

MorganAM&T™

Aegis SGR™

Shaft Current Grounding System



Morgan Crucible

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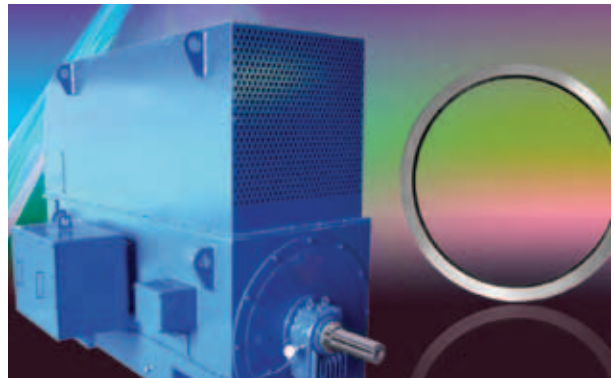
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The AEGIS SGR™ shaft current grounding system effectively mitigates shaft currents, thus protecting motor bearings from premature failure.



No maintenance



High reliability



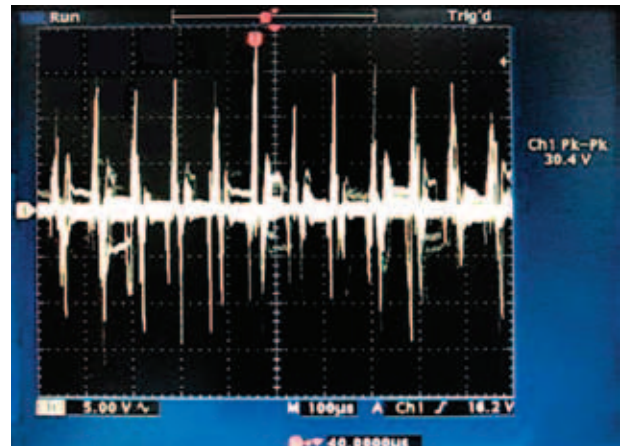
Highest demands

The AEGIS Bearing Protection Ring™ (bearing protection ring) protects the life of motor bearings. Variable frequency controllers induce electrical currents on the shaft of DC or AC motors. If the AEGIS SGR™ bearing protection ring is installed in the motor, you will benefit from reduced downtime, improved production and increased reliability.

Problem

Induced electrical currents in rotor shafts damage bearings. The use of variable-speed drives with AC motors induces electrical currents on the motor shaft. Once they exceed the resistance of the bearing lubricant, these currents discharge to ground (typically the motor housing), causing fusion craters in the bearings. Over time, these craters increase in size and number, resulting in frosting, pitting, fluting, and eventually bearing failure.

Shaft currents without SGR protection ►

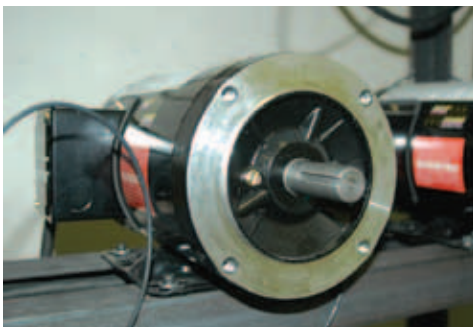
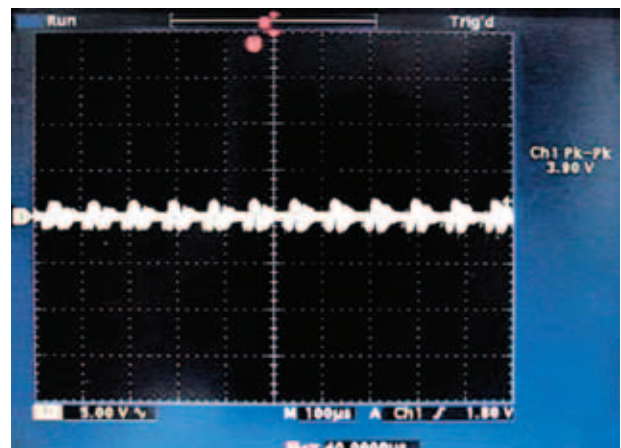


Solution

AEGIS SGR™ – provides protection against bearing damage from electrical currents

The new AEGIS SGR™ prevents electrical damage to motor bearings by safely channelling harmful shaft currents to ground. Using proprietary Electron Transport Technology™, the conductive microfibres inside the AEGIS SGR™ provide the path of least resistance for harmful shaft currents, preventing electrical damage to motor bearings and dramatically extending motor life.

Shaft voltage measurement with SGR protection ►



No protection



Inverter

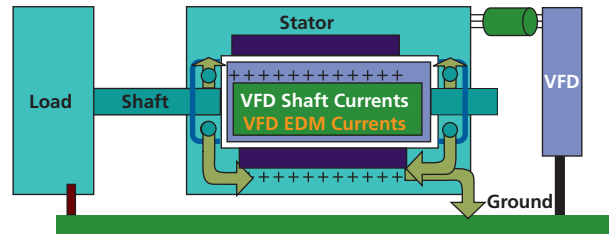


AEGIS SGR™ bearing protection



Induced shaft currents

On the shafts of alternating current motors harmful electrical currents are induced when these are operated with variable frequency control systems. The extremely high on/off switching speed of pulse-width modulation generated by bipolar transistors with an insulated output induce harmful voltages in the motor shaft due to parasitic capacitive coupling between the stator and the rotor. This voltage on the shaft is looking for a way to ground, which usually runs through the bearings of the motor.



Spark erosion damages bearings

Damage to bearings

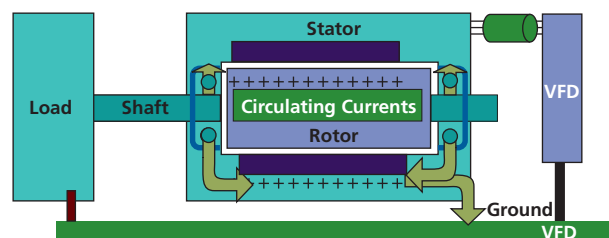
Harmful electrical currents jump like sparks over the dielectric oil film between the moving parts and the bearing surface. That is known as the EDM effect. This causes fusion craters, serious corrosion and ultimately causes bearing fluting and pitting (a washboard-like pattern on the surface of the bearing) leading to premature failure of the bearings.



Bearing fluting, "washboard" pattern on the bearing surface

Circulating high-frequency currents in large DC and AC motors

In addition to possible bearing failures in motors due to induced electrical currents, AC motors greater than 75 kW may also suffer failures caused by high-frequency circulating currents. These induced high-frequency circulating currents lie within the kilohertz or even the megahertz range and circulate through the bearings of the motor due to an imbalance of magnetic flux in the stator. This kind of induced current becomes the increasingly destructive current in high-power motors.

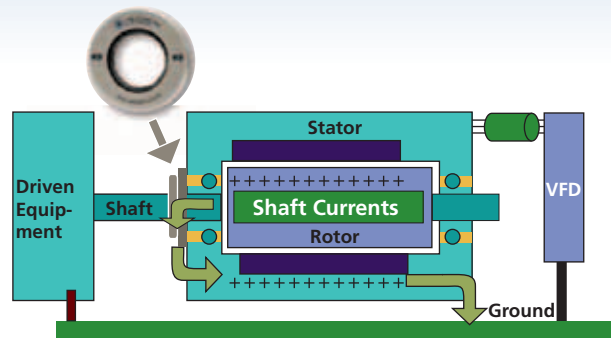


High frequency currents damage bearings

Improvement of system reliability and production with maintenance-free and life-long bearing protection

Motors up to 75 kW

Every frequency-controlled motor requires bearing protection. Motors with performances of less than 75 kW to the fraction of a horsepower suffer failures/losses if controlled by a PWM drive. The AEGIS SGR™ bearing protection ring guarantees that such motors do not fail due to bearing damage during the entire life of the motor.

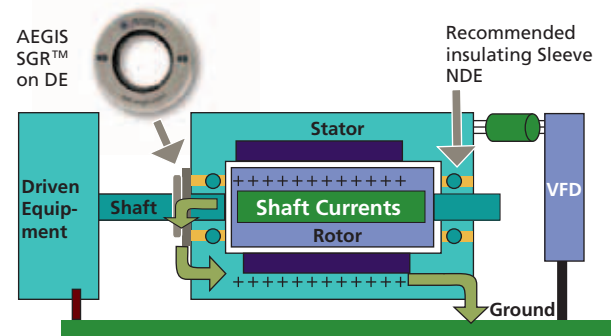


Installing an AEGIS SGR™ either at the drive-end (DE) side or the non-drive end (NDE) of the motor. The simplest method is to install the AEGIS SGR™ over the shaft end and mount it at the drive end using the easily mountable assembly parts AEGIS SGR™ that come with every AEGIS SGR™.

Motors from 75 kW to 750 kW

When frequency-controlled drive motors with more than 75 kW are used, induced and high-frequency circulating currents may occur. The protection of the bearings will require an additional AEGIS SGR™. The three most common motor configurations each require a different approach in order to prevent both two effects.

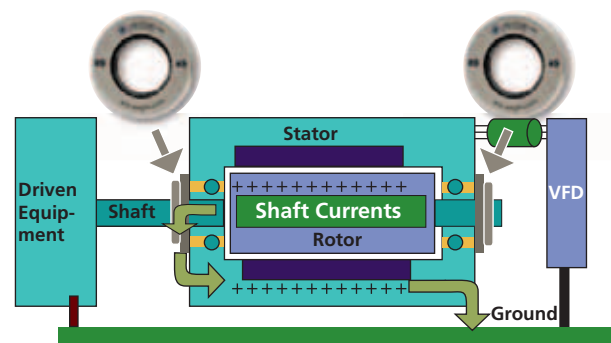
- The motor frame must be well grounded
- Non-Drive End: Bearing journal should be insulated or Insulated/Ceramic bearing installed to disrupt circulating currents
- Install Aegis SGR™ Bearing Protection Ring™ on opposite end of insulation and Insulated/Ceramic Bearing (usually DE)
- Aegis SGR™ protects motor bearings and attached equipment from VFD induced voltages
- Currents are diverted away from the bearings through the Aegis SGR™
- Protects bearings in attached equipment (gear box, pillow block, encoder etc.)



Insulation on one end (usually NDE) and Aegis SGR™ on opposite end

If insulation is not possible, use Aegis SGR™ on both ends to mitigate bearing currents

- Motor frame must be well grounded
- Install AEGIS SGR™ Bearing Protection Ring™ on drive and non-drive end to provide path of least resistance for circulating currents and to channel VFD currents to ground
- Currents are diverted from the bearings by the AEGIS SGR™
- Protects bearings in attached equipment (gear box, pillow block, encoder etc.)

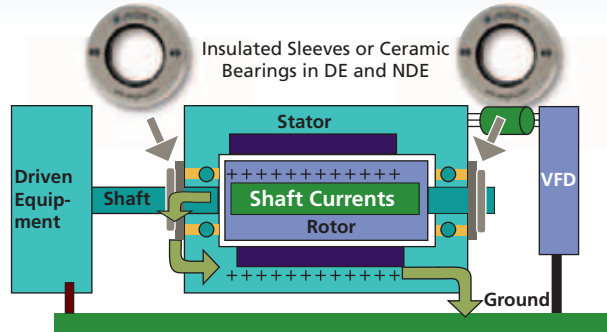




Critical Applications:

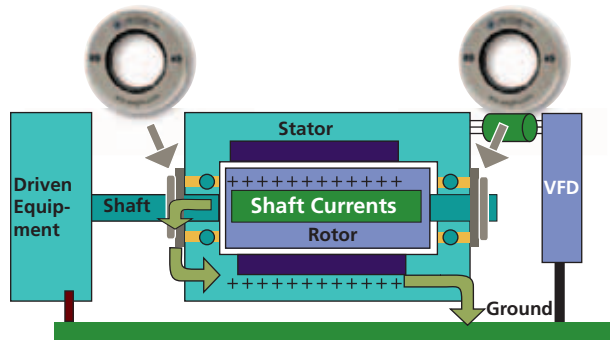
Insulate both ends and add Aegis SGR™ Bearing Protection Ring™ on both ends

- Motor frame must be well grounded
- Drive and Non-Drive end: Bearing journals should be insulated or Insulated/Ceramic Bearing installed to disrupt circulating currents
- Install AEGIS SGR™ Bearing Protection Ring™ on drive and non-drive end to provide path of least resistance for shaft voltages and to channel VFD induced currents to ground.
- AEGIS SGR™ required to protect bearings in attached equipment (gear box, pillow block, encoder, etc.)



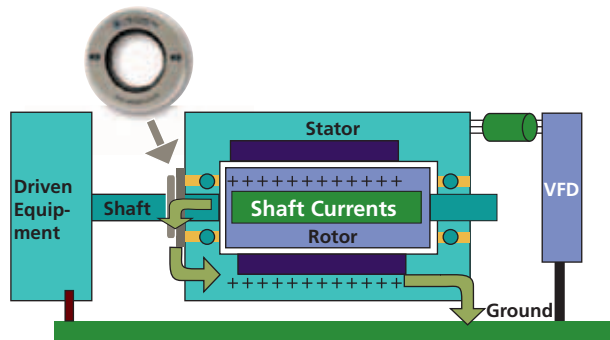
Large motors without insulated bearings

- The motor housing must be well-grounded.
- Installation of the AEGIS SGR™ on the drive-end (DE) side and the non-drive end (NDE) creates a path of least resistance for circulating currents in order to divert electrical currents to ground.
- The electrical currents are diverted from the bearings by the AEGIS SGR™.



Non-insulated bearings for large motors on the drive end (DE) and insulated bearings on the non-drive end (NDE)

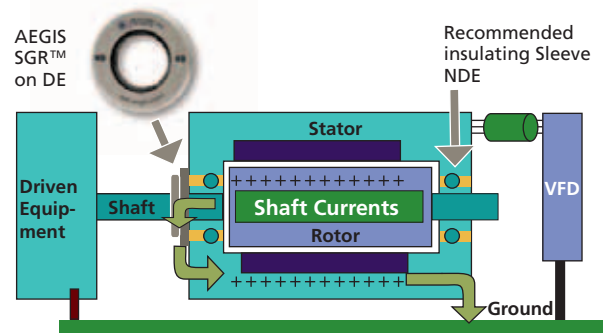
- Grounding of the motor housing.
- Installation of the AEGIS SGR™ on the drive end (opposite end to the insulated bearing).
- AEGIS SGR™ protects non-insulated bearings from induced electrical currents.
- Electrical currents are diverted from the bearings by the AEGIS SGR™.
- The bearings of connected generator sets (drive unit, bearing pedestal, encoders, etc.) are also protected.



Large motors over 750 kW

In these motors and generators, the shafts and bearings are subjected to much greater electrical currents and therefore require high-performance AEGIS SGR™. High-frequency currents cause bearing damage and catastrophic machine failures.

- Installation of AEGIS iPRO™ (Special design with increased number of fibres, see page 14) at both ends of the motor or generator, with no further insulation.
- When using insulated bearings, install AEGIS iPRO™ at the horizontal side in order to protect the non-insulated bearing.





Standard mounting brackets with brackets

Shaft diameter: 8 mm to 153 mm

Delivery unit with mounting brackets, bolts and washers

Fast and easy mounting, generally on the exterior of the housing



Mounting with holes and countersunk screws

Shaft diameter: 8 mm to 153 mm

M3 x 14 countersunk screws

2 holes for shaft diameters up to 99 mm

3 holes for larger diameter



Mounting by pressing

Shaft diameter 8 mm to 153 mm

0.102 mm manufacturing accuracy of the moulded part

Variable manufacturing size

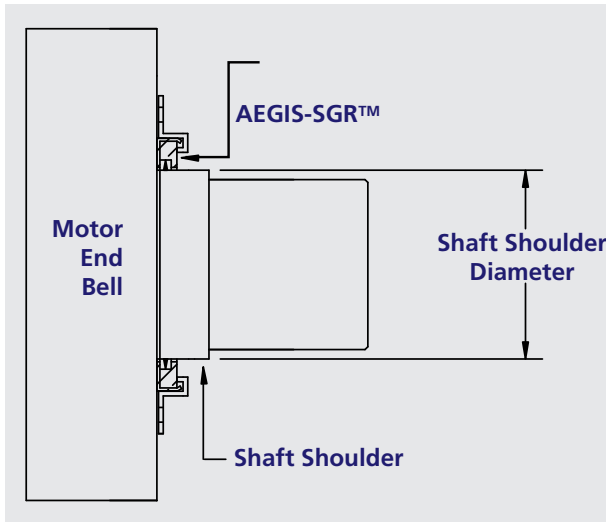


Split design

Shaft diameter: 8 mm to 153 mm

4-6 mounting brackets, screws and washers

Mounting without dismantling the motor



Choosing the right size for the SGR motor

- Measure the shaft diameter at a distance of 3 mm from the end bearing shield.
- Refer to the SGR dimensions table to select the correct part number.

Installation

For trouble-free operation and optimal protection, install as follows:

- The AEGIS SGR™ must be firmly mounted to the motor housing to ensure the best possible grounding.
- The brush housing must be mounted centrally so that all fibres are in permanent contact with the shaft.

Step 1:

Slide the AEGIS SGR™ over the shaft. Ensure a centred mounting. All fibres must be in permanent contact with the shaft.

Step 2:

Drill and tap threaded holes in the motor housing to a depth of 6 mm.

Step 3:

Mount the AEGIS SGR™ with the screws and mounting brackets onto the motor housing.

The AEGIS SGR™ bearing protection ring is the most effective solution for protecting bearings in motors and connected equipment from EDM currents and high-frequency circulating currents.

Catalogue number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-74.7-2	75.8	76.7	104.1	7.1
SGR-75.7-2	76.8	77.7	104.1	7.1
SGR-76.7-2	77.8	78.9	104.1	7.1
SGR-77.9-2	79.0	79.9	104.1	7.1
SGR-78.9-2	80.0	80.9	104.1	7.1

Shaft diameter = 78 mm





Standard mounting with brackets

Catalogue number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-6.9-2	7.9	9.0	40.6	7.1
SGR-8.0-2	9.1	10.0	40.6	7.1
SGR-9.0-2	10.1	11.0	40.6	7.1
SGR-10.1-2	11.1	12.2	40.6	7.1
SGR-11.2-2	12.3	13.2	40.6	7.1
SGR-12.2-2	13.3	14.2	40.6	7.1
SGR-13.2-2	14.3	15.4	40.6	7.1
SGR-14.4-2	15.5	16.4	40.6	7.1
SGR-15.4-2	16.5	17.4	53.3	7.1
SGR-16.4-2	17.5	18.5	53.3	7.1
SGR-17.6-2	18.6	19.7	53.3	7.1
SGR-18.7-2	19.8	20.7	53.3	7.1
SGR-19.7-2	20.8	21.7	53.3	7.1
SGR-20.7-2	21.8	22.7	53.3	7.1
SGR-21.7-2	22.8	23.7	53.3	7.1
SGR-22.8-2	23.8	24.9	53.3	7.1
SGR-23.9-2	25.0	25.9	53.3	7.1
SGR-24.9-2	26.0	26.9	53.3	7.1
SGR-25.9-2	27.0	28.1	53.3	7.1
SGR-27.1-2	28.2	29.1	53.3	7.1
SGR-28.1-2	29.2	30.1	53.3	7.1
SGR-29.1-2	30.2	31.2	53.3	7.1
SGR-30.3-2	31.3	32.3	53.3	7.1
SGR-31.3-2	32.4	33.3	53.3	7.1
SGR-32.3-2	33.4	34.4	53.3	7.1
SGR-33.4-2	34.5	35.4	53.3	7.1
SGR-34.4-2	35.5	36.4	68.1	6.6
SGR-35.5-2	36.5	37.6	68.1	6.6
SGR-36.6-2	37.7	38.6	68.1	6.6
SGR-37.6-2	38.7	39.6	68.1	6.6
SGR-38.6-2	39.7	40.8	68.1	6.6
SGR-39.8-2	40.9	41.8	68.1	6.6
SGR-40.8-2	41.9	42.8	68.1	6.6
SGR-41.8-2	42.9	43.9	68.1	6.6
SGR-43.0-2	44.0	45.0	68.1	6.6
SGR-44.0-2	45.1	46.0	68.1	6.6
SGR-45.0-2	46.1	47.1	68.1	6.6
SGR-46.1-2	47.2	48.1	68.1	6.6
SGR-47.1-2	48.2	49.1	68.1	6.6
SGR-48.2-2	49.2	50.3	68.1	6.6
SGR-49.3-2	50.4	51.3	68.1	6.6
SGR-50.3-2	51.4	52.3	78.7	7.1
SGR-51.3-2	52.4	53.5	78.7	7.1
SGR-52.5-2	53.6	54.5	78.7	7.1
SGR-53.5-2	54.6	55.5	78.7	7.1
SGR-54.5-2	55.6	56.6	78.7	7.1
SGR-55.7-2	56.7	57.7	78.7	7.1
SGR-56.7-2	57.8	58.7	78.7	7.1
SGR-57.7-2	58.8	59.8	78.7	7.1
SGR-58.8-2	59.9	60.8	78.7	7.1
SGR-59.8-2	60.9	61.8	91.4	7.1
SGR-60.9-2	61.9	63.0	91.4	7.1
SGR-62.0-2	63.1	64.0	91.4	7.1
SGR-63.0-2	64.1	65.0	91.4	7.1
SGR-64.0-2	65.1	66.2	91.4	7.1
SGR-65.2-2	66.3	67.2	91.4	7.1
SGR-66.2-2	67.3	68.2	91.4	7.1
SGR-67.2-2	68.3	69.3	91.4	7.1
SGR-68.4-2	69.4	70.4	91.4	7.1
SGR-69.4-2	70.5	71.4	91.4	7.1
SGR-70.4-2	71.5	72.5	91.4	7.1
SGR-71.5-2	72.6	73.5	91.4	7.1
SGR-72.5-2	73.6	74.5	104.1	7.1
SGR-73.6-2	74.6	75.7	104.1	7.1
SGR-74.7-2	75.8	76.7	104.1	7.1
SGR-75.7-2	76.8	77.7	104.1	7.1
SGR-76.7-2	77.8	78.9	104.1	7.1
SGR-77.9-2	79.0	79.9	104.1	7.1
SGR-78.9-2	80.0	80.9	104.1	7.1

Catalogue number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-79.9-2	81.0	82.0	104.1	7.1
SGR-81.1-2	82.1	83.1	104.1	7.1
SGR-82.1-2	83.2	84.1	104.1	7.1
SGR-83.1-2	84.2	85.2	104.1	7.1
SGR-84.2-2	85.3	86.2	104.1	7.1
SGR-85.2-2	86.3	87.2	116.8	7.1
SGR-86.3-2	87.3	88.4	116.8	7.1
SGR-87.4-2	88.5	89.4	116.8	7.1
SGR-88.4-2	89.5	90.4	116.8	7.1
SGR-89.4-2	90.5	91.6	116.8	7.1
SGR-90.6-2	91.7	92.6	116.8	7.1
SGR-91.6-2	92.7	93.6	116.8	7.1
SGR-92.6-2	93.7	94.7	116.8	7.1
SGR-93.8-2	94.8	95.8	116.8	7.1
SGR-94.8-2	95.9	96.8	116.8	7.1
SGR-95.8-2	96.9	97.9	116.8	7.1
SGR-96.9-2	98.0	98.9	116.8	7.1
SGR-97.9-2	99.0	99.9	129.5	7.1
SGR-99.0-2	100.0	101.1	129.5	7.1
SGR-100.1-2	101.2	102.1	129.5	7.1
SGR-101.1-2	102.2	103.1	129.5	7.1
SGR-102.1-2	103.2	104.3	129.5	7.1
SGR-103.3-2	104.4	105.3	129.5	7.1
SGR-104.3-2	105.4	106.3	129.5	7.1
SGR-105.3-2	106.4	107.4	129.5	7.1
SGR-106.5-2	107.5	108.5	129.5	7.1
SGR-107.5-2	108.6	109.5	129.5	7.1
SGR-108.5-2	109.6	110.6	129.5	7.1
SGR-109.6-2	110.7	111.6	129.5	7.1
SGR-110.6-2	111.7	112.6	142.2	7.1
SGR-111.7-2	112.7	113.8	142.2	7.1
SGR-112.8-2	113.9	114.8	142.2	7.1
SGR-113.8-2	114.9	115.8	142.2	7.1
SGR-114.8-2	115.9	117.0	142.2	7.1
SGR-116.0-2	117.1	118.0	142.2	7.1
SGR-117.0-2	118.1	119.0	142.2	7.1
SGR-118.0-2	119.1	120.1	142.2	7.1
SGR-119.2-2	120.2	121.2	142.2	7.1
SGR-120.2-2	121.3	122.2	142.2	7.1
SGR-121.2-2	122.3	123.3	142.2	7.1
SGR-122.3-2	123.4	124.3	142.2	7.1
SGR-123.3-2	124.4	125.3	154.9	7.1
SGR-124.4-2	125.4	126.5	154.9	7.1
SGR-125.5-2	126.6	127.5	154.9	7.1
SGR-126.5-2	127.6	128.5	154.9	7.1
SGR-127.5-2	128.6	129.7	154.9	7.1
SGR-128.7-2	129.8	130.7	154.9	7.1
SGR-129.7-2	130.8	131.7	154.9	7.1
SGR-130.7-2	131.8	132.8	154.9	7.1
SGR-131.9-2	132.9	133.9	154.9	7.1
SGR-132.9-2	134.0	134.9	154.9	7.1
SGR-133.9-2	135.0	136.0	154.9	7.1
SGR-135.0-2	136.1	137.0	154.9	7.1
SGR-136.0-2	137.1	138.0	167.6	7.1
SGR-137.1-2	138.1	139.2	167.6	7.1
SGR-138.2-2	139.3	140.2	167.6	7.1
SGR-139.2-2	140.3	141.2	167.6	7.1
SGR-140.2-2	141.3	142.4	167.6	7.1
SGR-141.4-2	142.5	143.4	167.6	7.1
SGR-142.4-2	143.5	144.4	167.6	7.1
SGR-143.4-2	144.5	145.5	167.6	7.1
SGR-144.6-2	145.6	146.6	167.6	7.1
SGR-145.6-2	146.7	147.6	167.6	7.1
SGR-146.6-2	147.7	148.7	167.6	7.1
SGR-147.7-2	148.8	149.7	167.6	7.1
SGR-148.7-2	149.8	150.7	180.3	7.1
SGR-149.8-2	150.8	151.9	180.3	7.1
SGR-150.9-2	152.0	152.9	180.3	7.1

Set of mounting brackets, M3 screws and washers



Mounting with holes and countersunk screws

Catalogue number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-6.9-3	7.9	9.0	40.6	7.1
SGR-8.0-3	9.1	10.0	40.6	7.1
SGR-9.0-3	10.1	11.0	40.6	7.1
SGR-10.1-3	11.1	12.2	40.6	7.1
SGR-11.2-3	12.3	13.2	40.6	7.1
SGR-12.2-3	13.3	14.2	40.6	7.1
SGR-13.2-3	14.3	15.4	40.6	7.1
SGR-14.4-3	15.5	16.4	40.6	7.1
SGR-15.4-3	16.5	17.4	53.3	7.1
SGR-16.4-3	17.5	18.5	53.3	7.1
SGR-17.6-3	18.6	19.7	53.3	7.1
SGR-18.7-3	19.8	20.7	53.3	7.1
SGR-19.7-3	20.8	21.7	53.3	7.1
SGR-20.7-3	21.8	22.7	53.3	7.1
SGR-21.7-3	22.8	23.7	53.3	7.1
SGR-22.8-3	23.8	24.9	53.3	7.1
SGR-23.9-3	25.0	25.9	53.3	7.1
SGR-24.9-3	26.0	26.9	53.3	7.1
SGR-25.9-3	27.0	28.1	53.3	7.1
SGR-27.1-3	28.2	29.1	53.3	7.1
SGR-28.1-3	29.2	30.1	53.3	7.1
SGR-29.1-3	30.2	31.2	53.3	7.1
SGR-30.3-3	31.3	32.3	53.3	7.1
SGR-31.3-3	32.4	33.3	53.3	7.1
SGR-32.3-3	33.4	34.4	53.3	7.1
SGR-33.4-3	34.5	35.4	53.3	7.1
SGR-34.4-3	35.5	36.4	68.1	6.6
SGR-35.5-3	36.5	37.6	68.1	6.6
SGR-36.6-3	37.7	38.6	68.1	6.6
SGR-37.6-3	38.7	39.6	68.1	6.6
SGR-38.6-3	39.7	40.8	68.1	6.6
SGR-39.8-3	40.9	41.8	68.1	6.6
SGR-40.8-3	41.9	42.8	68.1	6.6
SGR-41.8-3	42.9	43.9	68.1	6.6
SGR-43.0-3	44.0	45.0	68.1	6.6
SGR-44.0-3	45.1	46.0	68.1	6.6
SGR-45.0-3	46.1	47.1	68.1	6.6
SGR-46.1-3	47.2	48.1	68.1	6.6
SGR-47.1-3	48.2	49.1	68.1	6.6
SGR-48.2-3	49.2	50.3	68.1	6.6
SGR-49.3-3	50.4	51.3	68.1	6.6
SGR-50.3-3	51.4	52.3	78.7	7.1
SGR-51.3-3	52.4	53.5	78.7	7.1
SGR-52.5-3	53.6	54.5	78.7	7.1
SGR-53.5-3	54.6	55.5	78.7	7.1
SGR-54.5-3	55.6	56.6	78.7	7.1
SGR-55.7-3	56.7	57.7	78.7	7.1
SGR-56.7-3	57.8	58.7	78.7	7.1
SGR-57.7-3	58.8	59.8	78.7	7.1
SGR-58.8-3	59.9	60.8	78.7	7.1
SGR-59.8-3	60.9	61.8	91.4	7.1
SGR-60.9-3	61.9	63.0	91.4	7.1
SGR-62.0-3	63.1	64.0	91.4	7.1
SGR-63.0-3	64.1	65.0	91.4	7.1
SGR-64.0-3	65.1	66.2	91.4	7.1
SGR-65.2-3	66.3	67.2	91.4	7.1
SGR-66.2-3	67.3	68.2	91.4	7.1
SGR-67.2-3	68.3	69.3	91.4	7.1
SGR-68.4-3	69.4	70.4	91.4	7.1
SGR-69.4-3	70.5	71.4	91.4	7.1
SGR-70.4-3	71.5	72.5	91.4	7.1
SGR-71.5-3	72.6	73.5	91.4	7.1
SGR-72.5-3	73.6	74.5	104.1	7.1
SGR-73.6-3	74.6	75.7	104.1	7.1
SGR-74.7-3	75.8	76.7	104.1	7.1
SGR-75.7-3	76.8	77.7	104.1	7.1
SGR-76.7-3	77.8	78.9	104.1	7.1
SGR-77.9-3	79.0	79.9	104.1	7.1
SGR-78.9-3	80.0	80.9	104.1	7.1

Catalogue number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-79.9-3	81.0	82.0	104.1	7.1
SGR-81.1-3	82.1	83.1	104.1	7.1
SGR-82.1-3	83.2	84.1	104.1	7.1
SGR-83.1-3	84.2	85.2	104.1	7.1
SGR-84.2-3	85.3	86.2	104.1	7.1
SGR-85.2-3	86.3	87.2	116.8	7.1
SGR-86.3-3	87.3	88.4	116.8	7.1
SGR-87.4-3	88.5	89.4	116.8	7.1
SGR-88.4-3	89.5	90.4	116.8	7.1
SGR-89.4-3	90.5	91.6	116.8	7.1
SGR-90.6-3	91.7	92.6	116.8	7.1
SGR-91.6-3	92.7	93.6	116.8	7.1
SGR-92.6-3	93.7	94.7	116.8	7.1
SGR-93.8-3	94.8	95.8	116.8	7.1
SGR-94.8-3	95.9	96.8	116.8	7.1
SGR-95.8-3	96.9	97.9	116.8	7.1
SGR-96.9-3	98.0	98.9	116.8	7.1
SGR-97.9-3	99.0	99.9	129.5	7.1
SGR-99.0-3	100.0	101.1	129.5	7.1
SGR-100.1-3	101.2	102.1	129.5	7.1
SGR-101.1-3	102.2	103.1	129.5	7.1
SGR-102.1-3	103.2	104.3	129.5	7.1
SGR-103.3-3	104.4	105.3	129.5	7.1
SGR-104.3-3	105.4	106.3	129.5	7.1
SGR-105.3-3	106.4	107.4	129.5	7.1
SGR-106.5-3	107.5	108.5	129.5	7.1
SGR-107.5-3	108.6	109.5	129.5	7.1
SGR-108.5-3	109.6	110.6	129.5	7.1
SGR-109.6-3	110.7	111.6	129.5	7.1
SGR-110.6-3	111.7	112.6	142.2	7.1
SGR-111.7-3	112.7	113.8	142.2	7.1
SGR-112.8-3	113.9	114.8	142.2	7.1
SGR-113.8-3	114.9	115.8	142.2	7.1
SGR-114.8-3	115.9	117.0	142.2	7.1
SGR-116.0-3	117.1	118.0	142.2	7.1
SGR-117.0-3	118.1	119.0	142.2	7.1
SGR-118.0-3	119.1	120.1	142.2	7.1
SGR-119.2-3	120.2	121.2	142.2	7.1
SGR-120.2-3	121.3	122.2	142.2	7.1
SGR-121.2-3	122.3	123.3	142.2	7.1
SGR-122.3-3	123.4	124.3	142.2	7.1
SGR-123.3-3	124.4	125.3	154.9	7.1
SGR-124.4-3	125.4	126.5	154.9	7.1
SGR-125.5-3	126.6	127.5	154.9	7.1
SGR-126.5-3	127.6	128.5	154.9	7.1
SGR-127.5-3	128.6	129.7	154.9	7.1
SGR-128.7-3	129.8	130.7	154.9	7.1
SGR-129.7-3	130.8	131.7	154.9	7.1
SGR-130.7-3	131.8	132.8	154.9	7.1
SGR-131.9-3	132.9	133.9	154.9	7.1
SGR-132.9-3	134.0	134.9	154.9	7.1
SGR-133.9-3	135.0	136.0	154.9	7.1
SGR-135.0-3	136.1	137.0	154.9	7.1
SGR-136.0-3	137.1	138.0	167.6	7.1
SGR-137.1-3	138.1	139.2	167.6	7.1
SGR-138.2-3	139.3	140.2	167.6	7.1
SGR-139.2-3	140.3	141.2	167.6	7.1
SGR-140.2-3	141.3	142.4	167.6	7.1
SGR-141.4-3	142.5	143.4	167.6	7.1
SGR-142.4-3	143.5	144.4	167.6	7.1
SGR-143.4-3	144.5	145.5	167.6	7.1
SGR-144.6-3	145.6	146.6	167.6	7.1
SGR-145.6-3	146.7	147.6	167.6	7.1
SGR-146.6-3	147.7	148.7	167.6	7.1
SGR-147.7-3	148.8	149.7	167.6	7.1
SGR-148.7-3	149.8	150.7	180.3	7.1
SGR-149.8-3	150.8	151.9	180.3	7.1
SGR-150.9-3	152.0	152.9	180.3	7.1

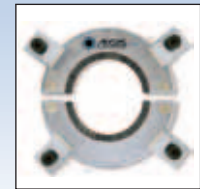
Set of M3 x screws and washers



Mounting by pressing

Catalogue number	Min. shaft diameter	Max. shaft diameter	SGR outer diameter Tolerance +0/-0.025	Thick-ness	Bore diameter Tolerance +0.025/-0
SGR-6.9-0A6	7.9	9.0	40.132	7.1	40.030
SGR-8.0-0A6	9.1	10.0	40.132	7.1	40.030
SGR-9.0-0A6	10.1	11.0	40.132	7.1	40.030
SGR-10.1-0A6	11.1	12.2	40.132	7.1	40.030
SGR-11.2-0A6	12.3	13.2	40.132	7.1	40.030
SGR-12.2-0A6	13.3	14.2	40.132	7.1	40.030
SGR-13.2-0A6	14.3	15.4	40.132	7.1	40.030
SGR-14.4-0A6	15.5	16.4	40.132	7.1	40.030
SGR-15.4-0A6	16.5	17.4	52.832	7.1	52.730
SGR-16.4-0A6	17.5	18.5	52.832	7.1	52.730
SGR-17.6-0A6	18.6	19.7	52.832	7.1	52.730
SGR-18.7-0A6	19.8	20.7	52.832	7.1	52.730
SGR-19.7-0A6	20.8	21.7	52.832	7.1	52.730
SGR-20.7-0A6	21.8	22.7	52.832	7.1	52.730
SGR-21.7-0A6	22.8	23.7	52.832	7.1	52.730
SGR-22.8-0A6	23.8	24.9	52.832	7.1	52.730
SGR-23.9-0A6	25.0	25.9	52.832	7.1	52.730
SGR-24.9-0A6	26.0	26.9	52.832	7.1	52.730
SGR-25.9-0A6	27.0	28.1	52.832	7.1	52.730
SGR-27.1-0A6	28.2	29.1	52.832	7.1	52.730
SGR-28.1-0A6	29.2	30.1	52.832	7.1	52.730
SGR-29.1-0A6	30.2	31.2	52.832	7.1	52.730
SGR-30.3-0A6	31.3	32.3	52.832	7.1	52.730
SGR-31.3-0A6	32.4	33.3	52.832	7.1	52.730
SGR-32.3-0A6	33.4	34.4	52.832	7.1	52.730
SGR-33.4-0A6	34.5	35.4	52.832	7.1	52.730
SGR-34.4-0A6	35.5	36.4	67.564	6.6	67.462
SGR-35.5-0A6	36.5	37.6	67.564	6.6	67.462
SGR-36.6-0A6	37.7	38.6	67.564	6.6	67.462
SGR-37.6-0A6	38.7	39.6	67.564	6.6	67.462
SGR-38.6-0A6	39.7	40.8	67.564	6.6	67.462
SGR-39.8-0A6	40.9	41.8	67.564	6.6	67.462
SGR-40.8-0A6	41.9	42.8	67.564	6.6	67.462
SGR-41.8-0A6	42.9	43.9	67.564	6.6	67.462
SGR-43.0-0A6	44.0	45.0	67.564	6.6	67.462
SGR-44.0-0A6	45.1	46.0	67.564	6.6	67.462
SGR-45.0-0A6	46.1	47.1	67.564	6.6	67.462
SGR-46.1-0A6	47.2	48.1	67.564	6.6	67.490
SGR-47.1-0A6	48.2	49.1	67.564	6.6	67.462
SGR-48.2-0A6	49.2	50.3	67.564	6.6	67.462
SGR-49.3-0A6	50.4	51.3	67.564	6.6	67.462
SGR-50.3-0A6	51.4	52.3	78.232	7.1	78.130
SGR-51.3-0A6	52.4	53.5	78.232	7.1	78.130
SGR-52.5-0A6	53.6	54.5	78.232	7.1	78.130
SGR-53.5-0A6	54.6	55.5	78.232	7.1	78.130
SGR-54.5-0A6	55.6	56.6	78.232	7.1	78.130
SGR-55.7-0A6	56.7	57.7	78.232	7.1	78.130
SGR-56.7-0A6	57.8	58.7	78.232	7.1	78.130
SGR-57.7-0A6	58.8	59.8	78.232	7.1	78.130
SGR-58.8-0A6	59.9	60.8	78.232	7.1	78.130
SGR-59.8-0A6	60.9	61.8	90.932	7.1	90.830
SGR-60.9-0A6	61.9	63.0	90.932	7.1	90.830
SGR-62.0-0A6	63.1	64.0	90.932	7.1	90.830
SGR-63.0-0A6	64.1	65.0	90.932	7.1	90.830
SGR-64.0-0A6	65.1	66.2	90.932	7.1	90.830
SGR-65.2-0A6	66.3	67.2	90.932	7.1	90.830
SGR-66.2-0A6	67.3	68.2	90.932	7.1	90.830
SGR-67.2-0A6	68.3	69.3	90.932	7.1	90.830
SGR-68.4-0A6	69.4	70.4	90.932	7.1	90.830
SGR-69.4-0A6	70.5	71.4	90.932	7.1	90.830
SGR-70.4-0A6	71.5	72.5	90.932	7.1	90.830
SGR-71.5-0A6	72.6	73.5	90.932	7.1	90.830
SGR-72.5-0A6	73.6	74.5	103.632	7.1	103.530
SGR-73.6-0A6	74.6	75.7	103.632	7.1	103.530
SGR-74.7-0A6	75.8	76.7	103.632	7.1	103.530
SGR-75.7-0A6	76.8	77.7	103.632	7.1	103.530
SGR-76.7-0A6	77.8	78.9	103.632	7.1	103.530
SGR-77.9-0A6	79.0	79.9	103.632	7.1	103.530
SGR-78.9-0A6	80.0	80.9	103.632	7.1	103.530

Catalogue number	Min. shaft diameter	Max. shaft diameter	SGR outer diameter Tolerance +0/-0.025	Thick-ness	Bore diameter Tolerance +0.025/-0
SGR-79.9-0A6	81.0	82.0	103.632	7.1	103.530
SGR-81.1-0A6	82.1	83.1	103.632	7.1	103.530
SGR-82.1-0A6	83.2	84.1	103.632	7.1	103.530
SGR-83.1-0A6	84.2	85.2	103.632	7.1	103.530
SGR-84.2-0A6	85.3	86.2	103.632	7.1	103.530
SGR-85.2-0A6	86.3	87.2	116.332	7.1	116.230
SGR-86.3-0A6	87.3	88.4	116.332	7.1	116.230
SGR-87.4-0A6	88.5	89.4	116.332	7.1	116.230
SGR-88.4-0A6	89.5	90.4	116.332	7.1	116.230
SGR-89.4-0A6	90.5	91.6	116.332	7.1	116.230
SGR-90.6-0A6	91.7	92.6	116.332	7.1	116.230
SGR-91.6-0A6	92.7	93.6	116.332	7.1	116.230
SGR-92.6-0A6	93.7	94.7	116.332	7.1	116.230
SGR-93.8-0A6	94.8	95.8	116.332	7.1	116.230
SGR-94.8-0A6	95.9	96.8	116.332	7.1	116.230
SGR-95.8-0A6	96.9	97.9	116.332	7.1	116.230
SGR-96.9-0A6	98.0	98.9	116.332	7.1	116.230
SGR-97.9-0A6	99.0	99.9	129.032	7.1	128.930
SGR-99.0-0A6	100.0	101.1	129.032	7.1	128.930
SGR-100.1-0A6	101.2	102.1	129.032	7.1	128.930
SGR-101.1-0A6	102.2	103.1	129.032	7.1	128.930
SGR-102.1-0A6	103.2	104.3	129.032	7.1	128.930
SGR-103.3-0A6	104.4	105.3	129.032	7.1	128.930
SGR-104.3-0A6	105.4	106.3	129.032	7.1	128.930
SGR-105.3-0A6	106.4	107.4	129.032	7.1	128.930
SGR-106.5-0A6	107.5	108.5	129.032	7.1	128.930
SGR-107.5-0A6	108.6	109.5	129.032	7.1	128.930
SGR-108.5-0A6	109.6	110.6	129.032	7.1	128.930
SGR-109.6-0A6	110.7	111.6	129.032	7.1	128.930
SGR-110.6-0A6	111.7	112.6	141.732	7.1	141.630
SGR-111.7-0A6	112.7	113.8	141.732	7.1	141.630
SGR-112.8-0A6	113.9	114.8	141.732	7.1	141.630
SGR-113.8-0A6	114.9	115.8	141.732	7.1	141.630
SGR-114.8-0A6	115.9	117.0	141.732	7.1	141.630
SGR-116.0-0A6	117.1	118.0	141.732	7.1	141.630
SGR-117.0-0A6	118.1	119.0	141.732	7.1	141.630
SGR-118.0-0A6	119.1	120.1	141.732	7.1	141.630
SGR-119.2-0A6	120.2	121.2	141.732	7.1	141.630
SGR-120.2-0A6	121.3	122.2	141.732	7.1	141.630
SGR-121.2-0A6	122.3	123.3	141.732	7.1	141.630
SGR-122.3-0A6	123.4	124.3	141.732	7.1	141.630
SGR-123.3-0A6	124.4	125.3	154.432	7.1	154.330
SGR-124.4-0A6	125.4	126.5	154.432	7.1	154.330
SGR-125.5-0A6	126.6	127.5	154.432	7.1	154.330
SGR-126.5-0A6	127.6	128.5	154.432	7.1	154.330
SGR-127.5-0A6	128.6	129.7	154.432	7.1	154.330
SGR-128.7-0A6	129.8	130.7	154.432	7.1	154.330
SGR-129.7-0A6	130.8	131.7	154.432	7.1	154.330
SGR-130.7-0A6	131.8	132.8	154.432	7.1	154.330
SGR-131.9-0A6	132.9	133.9	154.432	7.1	154.330
SGR-132.9-0A6	134.0	134.9	154.432	7.1	154.330
SGR-133.9-0A6	135.0	136.0	154.432	7.1	154.330
SGR-135.0-0A6	136.1	137.0	154.432	7.1	154.330
SGR-136.0-0A6	137.1	138.0	167.132	7.1	167.030
SGR-137.1-0A6	138.1	139.2	167.132	7.1	167.030
SGR-138.2-0A6	139.3	140.2	167.132	7.1	167.030
SGR-139.2-0A6	140.3	141.2	167.132	7.1	167.030
SGR-140.2-0A6	141.3	142.4	167.132	7.1	167.030
SGR-141.4-0A6	142.5	143.4	167.132	7.1	167.030
SGR-142.4-0A6	143.5	144.4	167.132	7.1	167.030
SGR-143.4-0A6	144.5	145.5	167.132	7.1	167.030
SGR-144.6-0A6	145.6	146.6	167.132	7.1	167.030
SGR-145.6-0A6	146.7	147.6	167.132	7.1	167.030
SGR-146.6-0A6	147.7	148.7	167.132	7.1	167.030
SGR-147.7-0A6	148.8	149.7	167.132	7.1	167.030
SGR-148.7-0A6	149.8	150.7	179.832	7.1	179.730
SGR-149.8-0A6	150.8	151.9	179.832	7.1	179.730
SGR-150.9-0A6	152.0	152.9	179.832	7.1	179.730



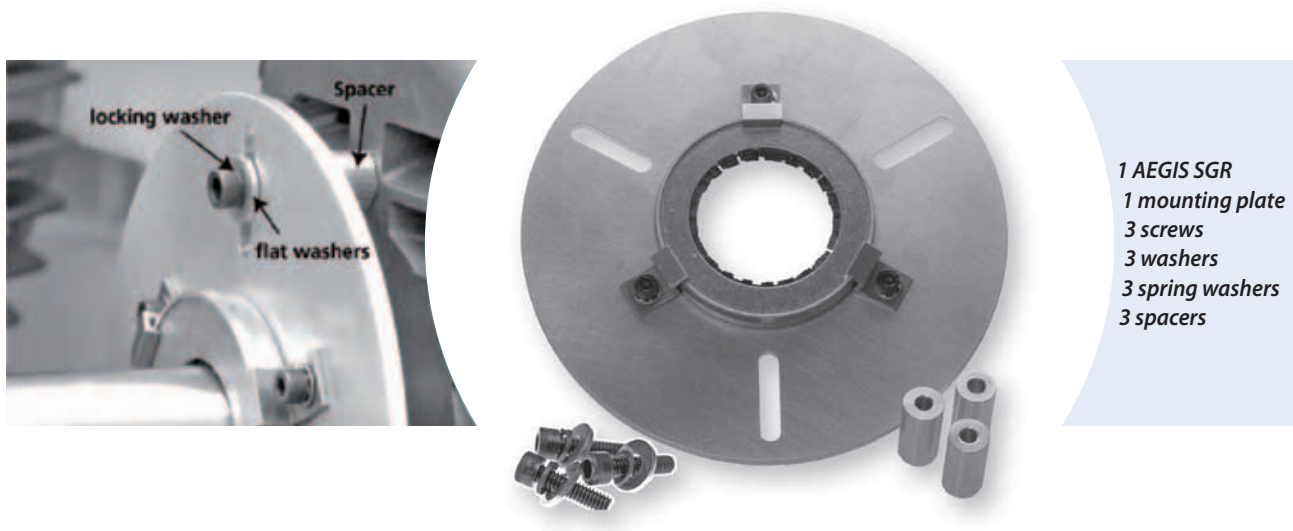
Split design

Catalogue Number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-6.9-2A4	7.9	9.0	40.6	7.1
SGR-8.0-2A4	9.1	10.0	40.6	7.1
SGR-9.0-2A4	10.1	11.0	40.6	7.1
SGR-10.1-2A4	11.1	12.2	40.6	7.1
SGR-11.2-2A4	12.3	13.2	40.6	7.1
SGR-12.2-2A4	13.3	14.2	40.6	7.1
SGR-13.2-2A4	14.3	15.4	40.6	7.1
SGR-14.4-2A4	15.5	16.4	40.6	7.1
SGR-15.4-2A4	16.5	17.4	53.3	7.1
SGR-16.4-2A4	17.5	18.5	53.3	7.1
SGR-17.6-2A4	18.6	19.7	53.3	7.1
SGR-18.7-2A4	19.8	20.7	53.3	7.1
SGR-19.7-2A4	20.8	21.7	53.3	7.1
SGR-20.7-2A4	21.8	22.7	53.3	7.1
SGR-21.7-2A4	22.8	23.7	53.3	7.1
SGR-22.8-2A4	23.8	24.9	53.3	7.1
SGR-23.9-2A4	25.0	25.9	53.3	7.1
SGR-24.9-2A4	26.0	26.9	53.3	7.1
SGR-25.9-2A4	27.0	28.1	53.3	7.1
SGR-27.1-2A4	28.2	29.1	53.3	7.1
SGR-28.1-2A4	29.2	30.1	53.3	7.1
SGR-29.1-2A4	30.2	31.2	53.3	7.1
SGR-30.3-2A4	31.3	32.3	53.3	7.1
SGR-31.3-2A4	32.4	33.3	53.3	7.1
SGR-32.3-2A4	33.4	34.4	53.3	7.1
SGR-33.4-2A4	34.5	35.4	53.3	7.1
SGR-34.4-2A4	35.5	36.4	68.1	6.6
SGR-35.5-2A4	36.5	37.6	68.1	6.6
SGR-36.6-2A4	37.7	38.6	68.1	6.6
SGR-37.6-2A4	38.7	39.6	68.1	6.6
SGR-38.6-2A4	39.7	40.8	68.1	6.6
SGR-39.8-2A4	40.9	41.8	68.1	6.6
SGR-40.8-2A4	41.9	42.8	68.1	6.6
SGR-41.8-2A4	42.9	43.9	68.1	6.6
SGR-43.0-2A4	44.0	45.0	68.1	6.6
SGR-44.0-2A4	45.1	46.0	68.1	6.6
SGR-45.0-2A4	46.1	47.1	68.1	6.6
SGR-46.1-2A4	47.2	48.1	68.1	6.6
SGR-47.1-2A4	48.2	49.1	68.1	6.6
SGR-48.2-2A4	49.2	50.3	68.1	6.6
SGR-49.3-2A4	50.4	51.3	68.1	6.6
SGR-50.3-2A4	51.4	52.3	78.7	7.1
SGR-51.3-2A4	52.4	53.5	78.7	7.1
SGR-52.5-2A4	53.6	54.5	78.7	7.1
SGR-53.5-2A4	54.6	55.5	78.7	7.1
SGR-54.5-2A4	55.6	56.6	78.7	7.1
SGR-55.7-2A4	56.7	57.7	78.7	7.1
SGR-56.7-2A4	57.8	58.7	78.7	7.1
SGR-57.7-2A4	58.8	59.8	78.7	7.1
SGR-58.8-2A4	59.9	60.8	78.7	7.1
SGR-59.8-2A4	60.9	61.8	91.4	7.1
SGR-60.9-2A4	61.9	63.0	91.4	7.1
SGR-62.0-2A4	63.1	64.0	91.4	7.1
SGR-63.0-2A4	64.1	65.0	91.4	7.1
SGR-64.0-2A4	65.1	66.2	91.4	7.1
SGR-65.2-2A4	66.3	67.2	91.4	7.1
SGR-66.2-2A4	67.3	68.2	91.4	7.1
SGR-67.2-2A4	68.3	69.3	91.4	7.1
SGR-68.4-2A4	69.4	70.4	91.4	7.1
SGR-69.4-2A4	70.5	71.4	91.4	7.1
SGR-70.4-2A4	71.5	72.5	91.4	7.1
SGR-71.5-2A4	72.6	73.5	91.4	7.1
SGR-72.5-2A4	73.6	74.5	104.1	7.1
SGR-73.6-2A4	74.6	75.7	104.1	7.1
SGR-74.7-2A4	75.8	76.7	104.1	7.1
SGR-75.7-2A4	76.8	77.7	104.1	7.1
SGR-76.7-2A4	77.8	78.9	104.1	7.1
SGR-77.9-2A4	79.0	79.9	104.1	7.1
SGR-78.9-2A4	80.0	80.9	104.1	7.1

Catalogue Number	Min. shaft diameter	Max. shaft diameter	Outer diameter	Thickness
SGR-79.9-2A4	81.0	82.0	104.1	7.1
SGR-81.1-2A4	82.1	83.1	104.1	7.1
SGR-82.1-2A4	83.2	84.1	104.1	7.1
SGR-83.1-2A4	84.2	85.2	104.1	7.1
SGR-84.2-2A4	85.3	86.2	104.1	7.1
SGR-85.2-2A4	86.3	87.2	116.8	7.1
SGR-86.3-2A4	87.3	88.4	116.8	7.1
SGR-87.4-2A4	88.5	89.4	116.8	7.1
SGR-88.4-2A4	89.5	90.4	116.8	7.1
SGR-89.4-2A4	90.5	91.6	116.8	7.1
SGR-90.6-2A4	91.7	92.6	116.8	7.1
SGR-91.6-2A4	92.7	93.6	116.8	7.1
SGR-92.6-2A4	93.7	94.7	116.8	7.1
SGR-93.8-2A4	94.8	95.8	116.8	7.1
SGR-94.8-2A4	95.9	96.8	116.8	7.1
SGR-95.8-2A4	96.9	97.9	116.8	7.1
SGR-96.9-2A4	98.0	98.9	116.8	7.1
SGR-97.9-2A4	99.0	99.9	129.5	7.1
SGR-99.0-2A4	100.0	101.1	129.5	7.1
SGR-100.1-2A4	101.2	102.1	129.5	7.1
SGR-101.1-2A4	102.2	103.1	129.5	7.1
SGR-102.1-2A4	103.2	104.3	129.5	7.1
SGR-103.3-2A4	104.4	105.3	129.5	7.1
SGR-104.3-2A4	105.4	106.3	129.5	7.1
SGR-105.3-2A4	106.4	107.4	129.5	7.1
SGR-106.5-2A4	107.5	108.5	129.5	7.1
SGR-107.5-2A4	108.6	109.5	129.5	7.1
SGR-108.5-2A4	109.6	110.6	129.5	7.1
SGR-109.6-2A4	110.7	111.6	129.5	7.1
SGR-110.6-2A4	111.7	112.6	142.2	7.1
SGR-111.7-2A4	112.7	113.8	142.2	7.1
SGR-112.8-2A4	113.9	114.8	142.2	7.1
SGR-113.8-2A4	114.9	115.8	142.2	7.1
SGR-114.8-2A4	115.9	117.0	142.2	7.1
SGR-116.0-2A4	117.1	118.0	142.2	7.1
SGR-117.0-2A4	118.1	119.0	142.2	7.1
SGR-118.0-2A4	119.1	120.1	142.2	7.1
SGR-119.2-2A4	120.2	121.2	142.2	7.1
SGR-120.2-2A4	121.3	122.2	142.2	7.1
SGR-121.2-2A4	122.3	123.3	142.2	7.1
SGR-122.3-2A4	123.4	124.3	142.2	7.1
SGR-123.3-2A4	124.4	125.3	154.9	7.1
SGR-124.4-2A4	125.4	126.5	154.9	7.1
SGR-125.5-2A4	126.6	127.5	154.9	7.1
SGR-126.5-2A4	127.6	128.5	154.9	7.1
SGR-127.5-2A4	128.6	129.7	154.9	7.1
SGR-128.7-2A4	129.8	130.7	154.9	7.1
SGR-129.7-2A4	130.8	131.7	154.9	7.1
SGR-130.7-2A4	131.8	132.8	154.9	7.1
SGR-131.9-2A4	132.9	133.9	154.9	7.1
SGR-132.9-2A4	134.0	134.9	154.9	7.1
SGR-133.9-2A4	135.0	136.0	154.9	7.1
SGR-135.0-2A4	136.1	137.0	154.9	7.1
SGR-136.0-2A4	137.1	138.0	167.6	7.1
SGR-137.1-2A4	138.1	139.2	167.6	7.1
SGR-138.2-2A4	139.3	140.2	167.6	7.1
SGR-139.2-2A4	140.3	141.2	167.6	7.1
SGR-140.2-2A4	141.3	142.4	167.6	7.1
SGR-141.4-2A4	142.5	143.4	167.6	7.1
SGR-142.4-2A4	143.5	144.4	167.6	7.1
SGR-143.4-2A4	144.5	145.5	167.6	7.1
SGR-144.6-2A4	145.6	146.6	167.6	7.1
SGR-145.6-2A4	146.7	147.6	167.6	7.1
SGR-146.6-2A4	147.7	148.7	167.6	7.1
SGR-147.7-2A4	148.8	149.7	167.6	7.1
SGR-148.7-2A4	149.8	150.7	180.3	7.1
SGR-149.8-2A4	150.8	151.9	180.3	7.1
SGR-150.9-2A4	152.0	152.9	180.3	7.1

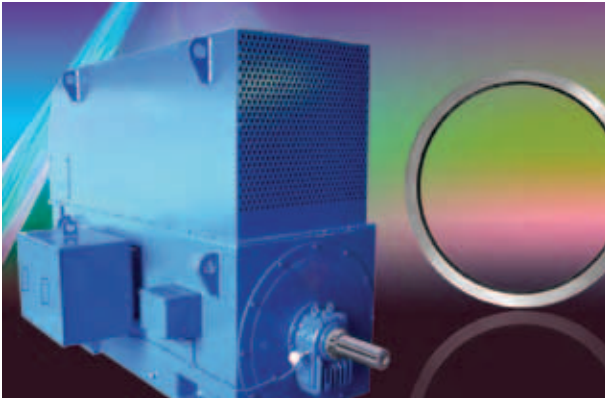
Set of 4 or 6 mounting brackets, M3 screws and washers

Easy selection and installation for any IEC motor size



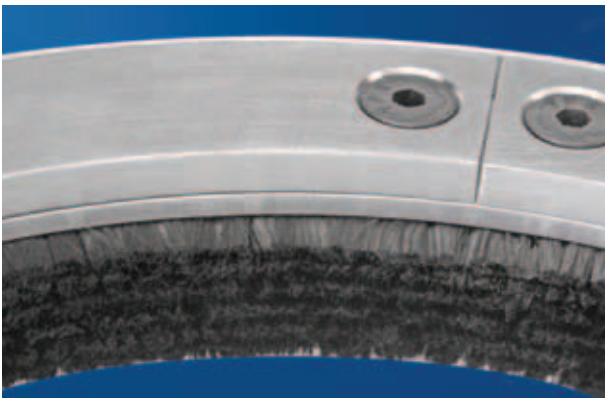
IEC Motors

Catalogue number	IEC shaft diameter	IEC Frame
SGR-19-IEC	19mm	IEC 80 (2, 4, 6, 8 pole)
SGR-24-IEC	24mm	IEC 90S, 90L (2, 4, 6, 8 pole)
SGR-28-IEC	28mm	IEC 100L, 112M (2, 4, 6, 8 pole)
SGR-38-IEC	38mm	IEC 132S, 132M (2, 4, 6, 8 pole)
SGR-42-IEC	42mm	IEC 160M, 160L (2, 4, 6, 8 pole)
SGR-48-IEC	48mm	IEC 180M, 180L (2, 4, 6, 8 pole)
SGR-55-IEC	55mm	IEC 200L (2, 4, 6, 8 pole) ; IEC 225S, 225M (2 pole)
SGR-60-IEC	60mm	IEC 225S, 225M (4, 6, 8 pole) ; IEC 250M (2 pole)
SGR-65-IEC	65mm	IEC 250M (4, 6, 8 pole); IEC 280M, 280S, 315S, 315M, 315L (2 pole)
SGR-75-IEC	75mm	IEC 280S, 280M (4, 6, 8 pole); IEC 355M, 355L (2 pole)
SGR-80-IEC	80mm	IEC 315S, 315M, 315L (4, 6, 8 pole)



AEGIS SGR™ for larger shaft diameters

- For up to 10 A continuous current
- For shaft diameters exceeding 152 mm
- Long life
- Maintenance-free
- Available with closed and split rings



AEGIS iPRO™ high-voltage bearing protection for large motors and generators

- Suitable for high-voltage 120 A continuous current and 3000 V peak voltage
- Long life
- Maintenance-free
- For use on shaft diameters of up to 762 mm

⚡ Bearing protection for motors and connected equipment

Only the **AEGIS SGR™** protects both motor bearings as well as the bearings in electrically connected equipment. The induced currents on the shaft can be discharged over the motor bearings or connected equipment such as gear units, pumps, fan bearings, bearing brackets, encoders, brake motors, etc. The **AEGIS SGR™** deals with the problem at its source and grounds harmful currents.

⚡ Life-long and maintenance-free bearing protection

When in operation, the hundreds of thousands of conductive microfibres suffer virtually no wear, even at high speeds. Unlike carbon brushes, there is no spring pressure on the fibres. The **AEGIS SGR™** is effective during the entire life cycle of the motor.

⚡ The AEGIS SGR™ also works effectively in environments with grease, oils, dirt and dust

Tested both in the laboratory and in the field. The conductive microfibres “sweep” pollutants from the shaft surface and remain highly effective, even if oil, grease, dirt or dust occurs on the shaft. The **AEGIS SGR™** is the only technology that is effective in contaminated environments.

⚡ Operation in harsh environments, where the fibres are exposed excessively to foreign particles

To avoid damage to the fibres from foreign bodies or particles, a centrifugal oil ring or O-ring should be installed.

⚡ Common motor applications

Fans, blowers, pumps, compressors, chillers, roof air-conditioning systems, heating and cooling, industrial processes, manufacturing processes, rail vehicles, clean rooms, laboratories, hospitals, universities, schools ... drive units are in use everywhere.

⚡ Conductivity of the AEGIS SGR™

The **AEGIS SGR™** was developed to discharge up to 10 A of high frequency current. Variable frequency controllers induce high frequency currents of up to 2 A in a 50-billionth of a second. The **AEGIS SGR™** protects the bearing by the safe discharge and grounding of these current flows from the motor.

⚡ High voltage applications

The **AEGIS iPRO™** is installed for applications with shaft currents exceeding 10A. The **AEGIS™ iPRO** enables the discharge of up to 120 A and 3000 V of peak voltage.

⚡ AEGIS SGR™ – the most reliable bearing protection

Production uptime and reliability are greatly increased by the installation of the **AEGIS SGR™**. The patented ring, with hundreds of thousands of conductive microfibres, provides protection for the entire life of the motor. The fibres also affect the motor running around the shaft, thus enabling a low ohm current path for the discharge of harmful shaft currents.

⚡ Fits practically any motor and any shaft diameter

The thin profile can be applied directly to the bearing flanges of most motors, even to vertical motors and hollow shaft pump motors. Easy-to-install IEC kits fit practically any shape of motor housing. Standard parts for all shaft diameters from 9 mm to 153 mm are available in a wide variety of mounting options. In addition, **AEGIS SGR™** is also available in special custom designs for larger shaft diameters.

MOTORS WITH CERAMIC BEARINGS

The use of hybrid or ceramic coated bearings in the motor does not prevent induced electrical currents from discharging through generators and presenting a danger. Whenever ceramic bearings in a motor are used, **AEGIS SGR™** is also required in order to protect electrically connected equipment and to reduce potentially harmful electrical currents on the shaft.

Technological comparison

	AEGIS SGR™	Insulated shaft	Ceramic bearings	Conductive lubricants	Carbon brushes	Copper brushes
Easy to install	Yes	No	n/y	n/y	No	No
Prolonged effectiveness	Yes	No*	No*	No	No	No
Life-cycle costs	low	low	high	high	high	High
Maintenance-free	Yes	yes	yes	no	no	No

* Shaft currents migrate in flanged components



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