지

## 디젤엔진 비상발전기 30년 사용을 위한 유지관리 프로그램

### 비상발전기 유지보수 왜 필요할까요?

“ 전원이 안정적인 대한민국에서의 비상발전기는 다른 전기 장비(UPS, 배전반 등)에 비해 관리가 소홀합니다. 이로 인해 방치되는 비상발전기는 정작 필요시(화재, 정전) 제 기능을 하지 못하는 상황이 발생할 수 있으며 고장 수리 시 예상치 못한 큰 지출이 필요합니다.”

#### 디젤엔진 발전기에 대한 오해

##### 1. 사용하지 않는 비상발전기는 소모품 교체 및 유지보수가 필요 없다.

디젤엔진 발전기는 자동차와 마찬가지로 운전 (운행) 하지 않더라도 기본 소모품에 대한 교체가 필요합니다. (배터리, 냉각수, 엔진오일, 필터류 등) 또한 소모품 교체와 함께 전문가의 점검이 필요합니다. (소음 및 진동, 매연 상태, 냉각계통 상태 등)

##### 2. 자체적으로 기본 소모품 교체 및 시운전을 진행하며 관리 중으로 전문가의 점검은 필요하지 않다.

비상발전기의 소모품 교체와 시운전을 통하여 관리를 하고 있다 하더라도 전문가의 점검은 반드시 필요합니다. 디젤엔진 발전기의 기본 소모품 외에도 연료 상태 점검, 라디에이터 오염 상태 점검, 운전반 점검, 볼트 조임 상태 점검 등 전문기가 필요한 점검 항목이 있으며, 이를 소홀히 할 시 발전기 기동 불능 및 안전사고를 초래 할 수 있습니다.

#### 디젤엔진 발전기 방치로 인한 사고사례



사례 1 : 냉각수방치로 인한 히터 및 라디에이터 손상교체



사례 2 : 펜벨트 점검 미흡으로 벨트 풀림으로 인한 파손, 탈락



사례 3 : 진동으로 인한 볼트 풀림으로 쇼트, 먼지 방지로 인한 화재 발생



지엔씨에너지는 30년 전통의 국내 비상발전기 업체로써 최고의 기술력과 서비스정신으로 고객과 함께 성장하여 인류에 공헌하는 기업입니다.

문의전화 :

지엔씨에너지 CS본부 / CS 영업팀 : 직통전화 02-2164-7200 (내선번호 2)

# 소모품교체, 유지보수의 종류 및 방법

## 기본 소모품 교체 품목 및 교환주기

교체품 목	교환주기	교체품 목	교환주기
1 냉각수	1,000시간 또는 3년	6 엔진오일필터	250시간 또는 3년
2 RADIATOR 청소	1,000시간 또는 10년	7 엔진오일	250시간 또는 3년
3 RADIATORFANBELT	500시간 또는 10년	8 에어필터	250시간 또는 3년
4 연료필터	250시간 또는 3년	9 배터리	500시간 또는 3년
5 냉각수히터및호스	250시간 또는 3년	10 배터리충전기	고장시교환

## 정기 유지보수 점검의 종류 및 방법

점검 내용	비고	점검 내용	비고	점검 내용	비고
엔진점검 : 윤활유 레벨 점검	상태점검	엔진의 손상, 누설, 조임의 풀림, 벨트의 마모여부에 대한 육안 검사 및 비정상적인 소음 점검	상태점검	일간, 월간 점검 항목(24가지) 진행	
엔진점검 : 냉각수 레벨 점검	상태점검			팬 허브 점검	상태점검
연료 레벨 점검	상태점검			드라이브 풀리 점검	상태점검
연료 누유 점검	상태점검	냉각수 호스 및 각종 라인 점검	상태점검	냉각수 펌프 점검	시운전
엔진오일 누유 점검	상태점검	냉각수 레벨 점검	상태점검	에어필터 크랭크케이스 브리더 청소 또는 엘리먼트교체	상태점검 청소
냉각수 누수 점검	상태점검	부동액 및 부식방지제 농도 점검	상태점검	가버너 점검	시운전
냉각 계통 검사	상태점검	팬 벨트 상태 및 장력 점검	상태점검	연료라인 연결 및 부식상태 점검	상태점검
에어 크리너 오염상태 점검	상태점검	에어필터 공기 저항 점검	상태점검	연료탱크내 침전물 점검	상태점검
엔진 시동 및 비정상 소음 점검	상태점검	소음기 침전물 및 배수 점검	상태점검	엔진 및 발전기 보호장치 작동 점검	시운전
냉각수 히터 운전상태 점검	상태점검	충전계통 누전 점검	상태점검	권선 및 전기적 결선상태 점검	상태점검
시동용 배터리 점검 (전압, 충전상태)	상태점검	발전기 냉각용 금,배기 저항 점검	상태점검	베어링 구리스 주입 및 점검	상태점검 주입
배터리 충전기 점검	상태점검	무부하 시운전 점검 (전압, 전류, 주파수, 병렬속도 등)	시운전	계기류 정상 동작 상태 점검	시운전
엔진 판넬 점검 (선택스위치, 회로전원 등)	상태점검			발전기 부하 시운전	로드뱅크 필요
연료탱크와 연료 필터 및 유수 분리기의 침전물, 수분점검 및 배출	상태점검				



소모품 교체 및 유지보수  
서비스 진행  
최상의 컨디션 유지

최대 30년 최고성능 유지

지엔씨에너지와  
함께하는  
안정적인 “30년 운영”

# Company Culture

기업 문화

## 꿈을 키우는 지엔씨에너지

### 소외계층 후원과 자원봉사 참여

1993년 설립 이후, 갈 곳 없는 독거노인, 치매노인 및 장애인 등 소외계층을 후원하며, 매년 전국 각지의 자원봉사에 적극 참여하고 있습니다.



### 첨단 기술 개발 및 유능한 인재 개발 육성 사업

We 우리사주 제도를 통한 주인의식 고취와, 꿈과 희망을 공유하는 기업을 지향하며, 끊임없는 연구 개발 및 교육프로그램을 통한 인재 개발 육성에 투자를 아끼지 않고 있습니다.

## GnCenergy growing the dreams

### Participation in voluntary support and support for the underprivileged

Since its foundation in 1993, we have been supporting the underprivileged, including the elderly living alone, the elderly with dementia and the disabled, and actively participating in volunteer activities around the country every year.

### High-tech development and talented human resource development business

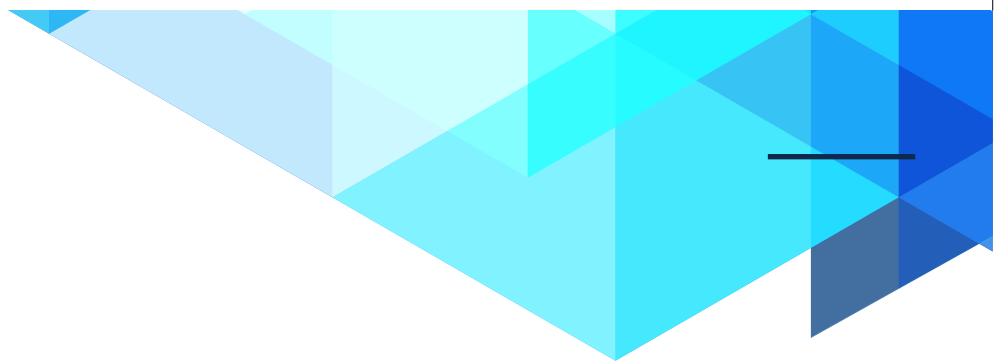
We aim to become a company that shares our dreams and hopes with our employees through our employee stock ownership system. We are investing in endless research and development, training and development of human resources.

Head Office

서울특별시 강서구 마곡중앙2로 49  
49 Magokjungang2-ro, Gangseo-gu, Seoul,  
Republic of Korea  
Tel. 02-2164-7200 Fax. 02-2164-7201

Seok-mun  
Plant

충남 당진시 석문면 산단 4로 20  
(통정리 1414, 석문국가산업단지내)  
20, Sandan 4-ro, Seokmun-myeon, Dangjin-si,  
Chungnam-do, Republic of Korea  
Tel: 041-358-9400 Fax: 041-358-9404



# Memo

메모