

Integrated Starter Generator ISG

The Integrated Starter Generator (ISG) provides electric power to both the propulsion motor and vessel auxiliary loads. The generator is coupled directly to the engine crankshaft, resulting in a compact bearingless design. The generator is sized to convert all engine crankshaft power to electrical power for use by the system. This system's design and packaging makes it easily adaptable to various configurations and easy to install. The simple design reduces the cost of maintenance as well as the overall life cycle cost.



Integrated Starter Generator (ISG)

- Mechanically simple; long life
- Sensorless for improved reliability
- Eliminates conventional starter wear
- Installation flexibility: engine isn't mechanically connected to the driveline

Benefits

- Easy installation
- Reduced maintenance
- Reliable, low lifecycle cost
- WEG cooled. No separate oil cooler required
- Completely high-voltage protected for safety



Integrated Starter Generator (ISG) Ratings				
System	HDS100	HDS200	HDS300	HDS400
Model	ISG-100	ISG-200	ISG-300	ISG-400
Power				
Continuous	145 kW at 2100 rpm	200 kW at 2300 rpm	230 kW at 2000 rpm	350 kW at 1800 rpm
Torque				
Continuous	660 Nm (486 ft-lbs) 0 – 2100 rpm	830 Nm (610 ft-lbs) 0 – 2300 rpm	1100 Nm (810 ft-lbs) 0 – 2000 rpm	
Maximum Speed	2700 rpm	2700 rpm	2700 rpm	2700 rpm
Physical				
Length (beyond FWH)	6 in (155 mm)	6 in (155 mm)	6.3 in (160 mm)	10.5 in (267 mm)
Width	23.6 in (600 mm)	23.6 in (600 mm)	23.6 in (600 mm)	23.6 in (600 mm)
Height	23.6 in (600 mm)	23.6 in (600 mm)	23.6 in (600 mm)	23.6 in (600 mm)
Weight (wet)	237 lbs (107 kg) /+26 lbs (12 kg) for CWK	251 lbs (114 kg) /+26 lbs (12 kg) for CWK	300 lbs (136 kg) /+26 lbs (12 kg) for CWK	378 lbs (172 kg) /+26 lbs (12 kg) for CWK
Cooling	Jacket water ethylene (or propylene) -glycol, 15 gpm (57 lpm)			
Operating Temperature	Coolant: -40° to 95°F (-40° to 35°C) / External ambient: -40° to 149°F (-40° to 65°C)			

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