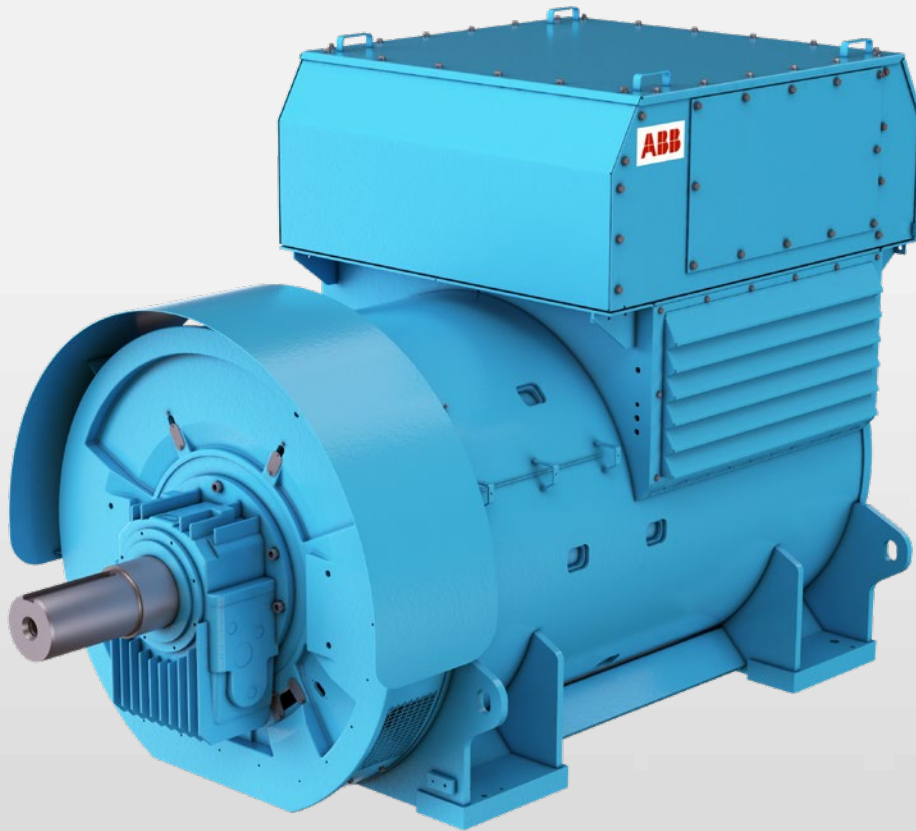


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CATALOG

# Synchronous HV compact generators for diesel and gas engines

0.9 to 7.8 MVA/3.3 - 13.8 kV/4 - 10 poles

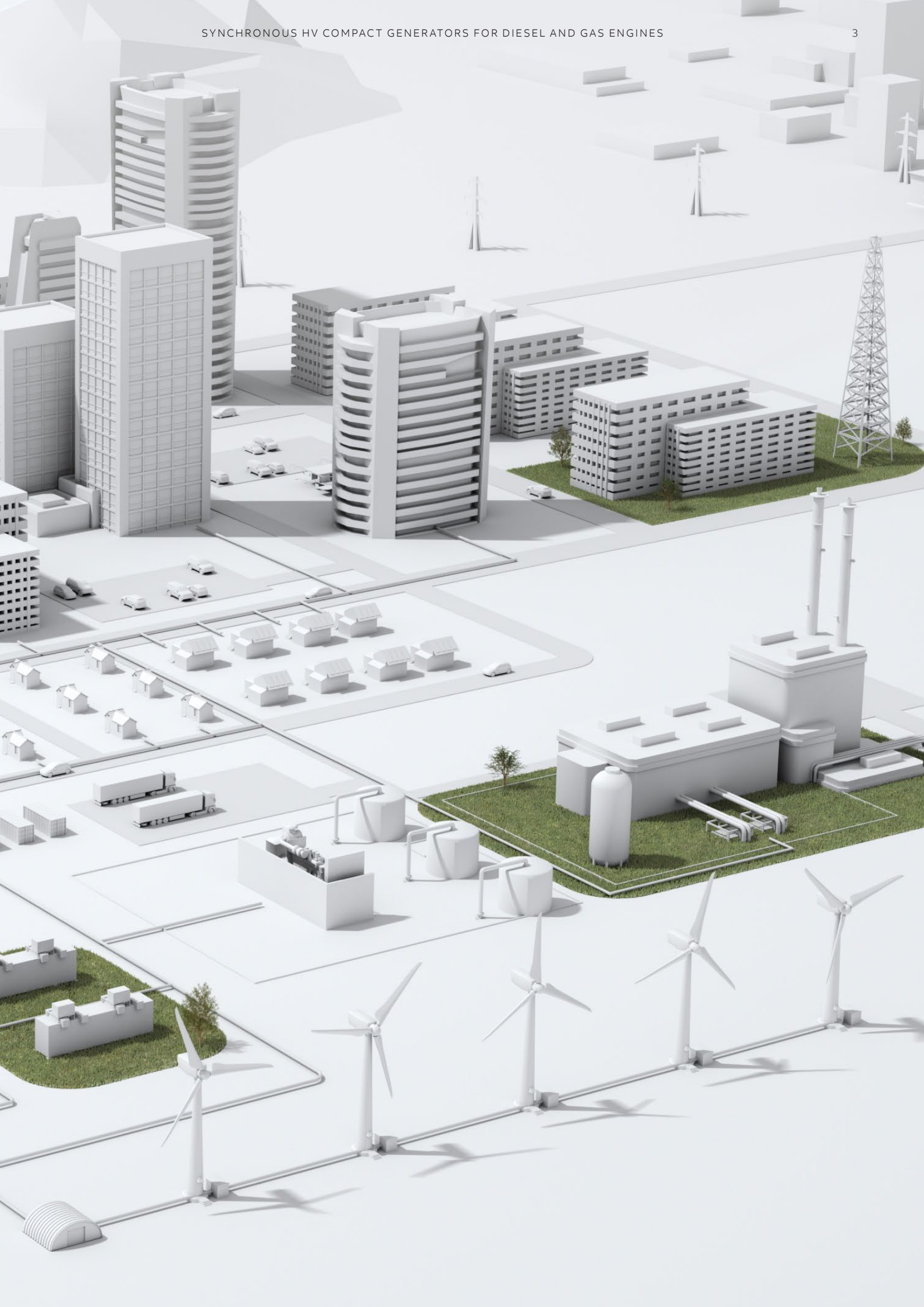


- ABB is the world's leading supplier of electric motors and generators. We offer a full range of synchronous generators for engines, turbines, and renewables, optimized to meet even the highest requirements.
- Our low, medium and high voltage portfolio extends up to 85,000 kVA, with voltages up to 15 kV.

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We provide motors, generators and mechanical power transmission products, services and expertise to save energy and improve customers' processes over the total life cycle of our products, and beyond.





## Generators from the leading global supplier

Whatever your generator needs – for continuous or standby power – ABB has a proven solution supported by local service and global manufacturing.



**We are the leader in diesel and gas engine applications with over 100,000 MVA of power supplied, enabling us to deliver the optimum product on time and in budget.**

ABB is the world's leading supplier of electric motors and generators. With more than a century of manufacturing behind us, we now have 31 production plants in 10 different countries to serve today's global markets.

We offer a full range of synchronous generators for engines, turbines, and renewables, optimized to meet even the highest requirements. Our low, medium and high voltage portfolio extends up to 85,000 kVA, with voltages up to 15 kV. The huge installed base of ABB generators – producing power in a full range of industrial and marine applications in all parts of the world – gives us the expertise to design the best possible generator to match your needs.

### **Technology leadership**

ABB is the global technology leader in motors and generators. We build generators to the strictest manufacturing standards and marine certifications, including solutions for the biggest gensets with common base frames.

Our generators feature the unique ABB Micadur® Compact Industry insulation system and vacuum pressure impregnation (VPI) of the windings, solutions that have proven themselves for over 30 years in tens of thousands of demanding motor and generator applications. The advanced insulation system exceeds the highest standards and gives the windings superior strength to withstand vibration, and mechanical and electrical stresses. Together with our vast experience in a wide range of bearing constructions, this results in high availability and trouble-free operation.

The changing power generation situation around the world presents new challenges for generating equipment. In the area of grid code compliance, for example, we utilize our broad experience in the wind power sector. Our products not only offer high reliability but also meet the requirements of today's market regarding issues like low voltage ride through (LVRT) events, high efficiency, fast response times and frequent starts.

Significant global investments in R&D ensure we will remain at the forefront in our chosen fields of technology.

### Application specific engineering

ABB has extensive experience in working with OEMs, integrators and end users. Our generators are optimized using advanced techniques including 3D design and CFD (Computational Fluid Dynamics). Vibration and mechanical noise, typical of piston engines, are efficiently reduced by FEM (Finite Element Method) simulations, with the results made available to the engine supplier for use in their own design work.

Our long-standing working relationships with engine manufacturers and genset builders have given us the experience and tools needed to analyze the impacts of external torsional and linear vibrations. Our engineering can meet all performance design challenges – including reactance tuning and voltage drop withstand needed with other gensets and motors in island operating mode – ensuring reliable power production when it is most needed.

### Generators for potentially explosive atmospheres

In industries like oil and gas, high voltage generators may be installed close to areas with highly flammable and explosive gases. Gas is not in contact with the generator in normal circumstances, but may be present occasionally. To ensure safe operation and prevent a serious accident, special protection concepts have been developed for equipment used in these types of location. The aim is to avoid potential sources of explosion, which are typically arcs, sparks and hot surfaces.

Generators that meet the requirements of protection concept Ex ec are designed to prevent foreseeable ignition sources in situations where the generator is operating within its design parameters in normal operation. The protection concept limits the maximum temperature of all the main

parts of the generator, and specifies measures to prevent arcs and sparks. An explosive gas can thus penetrate the generator without the risk of explosion. This kind of application also requires a higher IP class.

To meet the requirements of these applications, ABB offers an Ex certified version of the AMG HV compact series with IP class IP44 - IP55.

Available classifications are:

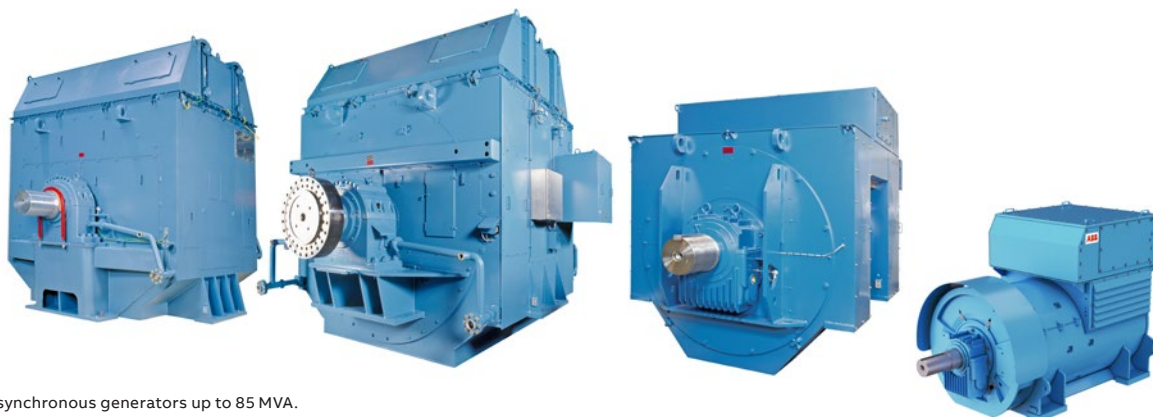
- ATEX EXec Zone 2, IIA, T3
- Class 1 Div 2

### Quality built in

Quality in ABB generators originates from our design, manufacturing processes and the materials we use. We source our purchases from reliable suppliers only and perform thorough testing in all phases of manufacturing. Our globally identical production processes ensure the same high ABB quality around the world.

Our generators comply with all major standards. The electrical designs are based on IEC 60034 (NEMA compliance optionally available), and the mechanical designs on ISO standards. Generators for marine or offshore applications also comply with all international classification standards.

In addition to our own quality programs using tools like FMEA, we follow the requirements of ISO 9001, ISO 14001 and OHSAS 18001. Our customers all over the world can rely on local ABB support, and life cycle services provided by our global organization and network of partners, to minimize downtime and keep their businesses running.



— Full range of synchronous generators up to 85 MVA.

# Synchronous generators for diesel and gas engines

0.9 to 7.8 MVA, 3.3 to 13.8 kV, IEC frame size 500 to 630, 50 or 60 Hz, 4p (1500 or 1800 rpm), 6p (1000 or 1200 rpm), 8p (750/900 rpm), 10p (720 rpm)

**ABB's standard industrial product family is specifically designed for diesel gensets in continuous or standby duty. These generators cover the power range 0.9 to 7.8 MVA in frame size 500 to 630 with voltages up to 15 kV.**

## Standardized generators offering high performance

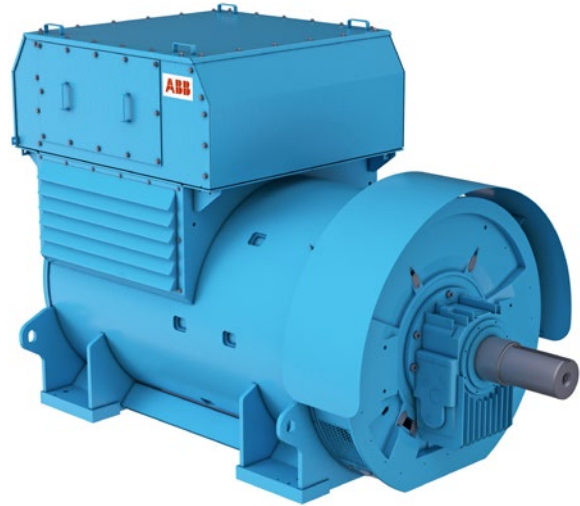
These open air cooled, 4 and 6-10 poles generators are highly standardized, enabling short delivery times and easy installation. They offer high overload capacity and reliable operation, even under distortive and unbalanced loads. High performance PMG excitation is standard, complemented by an analog or state-of-the-art digital AVR. Modular design and optional accessories enable easy customer interface adaptation.

## Optimized winding pitch increases efficiency

ABB eliminates harmonic currents in many different ways. Generators are engineered using FEM (Finite Element Method) modeling to optimize the rotor pole face and damper winding design. We also use a 5/6 (approx.) winding pitch, which reduces all significant harmonics to a minimum level. Reduced losses mean increased efficiency, and less active material is needed resulting in a compact size. This enables OEMs to save space when generators are mounted into canopies or standard containers. A 2/3 winding pitch is available as an option if needed.

## Designed for easy installation and serviceability

The innovative built-in exciter and PMG units, as well as the integrated main and auxiliary terminals and AVR, make the generators compact and easy to install. This means easier power plant design with less cabling. The optional SAE flange makes for even more reliable generator alignment and fast assembly. The frame design features easy access for diode replacement, and the internal PMG leaves the bearing free for servicing.



## Future-proof design means significant savings

The standard platform design needs only few frame lengths to cover the whole power range and provide scope for water cooling, two shaft ends, or other special designs in the future. This helps OEMs to minimize the number of genset base frames, resulting in savings in engineering and material costs. No additional length is required for the IC01A-IP44 option, and the same foot design is suitable for all protection classes.

The large terminal space has room for optional bus bars, PTs and CTs. ABB's state-of-the-art digital AVR option avoids the need for additional complex measurements for grid sensing equipment. And as your business expands to new locations, you can be certain that local ABB manufacturing plants and service units will provide easy logistics and technical support.

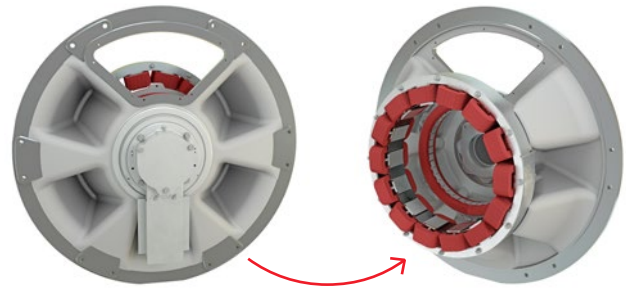
— High power density (kVA/m<sup>2</sup>) – smaller size to fit standard containers.



## Professional features in a standard generator series

### Excitation system

ABB offers an independent high performance PMG excitation power supply as standard. This completely separate electrical power source, is not disturbed by any current or voltage changes in the main stator winding. The integrated brushless excitation and PMG units deliver the best reliability and performance. The system provides good short-circuit capability and high motor start-up performance.



Built-in exciter and PMG in NDE shield with easy access to diodes.

### Micadur® Compact Industry insulation system

Both the stator and rigid salient pole rotor use ABB's reliable insulation system with a proven track record of over 30 years. Vacuum pressure impregnation (VPI) provides protection from harsh environmental conditions, and our form wound windings can withstand all mechanical and electrical stresses during demanding operating conditions like 2-phase short circuits. ABB 1-15 kV insulation system is cl. H according to the IEC 60034-18-31, Ed.2, 2012. The actual rating and temperature rise can be selected to offer wide safety margins and long lifetime. Typical selections based on duty (Acc. to the ISO 8528-1:2005) are:

#### Continuous Power (COP):

→ Temp. rise F-105 K/40°C or B-80 K/40°C

#### Prime Power (PRP), Limited-Time running Power (LTP) or Emergency Standby Power (ESP):

→ Temp. rise H-125 K/40°C or F-105 K/40°C

### ABB's cutting-edge digital AVR

In parallel operation no additional PLCs or cabling are needed to realize the Voltage Droop Compensation (VDC) control. For grid operation, ABB's advanced UNITROL® 1005, 1010 or 1020 digital AVR option completes the high performance generator package. This option also avoids the need for complicated measurements for grid sensing equipment. The digital AVR not only offers power factor regulation, voltage matching and limiters but also built-in diode monitoring and autosynchronization. Its fast voltage dip detection keeps the genset connected to the network during fault situations. Reliable Modbus communications save both cabling cost and commissioning time.

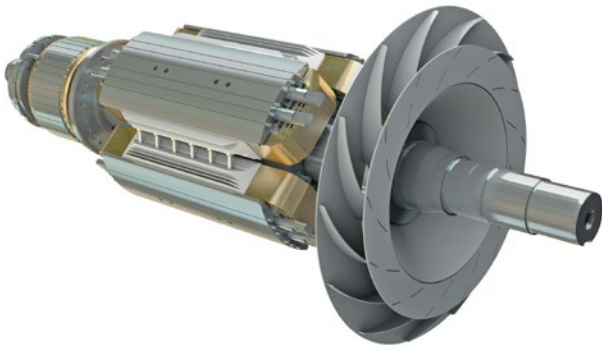


ABB's digital AVR option – everything in one built-in unit, including synchronization and diode monitoring.

## Electrical design

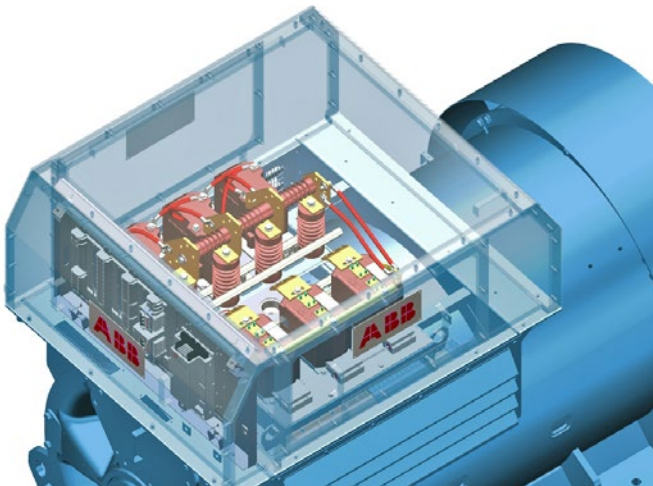


The winding end can withstand 2-phase short circuit forces.



Rigid salient pole rotor with innovative fan design.

Large, integrated terminal space in top of frame for easy installation of cables, transformers and AVR, with a smart cooling function.



### Stator structure

- Laminated high quality electrical steel sheets, insulated on both sides with a heat-resistant coating
- High quality, mica insulated form wound windings
- Six leads brought out into the terminals

### Winding pitch

- 5/6 (approx.) winding pitch as standard
- 2/3 winding pitch as option

### Rotor structure

- Rigid salient pole rotor, sub-critical design
- Laminated high quality electrical steel sheets
- Rectangular copper windings
- Full length aluminum winding supports
- CFD optimized rotor cooling
- Damper windings for stable operation

### Insulation

- ABB Micadur® Compact Industry
- Vacuum pressure impregnation (VPI) of the windings

### Excitation system

- Brushless excitation controlled by built-in AVR
- 3-phase PMG as standard for excitation power supply
- Sustained short circuit current:  $> 3 \times I_n$  for 10 s

### State-of-the-art automatic voltage regulator (AVR)

- Built-in analog AVR as standard, static voltage regulation
- Accuracy of  $\pm 0.5\%$  ( $\pm 0.2\%$  with digital option)
- Leading-edge digital AVR, UNITROL® 1005, 1010 or 1020 as an option with integrated automatic synchronization, diode monitoring and fast voltage dip detection (within 20 ms)
- 3-phase sensing option for imbalanced loads

### Terminal box

- Top integrated main and aux. terminals including the AVR
- Large terminal space for optional bus bars, CTs and PTs
- Star connection and 4 bus bars as standard (option: 6 bus bars and neutral side diff. protection CTs, to make an external star point in a customer supplied cabinet)



# Mechanical construction

## Frame size 500 to 630

- Intelligent structural design, excellent vibration durability
- Generator FEM model provided to OEMs for use in minimizing genset vibration
- Few frame lengths cover the whole power range

## Bearing end shields

- Rigid, stiffness optimized cast iron end shield
- NDE built-in exciter and PMG

## Cooling and protection (IC/IP)

- Open air cooled IC0A1/IP23
- CFD modelled asymmetrical cooling arrangement
- Innovative high efficiency fan design
- IP23 with filter option
- IP44R with connection to ventilation by air guides (inlet and outlet)
- IP54 closed machine with IC8 or IC6 cooling methods

## Mounting (IM)

- IM1101 (IMB20), raised feet, double bearings as standard
- IM 2401, SAE 0 and SAE 00 flange as option
- IM1205/1305, single bearing, SAE 0, SAE 00, disk 18" and 21", as option

## Bearings

- Rigid bearing construction using single or double bearings
- Regreasable anti-friction bearings
- Minimum lifetime 40,000 hrs (L10 h)
- Sleeve bearings as option

## Nominal speed

- 4 p: 1500 / 1800 rpm (50 / 60 Hz)
- 6 p: 1000 / 1200 rpm (50 / 60 Hz)
- 8 p: 750/900 rpm (50/60 Hz)
- 10 p: 720 rpm (60 Hz)

## Overspeed (1.25 x nominal speed)

- 4 p: maximum overspeed 2250 rpm
- 6 p: maximum overspeed 1500 rpm
- 8 p: maximum overspeed 1125 rpm
- 10 p: maximum overspeed 900 rpm

## Balancing

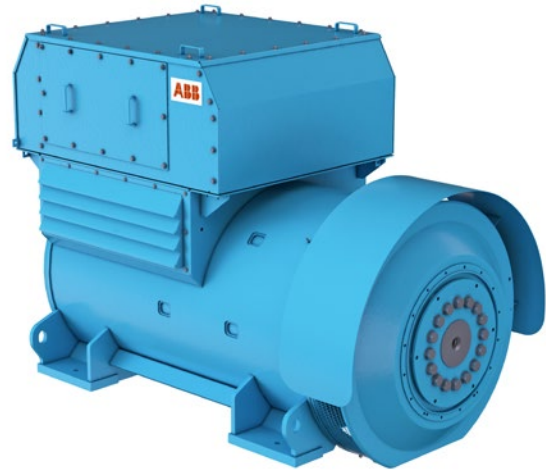
- Dynamically balanced according to ISO 1940, G1

## Overload capability

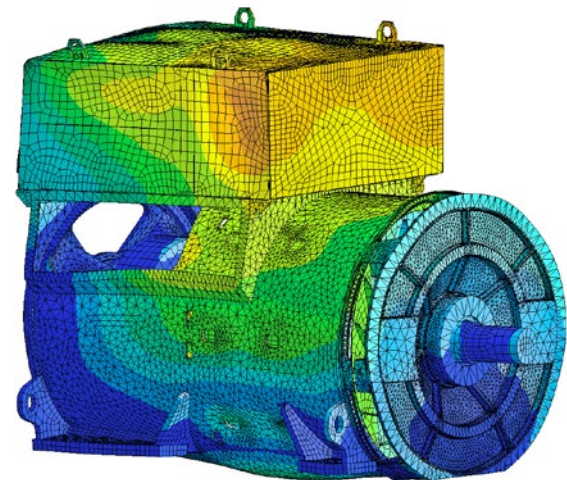
- 110% for one hour every twelve hours

## Operating temperature range

- From -20°C to +55°C



— Stiffness optimized end shields and frame.



— Vibration resistant construction based on FEM simulation.

## Power tables, 4 poles

AMG 0500, 0560 and 0630

50 Hz/1500 rpm, 3.3 - 11 kV \*)

### 50 HZ 4 POLES / 1500 RPM

Machine No.	Type	T° amb. 40°C - pf. 0.8 Duty: T° rise: Voltage:	Continuous, kWe / kVA				Standby, kWe / kVA			
			CL.F 105K				CL.H 125K			
			10 kV		10.5 - 11 kV		10 kV		10.5 - 11 kV	
		kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA	
C147	AMG 0500AE04 DAP		727	909	800	1000	785	982	864	1080
C112	AMG 0500AF04 DAP		909	1136	1000	1250	982	1227	1080	1350
C113	AMG 0500BJ04 DAP		1164	1455	1280	1600	1257	1571	1382	1728
C202	AMG 0500BK04 DAP		1309	1636	1440	1800	1414	1767	1555	1944
C123	AMG 0560AE04 DAP		1455	1818	1600	2000	1571	1964	1728	2160
C116	AMG 0560AF04 DAP		1636	2045	1800	2250	1767	2209	1944	2430
C118	AMG 0560AF04 DAP		1818	2273	2000	2500	1964	2455	2160	2700
C119	AMG 0560AH04 DAP		2036	2545	2240	2800	2199	2749	2419	3024
C121	AMG 0560BJ04 DAP		2182	2727	2400	3000	2356	2945	2592	3240
C120	AMG 0560BK04 DAP		2364	2955	2600	3250	2553	3191	2808	3510
C122	AMG 0560BM04 DAP		2655	3318	2920	3650	2867	3584	3154	3942
C215	AMG 0630AJ04 DAP		2764	3455	3040	3800	2985	3731	3283	4104
C214	AMG 0630AK04 DAP		2909	3636	3200	4000	3142	3927	3456	4320
C282	AMG 0630BL04 DAP		3055	3818	3360	4200	3299	4124	3629	4536
C212	AMG 0630BM04 DAP		3345	4182	3680	4600	3613	4516	3974	4968
C283	AMG 0630BN04 DAP		3491	4364	3840	4800	3770	4713	4147	5184
C169	AMG 0630BP04 DAP		3745	4682	4120	5150	4045	5056	4450	5562
C168	AMG 0630CQ04 DAP		3855	4818	4240	5300	4163	5204	4579	5724
C284	AMG 0630CR04 DAP		4000	5000	4400	5500	4320	5400	4752	5940
C167	AMG 0630CS04 DAP		4436	5545	4880	6100	4791	5989	5270	6588
C436	AMG 0630DT04 DAP		4840	6050	5104	6380	5227	6534	5512	6890
C418	AMG 0630DU04 DAP		5400	6750	5680	7100	5832	7290	6134	7668
		Voltage:	6 kV		6.3 - 6.6 kV		6 kV		6.3 - 6.6 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C144	AMG 0500AC04 DAP		727	909	800	1000	785	982	864	1080
C101	AMG 0500AD04 DAP		909	1136	1000	1250	982	1227	1080	1350
C103	AMG 0500AF04 DAP		1164	1455	1280	1600	1257	1571	1382	1728
C104	AMG 0500BH04 DAP		1309	1636	1440	1800	1414	1767	1555	1944
C106	AMG 0500BJ04 DAP		1455	1818	1600	2000	1571	1964	1728	2160
C266	AMG 0560AE04 DAP		1636	2045	1800	2250	1767	2209	1944	2430
C124	AMG 0560AF04 DAP		1818	2273	2000	2500	1964	2455	2160	2700
C267	AMG 0560AG04 DAP		2036	2545	2240	2800	2199	2749	2419	3024
C268	AMG 0560AH04 DAP		2182	2727	2400	3000	2356	2945	2592	3240
C127	AMG 0560BJ04 DAP		2364	2955	2600	3250	2553	3191	2808	3510
C269	AMG 0560BL04 DAP		2618	3273	2880	3600	2828	3535	3110	3888
C129	AMG 0560BM04 DAP		2764	3455	3040	3800	2985	3731	3283	4104
C279	AMG 0630AJ04 DAP		2764	3455	3040	3800	2985	3731	3283	4104
C218	AMG 0630AK04 DAP		3055	3818	3360	4200	3299	4124	3629	4536
C217	AMG 0630BL04 DAP		3273	4091	3600	4500	3535	4418	3888	4860
C176	AMG 0630BM04 DAP		3564	4455	3920	4900	3849	4811	4234	5292
C177	AMG 0630BN04 DAP		3745	4682	4120	5150	4045	5056	4450	5562
C178	AMG 0630BP04 DAP		3927	4909	4320	5400	4241	5302	4666	5832
C179	AMG 0630CQ04 DAP		4073	5091	4480	5600	4399	5498	4838	6048
C280	AMG 0630CR04 DAP		4291	5364	4720	5900	4634	5793	5098	6372
C181	AMG 0630CS04 DAP		4727	5909	5200	6500	5105	6382	5616	7020
C437	AMG 0630DT04 DAP		5320	6650	5600	7000	5746	7182	6048	7560
C419	AMG 0630DU04 DAP		5680	7100	6000	7500	6134	7668	6480	8100

\*) Other voltages available on request

**50 HZ 4 POLES / 1500 RPM**

Machine No.	Type	Voltage:	Continuous, kWe / kVA		Standby, kWe / kVA	
			CL.F 105K		CL.H 125K	
			kWe	kVA	kWe	kVA
C197	AMG 0500AB04 DAP		800	1000	864	1080
C143	AMG 0500AC04 DAP		920	1150	994	1242
C258	AMG 0500AD04 DAP		1040	1300	1123	1404
C100	AMG 0500AE04 DAP		1160	1450	1253	1566
C256	AMG 0500AF04 DAP		1320	1650	1426	1782
C102	AMG 0500BH04 DAP		1440	1800	1555	1944
C105	AMG 0500BJ04 DAP		1640	2050	1771	2214
C107	AMG 0500BK04 DAP		1800	2250	1944	2430
C199	AMG 0560AE04 DAP		1800	2250	1944	2430
C259	AMG 0560AF04 DAP		2000	2500	2160	2700
C132	AMG 0560AG04 DAP		2240	2800	2419	3024
C194	AMG 0560AH04 DAP		2400	3000	2592	3240
C260	AMG 0560BJ04 DAP		2600	3250	2808	3510
C134	AMG 0560BK04 DAP		2920	3650	3154	3942
C261	AMG 0560BL04 DAP		3040	3800	3283	4104
C136	AMG 0560BM04 DAP		3200	4000	3456	4320
C276	AMG 0630AJ04 DAP		3360	4200	3629	4536
C245	AMG 0630AK04 DAP		3600	4500	3888	4860
C244	AMG 0630BL04 DAP		3880	4850	4190	5238
C243	AMG 0630BM04 DAP		4040	5050	4363	5454
C242	AMG 0630BN04 DAP		4320	5400	4666	5832
C241	AMG 0630BP04 DAP		4560	5700	4925	6156
C240	AMG 0630CQ04 DAP		4800	6000	5184	6480
C239	AMG 0630CR04 DAP		5200	6500	5616	7020
C238	AMG 0630CS04 DAP		5440	6800	5875	7344
C438	AMG 0630DT04 DAP		5920	7400	6394	7992
C420	AMG 0630DU04 DAP		6240	7800	6739	8424

## Power tables, 4 poles

AMG 0500, 0560 and 0630

60 Hz /1800 rpm, 4.0 - 13.8 kV \*)

### 60 HZ 4 POLES / 1800 RPM

Machine No.	Type	T° amb. 40°C - pf. 0.8	Duty:	Continuous, kWe / kVA				Standby, kWe / kVA			
				T° rise:	CL.F 105K		CL.H 125K				
					12.47 kV		13.2 - 13.8 kV		12.47 kV		13.2 - 13.8 kV
		Voltage:		kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C158	AMG 0500BJ04 DAP			727	909	800	1000	785	982	864	1080
C157	AMG 0500BK04 DAP			909	1136	1000	1250	982	1227	1080	1350
C248	AMG 0500BK04 DAP			1164	1455	1280	1600	1257	1571	1382	1728
C150	AMG 0560AE04 DAP			1309	1636	1440	1800	1414	1767	1555	1944
C149	AMG 0560AF04 DAP			1455	1818	1600	2000	1571	1964	1728	2160
C151	AMG 0560AF04 DAP			1636	2045	1800	2250	1767	2209	1944	2430
C152	AMG 0560AG04 DAP			1818	2273	2000	2500	1964	2455	2160	2700
C153	AMG 0560AH04 DAP			2036	2545	2240	2800	2199	2749	2419	3024
C154	AMG 0560BJ04 DAP			2182	2727	2400	3000	2356	2945	2592	3240
C155	AMG 0560BK04 DAP			2327	2909	2560	3200	2513	3142	2765	3456
C156	AMG 0560BL04 DAP			2545	3182	2800	3500	2749	3436	3024	3780
C196	AMG 0560BM04 DAP			2655	3318	2920	3650	2867	3584	3154	3942
C211	AMG 0630AJ04 DAP			2836	3545	3120	3900	3063	3829	3370	4212
C210	AMG 0630AK04 DAP			3055	3818	3360	4200	3299	4124	3629	4536
C286	AMG 0630BL04 DAP			3200	4000	3520	4400	3456	4320	3802	4752
C285	AMG 0630BM04 DAP			3418	4273	3760	4700	3692	4615	4061	5076
C207	AMG 0630BN04 DAP			3673	4591	4040	5050	3967	4958	4363	5454
C206	AMG 0630BP04 DAP			3927	4909	4320	5400	4241	5302	4666	5832
C287	AMG 0630CQ04 DAP			4109	5136	4520	5650	4438	5547	4882	6102
C205	AMG 0630CR04 DAP			4364	5455	4800	6000	4713	5891	5184	6480
C288	AMG 0630CS04 DAP			4509	5636	4960	6200	4870	6087	5357	6696
Voltage:				7.2 kV				7.2 kV			
				kWe	kVA			kWe	kVA		
C145	AMG 0500AB04 DAP			800	1000			864	1080		
C115	AMG 0500AC04 DAP			1000	1250			1080	1350		
C114	AMG 0500AE04 DAP			1280	1600			1382	1728		
C141	AMG 0500AF04 DAP			1440	1800			1555	1944		
C142	AMG 0500BH04 DAP			1600	2000			1728	2160		
C148	AMG 0500BJ04 DAP			1800	2250			1944	2430		
C270	AMG 0560AE04 DAP			2000	2500			2160	2700		
C271	AMG 0560AE04 DAP			2240	2800			2419	3024		
C272	AMG 0560AF04 DAP			2400	3000			2592	3240		
C273	AMG 0560AG04 DAP			2560	3200			2765	3456		
C274	AMG 0560BJ04 DAP			2920	3650			3154	3942		
C162	AMG 0560BK04 DAP			3040	3800			3283	4104		
C163	AMG 0560BL04 DAP			3360	4200			3629	4536		
C275	AMG 0560BM04 DAP			3760	4700			4061	5076		
C220	AMG 0630AJ04 DAP			3840	4800			4147	5184		
C221	AMG 0630AK04 DAP			4080	5100			4406	5508		
C222	AMG 0630BL04 DAP			4320	5400			4666	5832		
C223	AMG 0630BM04 DAP			4640	5800			5011	6264		
C224	AMG 0630BN04 DAP			4880	6100			5270	6588		
C281	AMG 0630BP04 DAP			5120	6400			5530	6912		
C226	AMG 0630CQ04 DAP			5360	6700			5789	7236		
C227	AMG 0630CR04 DAP			5600	7000			6048	7560		
C228	AMG 0630CS04 DAP			5840	7300			6307	7884		

\*) Other voltages available on request

**60 HZ 4 POLES / 1800 RPM**

Machine No.	Type	Voltage:	Continuous, kWe / kVA		Standby, kWe / kVA	
			CL.F 105K		CL.H 125K	
			kWe	kVA	kWe	kVA
C146	AMG 0500AB04 DAP		960	1200	1037	1296
C257	AMG 0500AC04 DAP		1100	1375	1188	1485
C108	AMG 0500AD04 DAP		1280	1600	1382	1728
C109	AMG 0500AF04 DAP		1536	1920	1659	2074
C110	AMG 0500BH04 DAP		1728	2160	1866	2333
C111	AMG 0500BJ04 DAP		1920	2400	2074	2592
C193	AMG 0560AE04 DAP		2160	2700	2333	2916
C262	AMG 0560AF04 DAP		2400	3000	2592	3240
C138	AMG 0560AG04 DAP		2688	3360	2903	3629
C139	AMG 0560AH04 DAP		2880	3600	3110	3888
C140	AMG 0560BJ04 DAP		3120	3900	3370	4212
C190	AMG 0560BK04 DAP		3504	4380	3784	4730
C191	AMG 0560BL04 DAP		3648	4560	3940	4925
C192	AMG 0560BM04 DAP		3840	4800	4147	5184
C237	AMG 0630AJ04 DAP		4040	5050	4363	5454
C277	AMG 0630AK04 DAP		4280	5350	4622	5778
C235	AMG 0630BL04 DAP		4560	5700	4925	6156
C234	AMG 0630BM04 DAP		4800	6000	5184	6480
C233	AMG 0630BN04 DAP		5040	6300	5443	6804
C232	AMG 0630BP04 DAP		5360	6700	5789	7236
C231	AMG 0630CQ04 DAP		5600	7000	6048	7560
C278	AMG 0630CR04 DAP		6000	7500	6480	8100
C229	AMG 0630CS04 DAP		6240	7800	6739	8424

## Power tables, 6 poles

AMG 0560 and 0630

50 Hz / 1000 rpm, 3.3 - 11 kV \*)

### 50 HZ 6 POLES / 1000 RPM

Machine No.	Type	T° amb. 40°C - pf. 0.8 Duty: T° rise: Voltage:	Continuous, kWe / kVA				Standby, kWe / kVA			
			CL.F 105K				CL. H 125K			
			10 kV		10.5 - 11 kV		10 kV		10.5 - 11 kV	
		kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA	
C384	AMG 0560AE06 DAP		836	1045	920	1150	903	1129	994	1242
C385	AMG 0560AF06 DAP		982	1227	1080	1350	1060	1325	1166	1458
C386	AMG 0560AG06 DAP		1127	1409	1240	1550	1217	1522	1339	1674
C387	AMG 0560AH06 DAP		1200	1500	1320	1650	1296	1620	1426	1782
C388	AMG 0560BJ06 DAP		1273	1591	1400	1750	1375	1718	1512	1890
C389	AMG 0560BK06 DAP		1346	1682	1480	1850	1453	1817	1598	1998
C390	AMG 0560BL06 DAP		1454	1818	1600	2000	1571	1963	1728	2160
C391	AMG 0560BM06 DAP		1527	1909	1680	2100	1649	2062	1814	2268
C329	AMG 0630AH06 DAP		1600	2000	1760	2200	1728	2160	1901	2376
C330	AMG 0630AJ06 DAP		1746	2182	1920	2400	1885	2357	2074	2592
C331	AMG 0630AK06 DAP		1854	2318	2040	2550	2003	2503	2203	2754
C332	AMG 0630BL06 DAP		1964	2455	2160	2700	2121	2651	2333	2916
C333	AMG 0630BM06 DAP		2036	2545	2240	2800	2199	2749	2419	3024
C334	AMG 0630BN06 DAP		2146	2682	2360	2950	2317	2897	2549	3186
C335	AMG 0630BP06 DAP		2254	2818	2480	3100	2435	3043	2678	3348
C336	AMG 0630CQ06 DAP		2400	3000	2640	3300	2592	3240	2851	3564
C337	AMG 0630CR06 DAP		2546	3182	2800	3500	2749	3437	3024	3780
C338	AMG 0630CS06 DAP		2691	3364	2960	3700	2906	3633	3197	3996
C439	AMG 0630DT06 DAP		3080	3850	3240	4050	3326	4158	3499	4374
C421	AMG 0630DU06 DAP		3320	4150	3520	4400	3586	4482	3802	4752
		Voltage:	6 kV		6.3-6.6 kV		6 kV		6.3-6.6 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C366	AMG 0560AD06 DAP		873	1091	960	1200	943	1178	1037	1296
C367	AMG 0560AE06 DAP		945	1182	1040	1300	1021	1277	1123	1404
C368	AMG 0560AF06 DAP		1164	1455	1280	1600	1257	1571	1382	1728
C369	AMG 0560AG06 DAP		1273	1591	1400	1750	1375	1718	1512	1890
C370	AMG 0560AH06 DAP		1345	1682	1480	1850	1453	1817	1598	1998
C371	AMG 0560BJ06 DAP		1455	1818	1600	2000	1571	1963	1728	2160
C372	AMG 0560BK06 DAP		1527	1909	1680	2100	1649	2062	1814	2268
C373	AMG 0560BL06 DAP		1745	2182	1920	2400	1885	2357	2074	2592
C374	AMG 0560BM06 DAP		1818	2273	2000	2500	1964	2455	2160	2700
C309	AMG 0630AH06 DAP		1964	2455	2160	2700	2121	2651	2333	2916
C310	AMG 0630AJ06 DAP		2109	2636	2320	2900	2278	2847	2506	3132
C311	AMG 0630AK06 DAP		2182	2727	2400	3000	2356	2945	2592	3240
C312	AMG 0630BL06 DAP		2291	2864	2520	3150	2474	3093	2722	3402
C313	AMG 0630BM06 DAP		2400	3000	2640	3300	2592	3240	2851	3564
C314	AMG 0630BN06 DAP		2509	3136	2760	3450	2710	3387	2981	3726
C315	AMG 0630BP06 DAP		2618	3273	2880	3600	2828	3535	3110	3888
C316	AMG 0630CQ06 DAP		2691	3364	2960	3700	2906	3633	3197	3996
C317	AMG 0630CR06 DAP		2800	3500	3080	3850	3024	3780	3326	4158
C318	AMG 0630CS06 DAP		2909	3636	3200	4000	3142	3927	3456	4320
C440	AMG 0630DT06 DAP		3320	4150	3480	4350	3586	4482	3758	4698
C422	AMG 0630DU06 DAP		3560	4450	3760	4700	3845	4806	4061	5076

\*) Other voltages available on request

**50 HZ 6 POLES / 1000 RPM**

IP 23	T° amb. 40°C - pf. 0.8	Duty:	Continuous, kWe / kVA		Standby, kWe / kVA	
		T° rise:	CL.F 105K		CL. H 125K	
Machine No.	Type	Voltage:	3.3 - 3.45 kV		3.3 - 3.45 kV	
			kWe	kVA	kWe	kVA
C348	AMG 0560AD06 DAP		1080	1350	1166	1458
C349	AMG 0560AE06 DAP		1200	1500	1296	1620
C350	AMG 0560AF06 DAP		1360	1700	1469	1836
C351	AMG 0560AG06 DAP		1440	1800	1555	1944
C352	AMG 0560AH06 DAP		1560	1950	1685	2106
C353	AMG 0560BJ06 DAP		1680	2100	1814	2268
C354	AMG 0560BK06 DAP		1840	2300	1987	2484
C355	AMG 0560BL06 DAP		1920	2400	2074	2592
C356	AMG 0560BM06 DAP		2080	2600	2246	2808
C289	AMG 0630AH06 DAP		2240	2800	2419	3024
C290	AMG 0630AJ06 DAP		2400	3000	2592	3240
C291	AMG 0630AK06 DAP		2480	3100	2678	3348
C292	AMG 0630BL06 DAP		2600	3250	2808	3510
C293	AMG 0630BM06 DAP		2720	3400	2938	3672
C294	AMG 0630BN06 DAP		2840	3550	3067	3834
C295	AMG 0630BP06 DAP		2960	3700	3197	3996
C296	AMG 0630CQ06 DAP		3120	3900	3370	4212
C297	AMG 0630CR06 DAP		3240	4050	3499	4374
C298	AMG 0630CS06 DAP		3360	4200	3629	4536
C441	AMG 0630DT06 DAP		3840	4800	4147	5184
C423	AMG 0630DU06 DAP		3920	4900	4234	5292

## Power tables, 6 poles

AMG 0560 and 0630

60 Hz / 1200 rpm, 4.0 - 13.8 kV \*)

### 60 HZ 6 POLES / 1200 RPM

Machine No.	Type	T° amb. 40°C - pf. 0.8 Duty: T° rise: Voltage:	Continuous, kWe / kVA				Standby, kWe / kVA			
			CL.F 105K				CL.H 125K			
			12.47 kV		13.2 - 13.8 kV		12.47 kV		13.2 - 13.8 kV	
		kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA	
C392	AMG 0560AG06 DAP		1018	1273	1120	1400	906	1133	997	1246
C393	AMG 0560AH06 DAP		1164	1455	1280	1600	1036	1295	1139	1424
C394	AMG 0560BJ06 DAP		1273	1591	1400	1750	1133	1416	1246	1558
C395	AMG 0560BK06 DAP		1382	1727	1520	1900	1230	1537	1353	1691
C396	AMG 0560BL06 DAP		1455	1818	1600	2000	1295	1618	1424	1780
C397	AMG 0560BM06 DAP		1673	2091	1840	2300	1489	1861	1638	2047
C339	AMG 0630AJ06 DAP		1891	2364	2080	2600	1683	2104	1851	2314
C340	AMG 0630AK06 DAP		2000	2500	2200	2750	1780	2225	1958	2448
C341	AMG 0630BL06 DAP		2109	2636	2320	2900	1877	2346	2065	2581
C342	AMG 0630BM06 DAP		2182	2727	2400	3000	1942	2427	2136	2670
C343	AMG 0630BN06 DAP		2291	2864	2520	3150	2039	2549	2243	2804
C344	AMG 0630BP06 DAP		2436	3045	2680	3350	2168	2710	2385	2982
C345	AMG 0630CQ06 DAP		2509	3136	2760	3450	2233	2791	2456	3071
C346	AMG 0630CR06 DAP		2618	3273	2880	3600	2330	2913	2563	3204
C347	AMG 0630CS06 DAP		2764	3455	3040	3800	2460	3075	2706	3382
C442	AMG 0630DT06 DAP		3160	3950	3360	4200	3413	4266	3629	4536
C424	AMG 0630DU06 DAP		3400	4250	3600	4500	3672	4590	3888	4860
		Voltage:	7.2 kV				7.2 kV			
			kWe	kVA			kWe	kVA		
C375	AMG 0560AD06 DAP				1200	1500			1068	1335
C376	AMG 0560AE06 DAP				1480	1850			1317	1647
C377	AMG 0560AF06 DAP				1600	2000			1424	1780
C378	AMG 0560AG06 DAP				1720	2150			1531	1914
C379	AMG 0560AH06 DAP				1840	2300			1638	2047
C380	AMG 0560BJ06 DAP				1920	2400			1709	2136
C381	AMG 0560BK06 DAP				2160	2700			1922	2403
C382	AMG 0560BL06 DAP				2320	2900			2065	2581
C383	AMG 0560BM06 DAP				2400	3000			2136	2670
C319	AMG 0630AH06 DAP				2640	3300			2350	2937
C320	AMG 0630AJ06 DAP				2800	3500			2492	3115
C321	AMG 0630AK06 DAP				2880	3600			2563	3204
C322	AMG 0630BL06 DAP				3000	3750			2670	3338
C323	AMG 0630BM06 DAP				3120	3900			2777	3471
C324	AMG 0630BN06 DAP				3240	4050			2884	3605
C325	AMG 0630BP06 DAP				3360	4200			2990	3738
C326	AMG 0630CQ06 DAP				3520	4400			3133	3916
C327	AMG 0630CR06 DAP				3680	4600			3275	4094
C328	AMG 0630CS06 DAP				3840	4800			3418	4272
C443	AMG 0630DT06 DAP				4240	5300			4579	5724
C425	AMG 0630DU06 DAP				4560	5700			4925	6156

\*) Other voltages available on request



**60 HZ 6 POLES / 1200 RPM**

Machine No.	Type	Voltage:	Continuous, kWe / kVA		Standby, kWe / kVA	
			CL.F 105K		CL.H 125K	
			kWe	kVA	kWe	kVA
C357	AMG 0560AD06 DAP		1280	1600	1139	1424
C358	AMG 0560AE06 DAP		1520	1900	1353	1691
C359	AMG 0560AF06 DAP		1600	2000	1424	1780
C360	AMG 0560AG06 DAP		1760	2200	1566	1958
C361	AMG 0560AH06 DAP		1920	2400	1709	2136
C362	AMG 0560BJ06 DAP		2080	2600	1851	2314
C363	AMG 0560BK06 DAP		2240	2800	1994	2492
C364	AMG 0560BL06 DAP		2320	2900	2065	2581
C365	AMG 0560BM06 DAP		2400	3000	2136	2670
C299	AMG 0630AH06 DAP		2720	3400	2421	3026
C300	AMG 0630AJ06 DAP		2880	3600	2563	3204
C301	AMG 0630AK06 DAP		3080	3850	2741	3427
C302	AMG 0630BL06 DAP		3200	4000	2848	3560
C303	AMG 0630BM06 DAP		3360	4200	2990	3738
C304	AMG 0630BN06 DAP		3480	4350	3097	3872
C305	AMG 0630BP06 DAP		3600	4500	3204	4005
C306	AMG 0630CQ06 DAP		3720	4650	3311	4139
C307	AMG 0630CR06 DAP		3840	4800	3418	4272
C308	AMG 0630CS06 DAP		4000	5000	3560	4450
C444	AMG 0630DT06 DAP		4400	5500	4752	5940
C426	AMG 0630DU06 DAP		4720	5900	5098	6372

## Power tables, 8 poles

AMG 0560 and 0630

50 Hz / 750 rpm, 3.3 - 11.0 kV

### 50 HZ 8 POLES / 750 RPM

IP 23	T° amb. 40°C - pf. 0.8	Duty:	Continuous, kWe / kVA				Standby, kWe / kVA			
			T° rise:	CL.F 105K		CL.H 125K				
Machine No.	Type	Voltage:	3.3-3.45 kV				3.3-3.45 kV			
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C400	AMG 0560BM08 DAP		1520	1900			1642	2052		
C407	AMG0630BN08 DAP		2100	2625			2268	2835		
C409	AMG 0630CS08 DAP		3040	3800			3283	4104		
C447	AMG 0630DT08 DAP		3240	4050			3499	4374		
C429	AMG 0630DU08 DAP		3360	4200			3629	4536		
Specific power on request										
		Voltage:	6 kV		6.3-6.6 kV		6 kV		6.3-6.6 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C402	AMG 0560BM08 DAP		1320	1650	1360	1700	1426	1782	1469	1836
C406	AMG 0630AK08 DAP		1520	1900	1600	2000	1642	2052	1728	2160
C412	AMG 0630CS08 DAP		2640	3300	2760	3450	2851	3564	2981	3726
C446	AMG 0630DT08 DAP		2816	3520	2960	3700	3041	3802	3197	3996
C428	AMG 0630DU08 DAP		3008	3760	3160	3950	3249	4061	3413	4266
Specific power on request										
		Voltage:	10 kV		10.5-11 kV		10 kV		10.5-11 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C404	AMG 0560BM08 DAP		1080	1350	1120	1400	1164	1458	1210	1512
C415	AMG 0630CS08 DAP		2320	2900	2480	3100	2506	3132	2678	3348
C445	AMG 0630DT08 DAP		2544	3180	2680	3350	2748	3434	2894	3618
C427	AMG 0630DU08 DAP		2656	3320	2800	3500	2868	3586	3024	3780
Specific power on request										

AMG 0560 and 0630

60 Hz / 900 rpm, 4.0 - 13.8 kV

### 60 HZ 8 POLES / 900 RPM

IP 23	T° amb. 40°C - pf. 0.8	Duty:	Continuous, kWe / kVA				Standby, kWe / kVA			
			T° rise:	CL.F 105K		CL.H 125K				
Machine No.	Type	Voltage:	4-4.16 kV				4-4.16 kV			
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C401	AMG 0560BM08 DAP		1760	2200			1901	2376		
C410	AMG 0630CS08 DAP		3440	4300			3715	4644		
C450	AMG 0630DT08 DAP		3680	4600			3974	4968		
C432	AMG 0630DU08 DAP		3920	4900			4234	5292		
Specific power on request										
		Voltage:	7.2 kV		7.2 kV		7.2 kV		7.2 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C403	AMG 0560BM08 DAP		1880	2350			2030	2538		
C408	AMG 0630BP08 DAP		2880	3600			3110	3888		
C413	AMG 0630CS08 DAP		3280	4100			3542	4428		
C449	AMG 0630DT08 DAP		3600	4500			3888	4860		
C431	AMG 0630DU08 DAP		3840	4800			4147	5184		
Specific power on request										
		Voltage:	12.47 kV		13.2-13.8 kV		12.47 kV		13.2-13.8 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C405	AMG 0560BM08 DAP		On request	1160	1450	On request	1253	1566		
C416	AMG 0630CS08 DAP		On request	2480	3100	On request	2678	3348		
C448	AMG 0630DT08 DAP		2488	3110	2640	3300	2687	3359	2851	3564
C430	AMG 0630DU08 DAP		2872	3590	3040	3800	3102	3877	3283	4104
Specific power on request										

## Power tables, 10 poles

AMG 0630

60 Hz / 720 rpm, 4.0 - 13.8 kV

### 60 HZ 10 POLES / 720 RPM

IP 23	T° amb. 40°C - pf. 0.8	Duty:	Continuous, kWe / kVA				Standby, kWe / kVA			
			CL.F 105K		CL.H 125K		CL.F 105K		CL.H 125K	
Machine No.	Type	Voltage:	4-4.16 kV				4-4.16 kV			
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C411	AMG 0630CS10 DAP		2640	3300			2851	3564		
C453	AMG 0630DT10 DAP		2800	3500			3024	3780		
C435	AMG 0630DU10 DAP		3120	3900			3370	4212		
Specific power on request										
		Voltage:	7.2 kV				7.2 kV			
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C414	AMG 0630CS10 DAP		2640	3300			2851	3564		
C452	AMG 0630DT10 DAP		2880	3600			3110	3888		
C434	AMG 0630DU10 DAP		2960	3700			3197	3996		
Specific power on request										
		Voltage:	12.47 kV		13.2-13.8 kV		12.47 kV		13.2-13.8 kV	
			kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
C417	AMG 0630CS10 DAP		On request		1760	2200	On request		1901	2376
C451	AMG 0630DT10 DAP		1768	2210	1880	2350	1909	2387	2030	2538
C433	AMG 0630DU10 DAP		2000	2500	2120	2650	2160	2700	2290	2862
Specific power on request										

## Slow speed versions (8 & 10 poles)

The AMG HV compact is also available in 8-pole (750 / 900 rpm) and 10-pole (720 rpm) versions for slow speed engine applications. The 10-pole version has been developed to support cases where the engine is switched from 750 rpm (8-pole) at 50 Hz to 720 rpm for 60 Hz applications.

The slow speed versions are available in two frame sizes as standard. The power range covers up to 4000 kVA, temperature rise Class F.

Frame size	4 pole	6 pole	8 pole	10 pole
630	X	X	X	X
560	X	X	X	On request
500	X	X	On request	On request

Power tables show max power per frame size and voltage. Project optimized machines will be offered on request.

# Standard scope of delivery and optional accessories

## Easy customer interface adaptation

Delivery scope & accessories / Frame size 500 to 630	
	Delivery scope
<b>Direction of rotation (Facing drive-end)</b>	
CW	Standard
CCW	Option
<b>Stator winding pitch</b>	
5/6 pitch	Standard
2/3 pitch (if neutral connection directly grounded, or parallel operation)	Option/ETO
<b>Cooling and protection (IC – IP)</b>	
IC0A1 – IP23: open air cooled, with a protection grid only	Standard
IC0A1 – IP23: air inlet filter (no derating)	Option
IC0A1 – IP44: using filters and air direction guides	Option
IC3A1 – IP44R using air guides to connect to customer ventilation system	Option
IC6A1A6 – Air to air heat exchanger	Option/ETO
IC8A1W7 – Air to water heat exchanger	Option/ETO
<b>Mounting (IM)</b>	
IM 1001 – Double bearings, normal feet	Standard
IM 1101 – Double bearings, raised feet (to be confirmed in the order)	Option
IM 2401 – SAE 0, SAE 00 flange for double bearings	Option
IM 1205 – Single bearing, SAE 0, SAE 00, disk 18" and 21", normal feet	Option
IM 1305 – Single bearing, SAE 0, SAE 00, disk 18" and 21", raised feet	Option
IM 1005 – Double bearings, normal feet, one flanged shaft	Option
IM 1002 – Double bearings, normal feet, two cylindrical shaft ends	Option
<b>Bearing type</b>	
Antifriction bearings	Standard
Insulated bearing at NDE	Standard
Sleeve bearings	Option/ETO
<b>Temperature and vibration detectors</b>	
2 x 3 pt100, for stator	Standard
1 x pt100, for each bearing	Option
SPM nipples for both ends	Option
SPM sensors	Option
Bently Nevada seismic vibration probes	Option/ETO
Bently Nevada proximity probes	Option/ETO
<b>Main connections</b>	
1+3 bus bars: (room for optional 3 x 1PT + 3 x 4CT + 1 x 2CT, purchased separately)	Standard
3+3 bus bars: (to connect a separate customer supplied cabinet on neutral side for CTs and PTs)	Option
<b>Cable entry</b>	
Undrilled gland plate	Standard
Multi-diameter cable through system	Option
Cable glands by customer specification	ETO
Grounding bars for shielded cable grounding, stainless steel	Standard
Horizontal, from either side (to be confirmed at the order)	Standard
45° angle gland plate, up or down	Option/ETO
<b>Auxiliary connections</b>	
IP55	Standard
Screw clamp cable connection in auxiliary box	Option
<b>Anti condensation heater</b>	
1-phase space heater	Standard
3-phase space heater	Option

<b>Delivery scope &amp; accessories / Frame size 500 to 630</b>	
	<b>Delivery scope</b>
<b>Brushless excitation system and control</b>	
Built-in PMG excitation power source	Standard
Built-in AVR, analogic	Standard
Built-in AVR, digital (ABB UNITROL®1005) 2 versions: light, Eco	Option
Built-in AVR, digital (ABB UNITROL®1010) 3 versions: light, basic and full	Option
AVR supplied as a separate item (to be confirmed at the order)	Option
1 ph sensing voltage regulation	Standard
3 ph sensing voltage regulation	Option
<b>Transformers (VTs &amp; CTs)</b>	
Current Transformers for parallel operation, (REF. 2CT), 1 pcs	Option
Current Transformers for differential protection and measurement (REF. 4CT), 3 pcs , 2 cores on neutral side	Option
<b>Painting</b>	
ABB C3: Epoxy primer + acrylic top coat acc. to ISO 12944:2018. Standard color ABB Blue	Standard
Special color: Topcoat can be changed according to specific customer request.	Option
<b>Miscellaneous</b>	
Grid code compliant design, for weak grid conditions	Option / ETO
Other voltages	Option / ETO
Other grade of protection IP	Option / ETO
Drain hole plugs, (brass sintered)	Standard
Packing for land transportation. ABB standard slide for container transport.	Standard
Packing for marine transportation	Option
Moisture resistant varnish for rotor and stator	Option
Earthing Brush	Option
Standard documentation – 1 set	Standard
Further set of documentation	Option
Optional documentation, to be defined	Option
<b>Testing</b>	
Routine test – IEC 60034-1	Standard
Type test	Option
Special testing	Option
Witness testing	Option
<b>Spare parts</b>	
Diode kit (3D+, 3D-, 1 varistor)	Option
Bearing Drive End	Option
Bearing Non-Drive End	Option
Extra set of air filters (IP23)	Option

**Legend:**

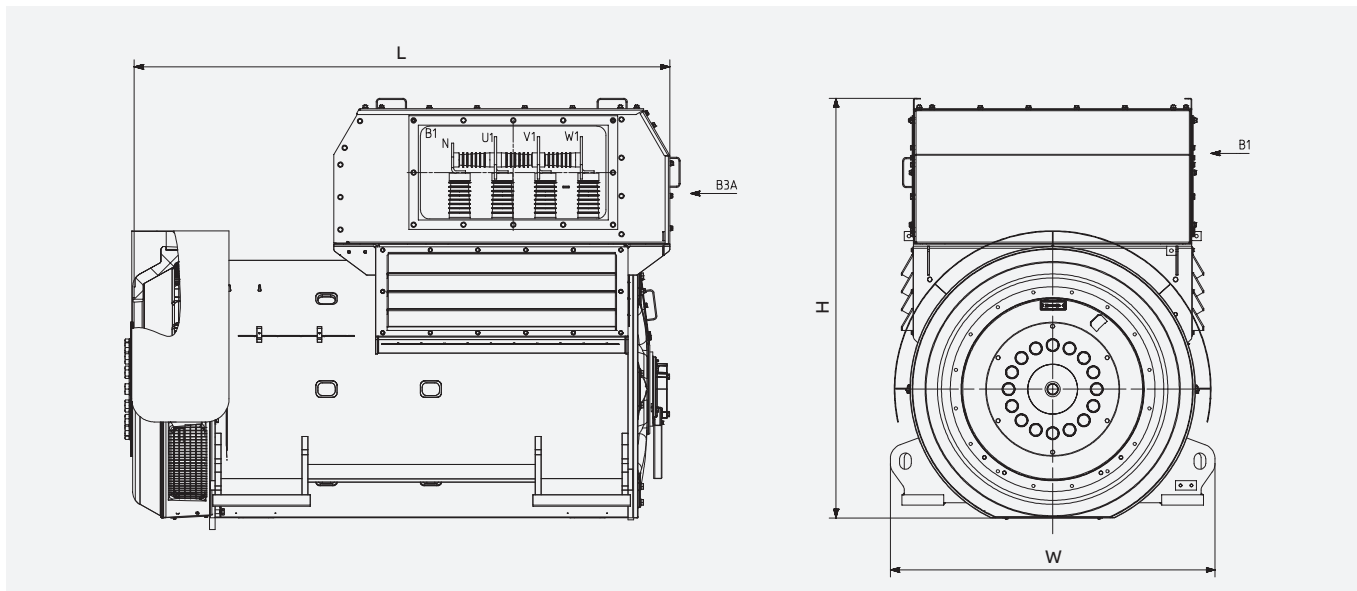
Standard = Included

Option = To be quoted separately

ETO = Engineered, to be quoted case by case

# Main dimensions drawings

## SINGLE BEARING, IP 23 NO DERATING OR EXTRA WIDTH NEEDED FOR AIR INLET FILTERS OPTION (IP 23)

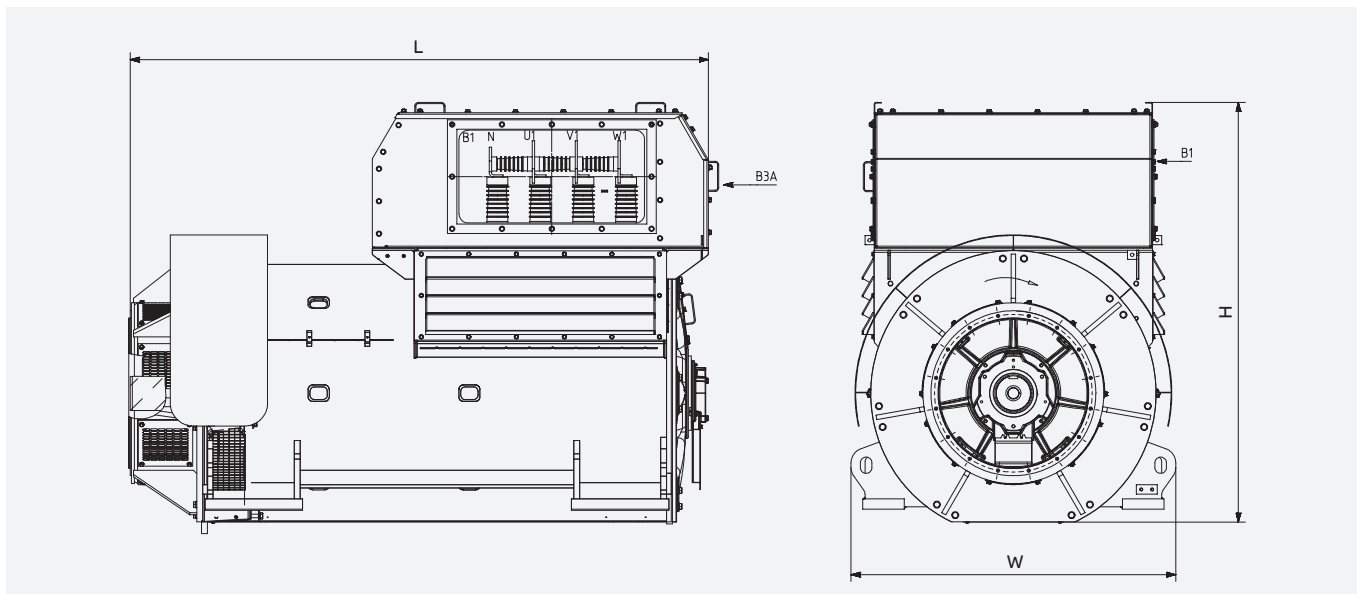


### Maximum dimensions

Machine type	H	L	W
AMG 0500	1788	2275	1310
AMG 0560	1909	2509	1400

Please contact your ABB representative for exact dimensions of your chosen generator

## DOUBLE BEARING, IP 23 NO DERATING OR EXTRA WIDTH NEEDED FOR AIR INLET FILTERS OPTION (IP 23)



### Maximum dimensions

Machine type	H	L	W
AMG 0500	1789	2463	1310
AMG 0560	1909	2693	1400
AMG 0630	2049	3363	1650

Please contact your ABB representative for exact dimensions of your chosen generator

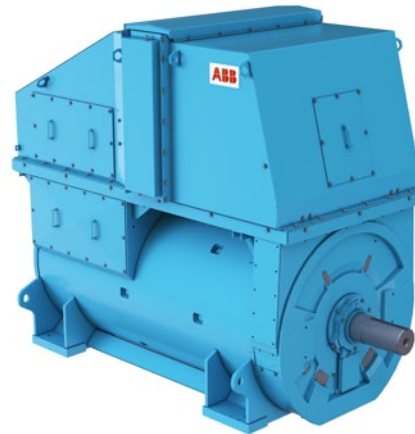
## The ABB ETO range – engineered to order

ABB's flexible standard generator family is made for fast delivery, but it can also be further customized by using the various available ETO design options – engineered to order.

ABB generators can be used with all engine brands and can be easily adapted to meet your special needs. In addition to the most common IP23 open air cooled 4-pole design with single or double bearings, various pre-engineered solutions are available.

The ETO options include selected configurations for more demanding applications, using totally enclosed systems with separate water or air heat exchangers, sleeve bearing arrangements, two shaft ends, 2/3 pitch stator winding and grid code optimized designs.

These options allow the same generators to be employed when expanding your portfolio for future special applications.



Totally enclosed, water cooled, single bearing generator.

Demanding data center application



**Sleeve bearings** can be used for long life time and easy maintenance. In marine applications, for example, they enable up to 5 degree static inclination angles as standard. Sleeve bearings are normally forced lubricated from an external source as the engine or turbine or from a separately mounted pump. Insulated types are available as an option.

**Two shaft end** configuration can be used for example to obtain an additional LV supply by mounting another generator on the same drivetrain, or connecting a turbine at the generator non-drive end in a Waste Heat Recovery system application.

### Cooling options, IC

The standard design is compatible with both air to air and air to water coolers, with no changes in the generator mounting dimensions needed.

### Protection, IP

Different protection types are available, including IP 44 or IP 55 totally enclosed options for more demanding environments.

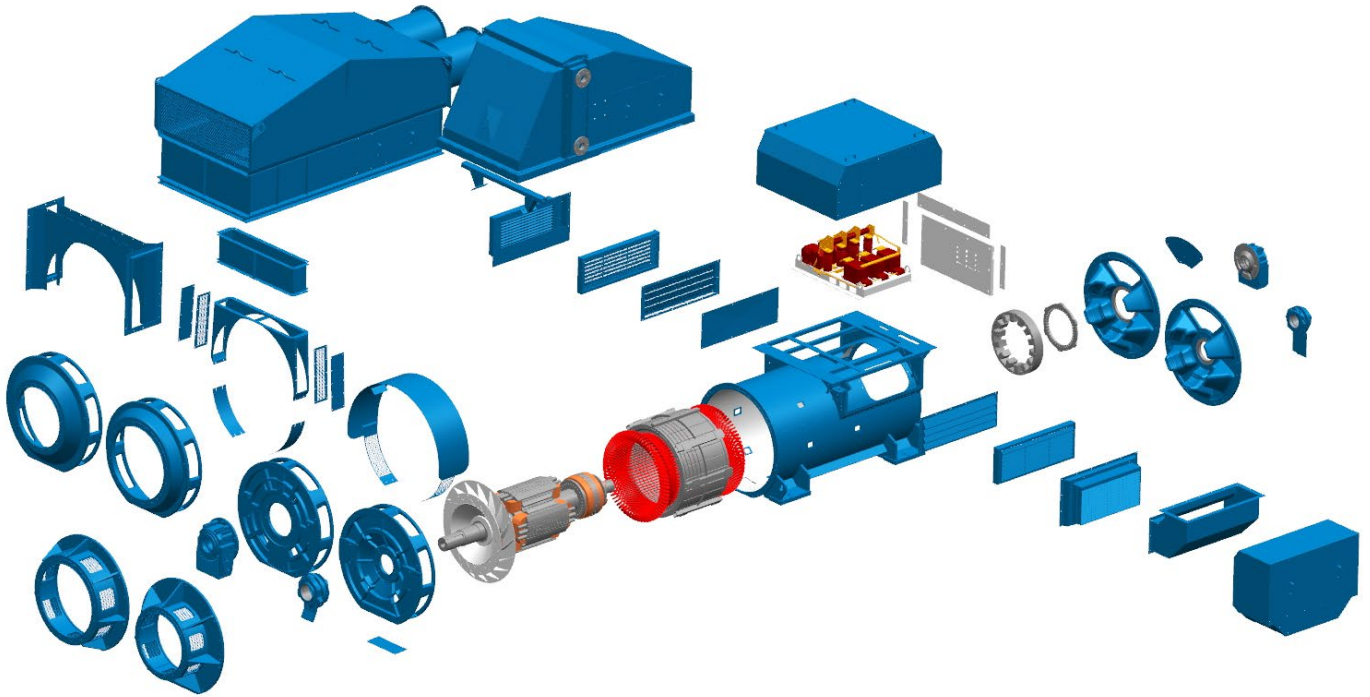
### Mounting, IM

There are several options to mount the generator, either normal or raised feet, with double or single bearings and one or two cylindrical or flanged shaft ends. For example: flanged connection with normal or raised feet IM 1205 / IM 1305 using SAE 0, SAE 00 flange in a single bearing option.

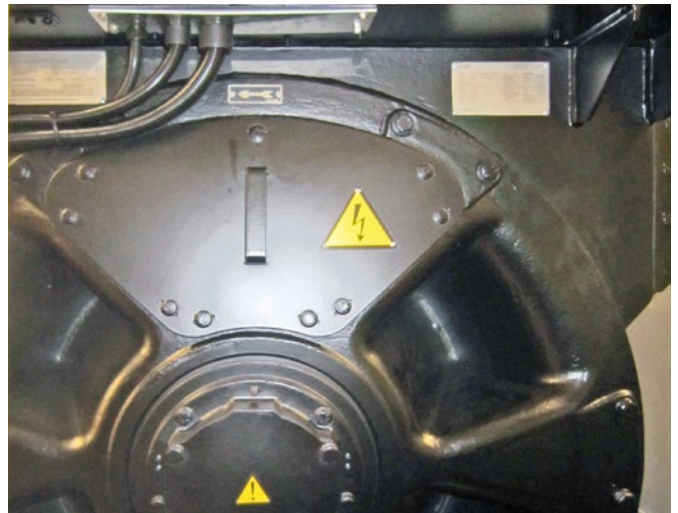
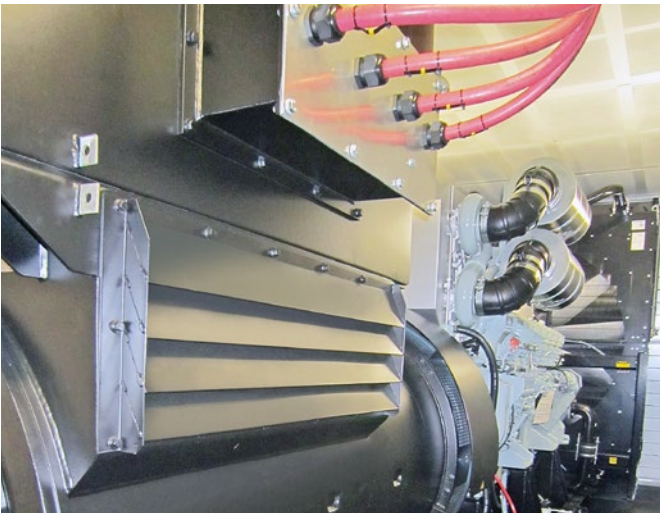
Emergency power supply application



## Fast customizing with pre-engineered configurations



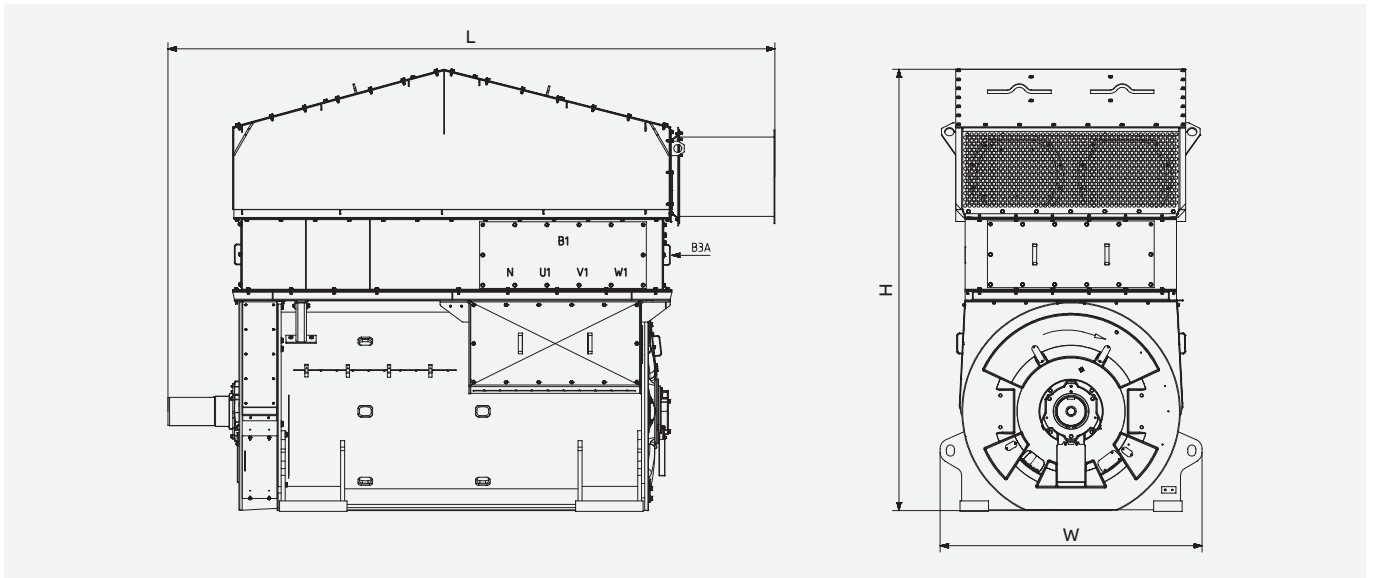
Emergency generator set supplying 2,000 kVA / 11 kV





# Typical designs as an example

## AIR TO AIR COOLED GENERATOR WITH DOUBLE BEARINGS AND NORMAL FEET

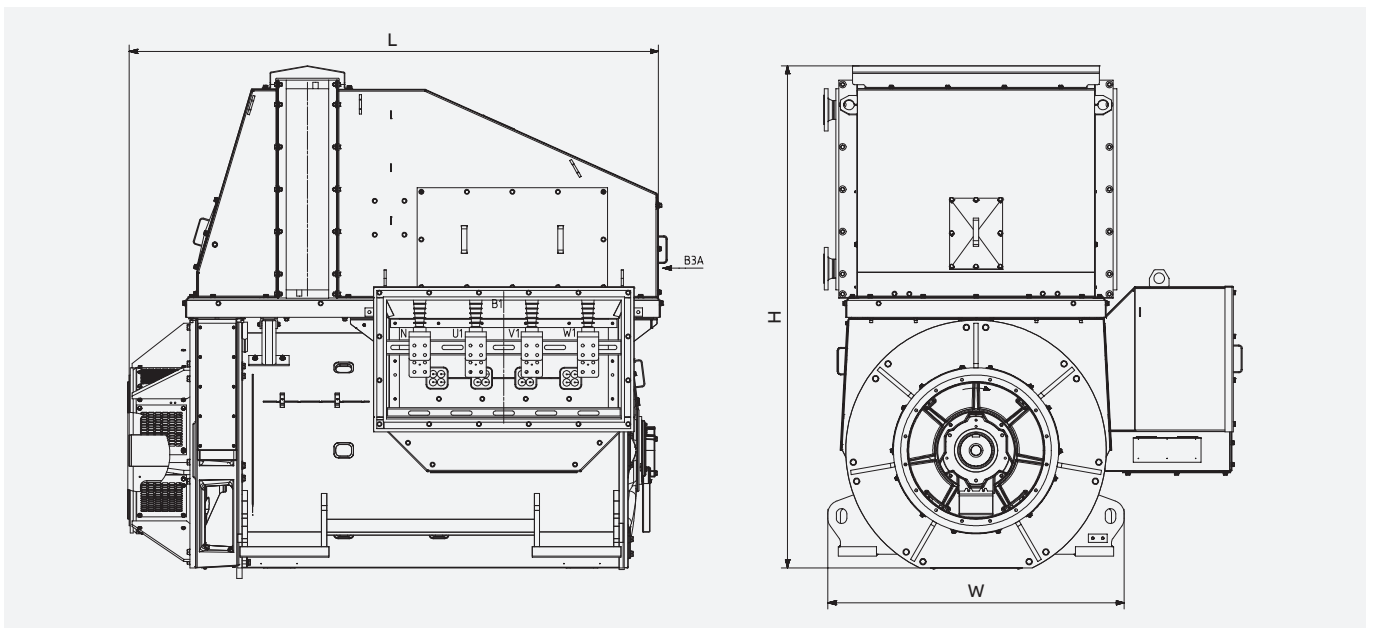


Maximum dimensions

Machine type	H	L	W
AMG 0560	2700	3500	1400
AMG 0630	2900	4200	1650

Please contact your ABB representative for exact dimensions of your chosen generator

## WATER COOLED GENERATOR WITH DOUBLE BEARINGS AND RAISED FEET



Maximum dimensions

Machine type	H	L	W
AMG 0500	1970	2750	1310
AMG 0560	2290	3040	1400
AMG 0630	2560	3700	1650

Please contact your ABB representative for exact dimensions of your chosen generator

# Total product offering

Motors, generators and mechanical power transmission products.



## IEC motors

- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for food and beverage
- Motors for variable speed drives
- Permanent magnet motors
- Synchronous reluctance motors
- Traction motors

## NEMA motors

- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for variable speed drives
- Permanent magnet motors
- Servomotors
- Washdown motors

## Generators

- Generators for wind turbines
- Generators for diesel and gas engine power plants
- Generators for steam and gas turbine power plants
- Generators for marine applications
- Generators for industrial applications
- Generators for traction applications
- Synchronous condensers for reactive power compensation

## Mechanical power transmission components, bearings, gearings

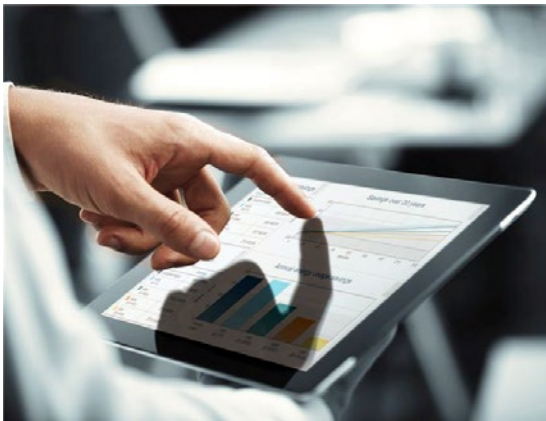
- Mounted bearings
- Enclosed gearing
- Mechanical drive components
- Couplings
- Sheaves and bushings
- Conveyor components
- Geared motor units

## Life cycle services

## Life cycle services and support

### From pre-purchase to migration and upgrades

ABB offers a complete portfolio of services to ensure trouble-free operation and long product lifetimes. These services cover the entire life cycle. Local support is provided through a global network of ABB service centers and certified partners.



#### Pre-purchase



ABB's front-end sales organization can help customers to quickly and efficiently select, configure and optimize the right generator for their application.

#### Installation and commissioning



Professional installation and commissioning by ABB's certified engineers represent an investment in availability and reliability over the entire life cycle.

#### Engineering and consulting



ABB's experts provide energy efficiency and reliability appraisals, advanced condition and performance assessments and technical studies.

#### Condition Monitoring and Diagnosis



Unique services provide early warnings before failures occur. Data can be collected by an engineer on-site or by remote monitoring. With the ABB Ability™ platform data can be transmitted to the cloud and accessed and analyzed remotely, allowing even greater insight into the health of the equipment. The services focus on the bearings, rotor winding, stator winding insulation and overall mechanical condition.

#### Maintenance and field services



ABB offers life cycle management plans and preventive maintenance products. The recommended four-level maintenance program covers the entire product lifetime.

#### Spare parts



Spare parts and support are offered throughout the life cycle of ABB products. In addition to individual spares, tailored spare part packages are also available.

#### Repair and refurbishment



Support for all ABB generators and other brands is provided by ABB's global service organization. Specialist teams can also deliver emergency support.

#### Migration and upgrades



Life cycle audits determine the optimum upgrades and migration paths. Upgrades range from individual components to direct replacement generators.

#### Training



Product and service training courses take a practical approach. The training ranges from standard courses to specially tailored programs to suit customer requirements.

#### Specialized support



Specialized support is offered through ABB's global service organization. Local units provide major and minor repairs as well as overhauls and reconditioning.

#### Service contracts



Service contracts are tailored to the customer's needs. The contracts combine ABB's entire service portfolio and 120 years of experience to deploy the optimal service practices.



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For more information, please contact  
your local ABB representative or visit

**[new.abb.com/motors-generators/generators](http://new.abb.com/motors-generators/generators)**

**Additional information**

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