

SCG series

Centrifugal refrigeration compressor

17460002

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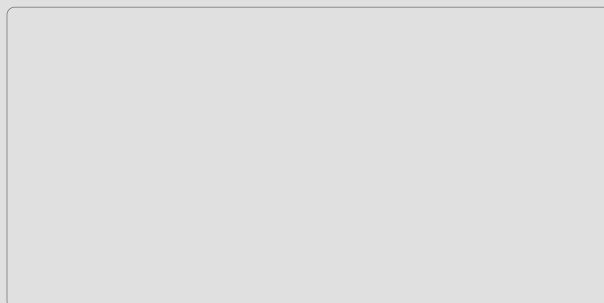
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Snowman reserves the right to change its products without notice in advance. The technical parameters shall be subject to order contract or technical appendix of the contract.

500 to 2000 refrigerating ton

Super-high efficiency

Environmentally friendly refrigerant R134a,
Positive pressure design and energy saving,
Large cooling capacity,
High efficiency and reliability.

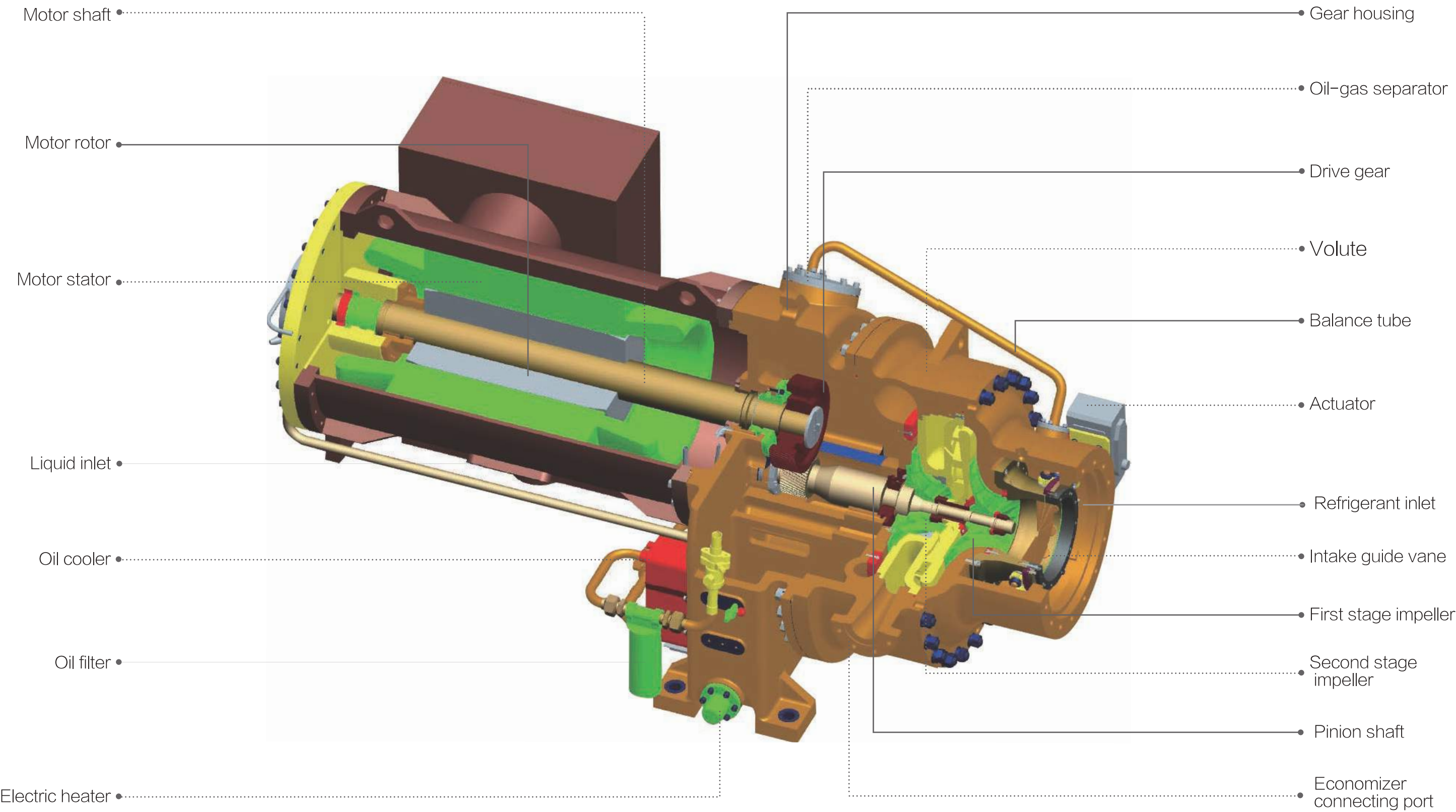


SCG-1701-02

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Structure diagram



Feature



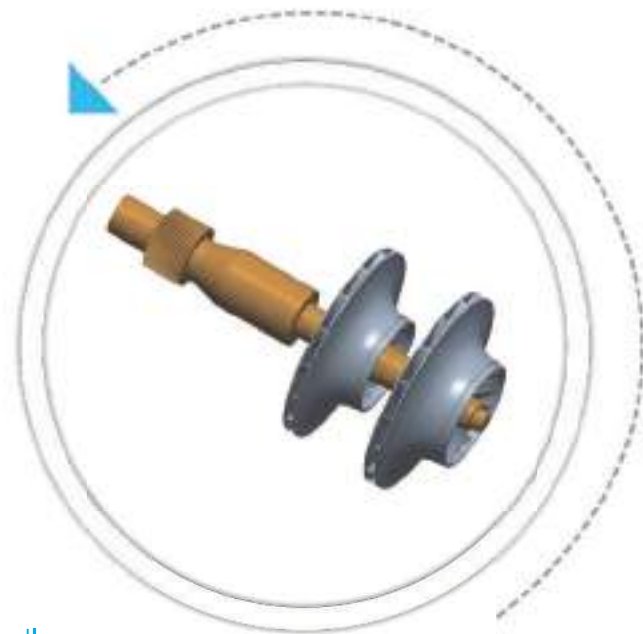
Advanced technology

- Aeroengine-class world-leading centrifugal compressor design technology.
- Unique replenishing gas augmentation technology, significantly improves the energy efficiency and reliability of the compressor.
- Keyless coupling design between the impeller and the main shaft improves the installation accuracy , which improves the efficiency of the compressor.
- A new type of three-way high-efficiency impeller contributes to higher efficiency and wider operating range.
- Advanced flow adjustment technology makes the compressor more extensive and reliable.
- Positive pressure design owes to the environmentally-friendly refrigerant of R134a, resulting in compact structure and friendly to the environment.



Energy saving

- Equipped with an efficient dual-stage impeller at standard type, which result to wider operating range and higher efficiency.
- Level 1 energy efficiency standard saves operating costs.



Environmentally friendly

- The use of R134a environmental protection refrigerant, which does not contain chlorine, has no destructive effect on the atmospheric ozone layer.



Stable and reliable

- The motor adopts double support structure ,more stable and reliable.
- By using the technologies such as IGV, leafless diffuser, high-efficiency replenishment and hot gas bypass it (optional) effectively avoids surge.
- Closed-type freon-cooled motor and multi-channel spray cooling technology ensure efficient and stable operation of the motor.
- Built-in oil pump design reduces the probability of leaking.
- The unique adjustable throttling technology makes the adjustment range of the unit wider and the operation more stable.



Low operating noise

- Optimize matching impeller and speed to achieve the lowest noise and best energy efficiency.
- CFD optimizes the design of the refrigerant flow channel, reducing the noise in the flow channel.
- Two-stage impeller design with low speed, further reduces the compressor noise.
- High-precision gear makes low noise and vibration.



Perfectly-fitted design for better performance

- Optimized matching for air conditioning to achieve the best performance.

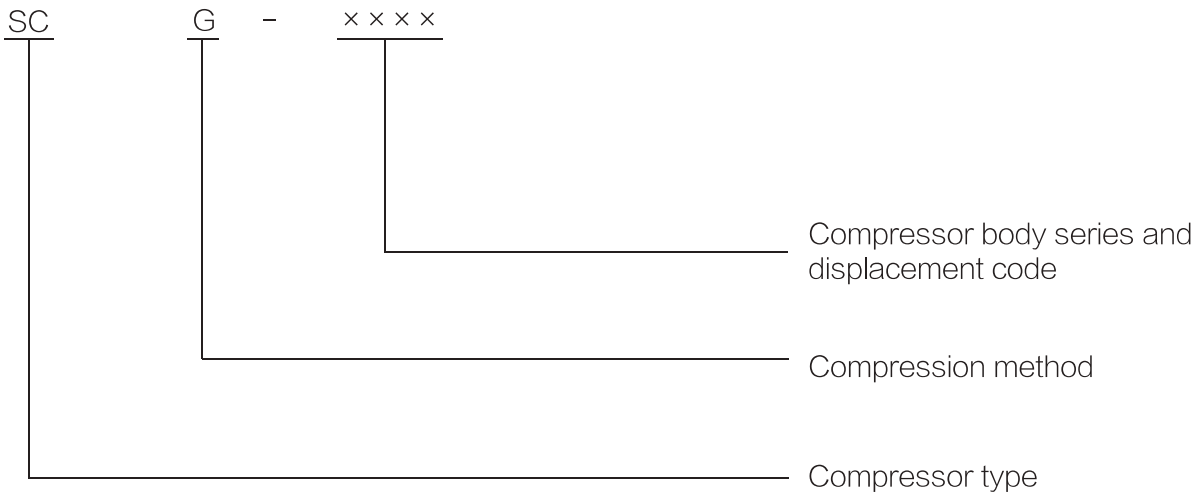


The double-stage design , Wide application

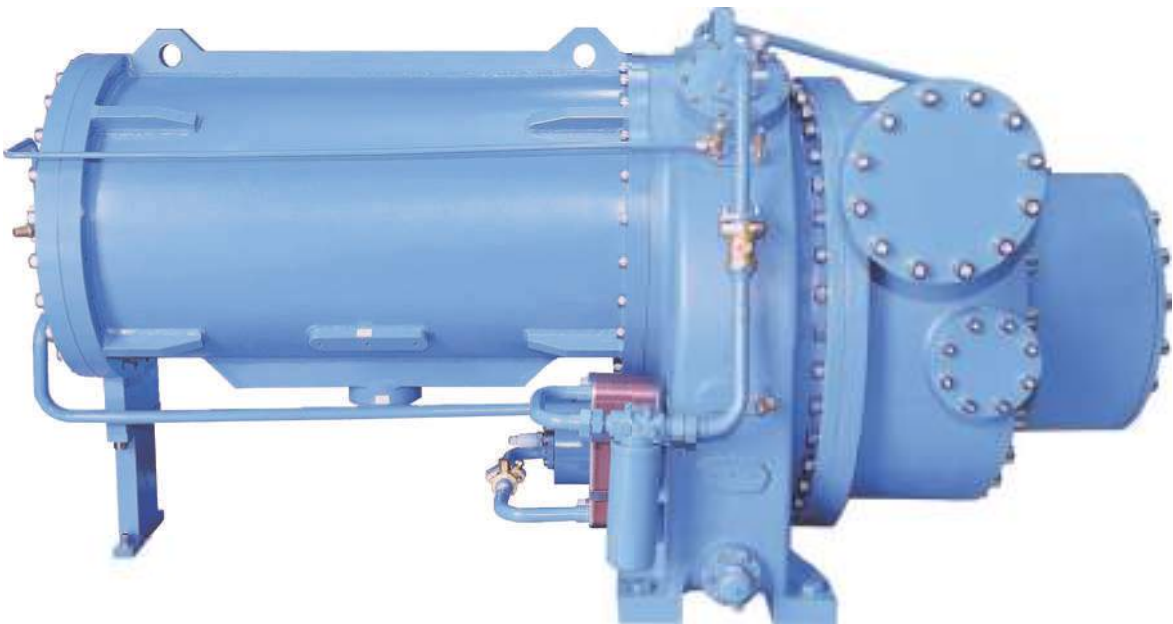
- The double-stage impeller design can provide higher pressure head and wider operating range to meet the application requirements of different occasions.
- Applied to various systems such as large temperature difference (concentrated cold station), primary pump variable flow rate, high temperature cooling water (process occasion), water (ground) source heat pump, ice storage, heat recovery and so on.

Naming rule

Compressor model



Compressor naming rule description such as SCG-E56N. SC as the product code of the snowman company centrifugal compressor, G as the gear speed-increasing type compressor, E56N as the compressor body series and displacement for E series and the displacement of 3958m3/h.



Technical parameter

Parameter \ Model		SCG-C36N	SCG-C56N	SCG-C66N	SCG-C76N	SCG-C86N	SCG-E26N	SCG-E36N
Refrigerant		R134a						
Compressor type		Semi-hermetic double stage gear speed-ascending centrifugal compressor						
Displacement	m³/h	2329	2561	2794	3027	3260	3493	3726
Inlet guiding vane Adjustment	%	0 ~ 100 (Continuous control)						
Impeller Type	/	Closed type ternary-flow efficient impeller						
Nominal speed	r/min	9550	10500	11450	7626	8213	8800	9387
Voltage	V	380/415/460/6(kV)/6.6(kV)/10(kV) (Or according to customer demand)						
Motor frequency	Hz	50/60						
Motor insulation class	/	Class F						
Motor protection class	/	IP54						
Motor overheat protection	/	PTC/PT100/(Or according to customer demand)						
Oil heater	kW	0.33 × 3(Voltage at 220V)						
Length	mm	2100	2100	2100	2280	2280	2345	2345
Width	mm	1080	1080	1080	1130	1130	1247	1247
Height	mm	1090	1090	1090	1140	1140	1165	1165
Weight	kg	3050	3050	3050	3400	3400	3800	3800

Parameter \ Model		SCG-E56N	SCG-E66N	SCG-E76N	SCG-E86N	SCG-F16N	SCG-F26N	SCG-F36N
Refrigerant		R134a						
Compressor type		Semi-hermetic double stage gear speed-ascending centrifugal compressor						
Displacement	m³/h	3958	4191	4424	4657	5123	5356	5588
Inlet guiding vane Adjustment	%	0 ~ 100 (Continuous control)						
Impeller Type	/	Closed type ternary-flow efficient impeller						
Nominal speed	r/min	7118	7622	7969	8335	6420	6710	7000
Voltage	V	380/415/460/6(kV)/6.6(kV)/10(kV) (Or according to customer demand))						
Motor frequency	Hz	50/60						
Motor insulation clas	/	Class F						
Motor protection class	/	IP54						
Motor overheat protection	/	PTC/PT100/(Or according to customer demand)						
Oil heater	kW	0.33 × 3(Voltage at 220V)						
Length	mm	2345	2345	2345	2345	2650	2650	2650
Width	mm	1247	1247	1247	1247	1330	1330	1330
Height	mm	1165	1165	1165	1165	1220	1220	1220
Weight	kg	3800	3800	3800	3800	4700	4700	4700

Note: The centrifugal compressor parameters listed in the table are optimized and matched for standard air conditioning conditions. For special customization, please contact Snowman Co., Ltd.

Technical parameter

Parameter	Model	SCG-F56N	SCG-F66N	SCG-F96N	SCG-G36N	SCG-G46N	SCG-G66N	SCG-G86N	SCG-G96N
Refrigerant		R134a							
Compressor type		Semi-hermetic double stage gear speed-ascending centrifugal compressor							
Displacement	m³/h	6287	6520	6986	7917	8383	8847	9780	10244
Inlet guiding vane Adjustment	%	0 ~ 100 (Continuous control)							
Impeller Type	/	Closed type ternary-flow efficient impeller							
Nominal speed	r/min	7875	5975	6400	7252	5314	5610	6200	6500
Voltage	V	380/415/460/6(kV)/6.6(kV)/10(kV) (Or according to customer demand)							
Motor frequency	Hz	50/60							
Motor insulation clas	/	Class F							
Motor protection class	/	IP54							
Motor overheat protection	/	PTC/PT100/(Or according to customer demand)							
Oil heater	kW	0.33 × 3 (Voltage at 220V)							
Length	mm	2650	2650	2650	2780	2780	2780	2780	2780
Width	mm	1330	1330	1330	1380	1380	1380	1380	1380
Height	mm	1220	1220	1220	1290	1290	1290	1290	1290
Weight	kg	5100	5100	5100	5500	5500	5500	5500	5500

Note: The centrifugal compressor parameters listed in the table are optimized and matched for standard air conditioning conditions. For special customization, please contact Snowman Co., Ltd.

Common power specification

Voltage	Compressor Series			
	C Series	E Series	F Series	G Series
380V	⊙	⊙	○	●
415V	○	○	○	●
460V	○	○	○	●
6kV	●	○	○	○
6.6kV	●	○	○	○
10kV	●	○	⊙	⊙

⊙ — Standard Configuration ○ — Optional Configuration ● — Not Available

Note: The table shows the commonly used power supply specifications. For special customization, please contact Snowman.

Outline drawing

