

# SGD80 Medium-voltage Motor Drivers

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Relying on extensive experience and technological accumulation in the field of ultra high power converter, Sungrow independently developed the SGD80 series of medium-voltage motor drivers, Including AC-DC-AC frequency converter and DC-AC common DC bus multi-axis motor drive unit. Supprot working in paralle, with liquid cooling and IP54.



### SGD80 Medium-voltage Motor Drivers

#### Overview

With AC-DC-AC motor drive and DC-AC common DC bus drive-energy feeding system.

Adopting modularized design, provide customers with combined unit cabinets of different power levels.

Adopting IGCT and Diode, with the features of ultra-high reliability, excellent heat dissipation and high power density.

Suitable for permanent magnet, asynchronous, doubly-fed and electro-excited synchronous motor, with V/F and vector control functions

#### Characteristics

∩1 Multi-function

 $Compatible \ with permanent \ magnet \ synchronous/asynchronous/doubly-fed/electro-excited \ synchronous \ motor.$ 

High efficiency

PWM rectifier unit, no harmonic pollution, unit power factor, full power energy bi-directional flow, high efficiency.

Unitary design

Flexible configuration and system integration for multiple application scenarios.

Unit capacity is 8MVA ~ 14MVA, support working in parallel.

C5 Efficient Protection

IGCT online fault diagnosis + direct fault protection.

Multiple control modes

V/F control, speed sensorless vector control (OLVC), speed sensor vector control(CLVC).

# Naming rule



Name: SGD80 Medium-voltage Drivers

Topology: 1S - single cabinet type; 1D - common bus parallel cabinet type;

2D - multi-machine parallel cabinet type

Rated capacity: rectifier/inverter capacity, unit 100kVA

Voltage level: input voltage, unit 0.1kV

Cooling method: A - Air cooling; L - Liquid cooling



## **Technical indicators**

Name	Category	Parameters	
PWM rectifier cabinet	Rated input voltage	3300Vac	
	Operating frequency	47~63Hz	
	Power factor	Be settable, default 1	
	Overload capacity	Rated current 110% continuously overload Rated current 120% 1min overload	
	Efficiency	≥98%(Rated operating confition)	
	Protection	Over/under voltage protection, over current protection, over temperature protection, over/under frequency protection, etc	
Inverter cabinet	Output voltage	3300Vac	
	Output frequency	≤110Hz	
	Overload capacity	Rated current 110% continuously overload Rated current 120% 1min overload	
	Speed ratio	V/F:1:50 OLVC:1:200 CLVC:1:1000	
	Rev accuracy	OLVC:0.2% CLVC:0.02%	
	Torque precision	OLVC: 5% CLVC: 5%	
	Torque response	≤5ms	
Mechanical parameters	IP grade	IP54	
	Anti-corrosion	C4-M	
	Cooling method	Liquid cooling	
Environmental condition	Operating temperature	-30~+50°C	
	Altitude	≤2000meters	

## **Products Models**

Models	Rated powe (MVA)	Rated current (A)	Dimensions W*H*D (mm)
SGD80-1D80/80-33L	8	1400	4600*2200*1400
SGD80-1D100/100-33L	10	1750	
SGD80-1D120/120-33L	12	2100	
SGD80-1D140/140-33L	14	2450	

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