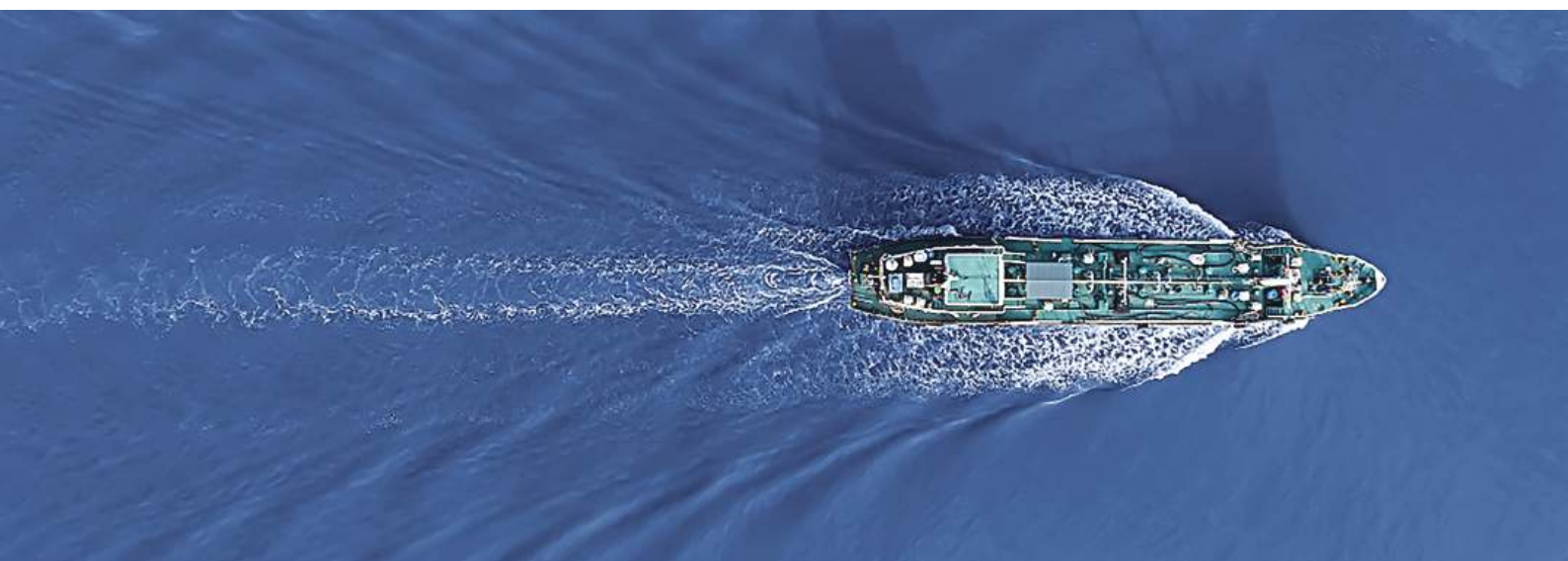


SHIPPING NAVIGATION AID SERIES PRODUCT BROCHURE



SE-CORP 東南股份

POOLING WISDOM, INNOVATING MANUFACTURING

COMPANY INTRODUCTION



Founded in

2003

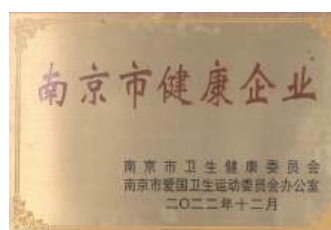
Nanjing Southeast Industrial Equipment Co., Ltd. (Stock Code: 832124), restructured from Nanjing Southeast Marine Equipment Co., Ltd., is located in the National-Level Intelligent Manufacturing Industrial Park of Nanjing Jiangbei New Area, China. The company covers 60 acres (approx. 24.3 hectares) with 11,000 m² of plant area.

Certified with ISO 9001, it is recognized as a "Specialized and Sophisticated Enterprise" and a "High-Tech Enterprise." Its business covers energy conservation, environmental protection, and industrial automation. With decades of expertise in the marine industry, the company holds comprehensive classification society certifications.

The factory integrates professional capabilities in mechanics, electronics, pneumatics, hydraulics, and industrial software simulation. Its diverse processing capabilities — electrical, mechanical, structural, and spraying — enable it to meet high-standard customer requirements.



Qualifications



Rain & Snow Clearing Series Products



Product Development History



1st Generation Wiper



1st Generation Rotating Window



2nd Generation Wiper



2nd Generation Rotating Window



Touch Control Panel

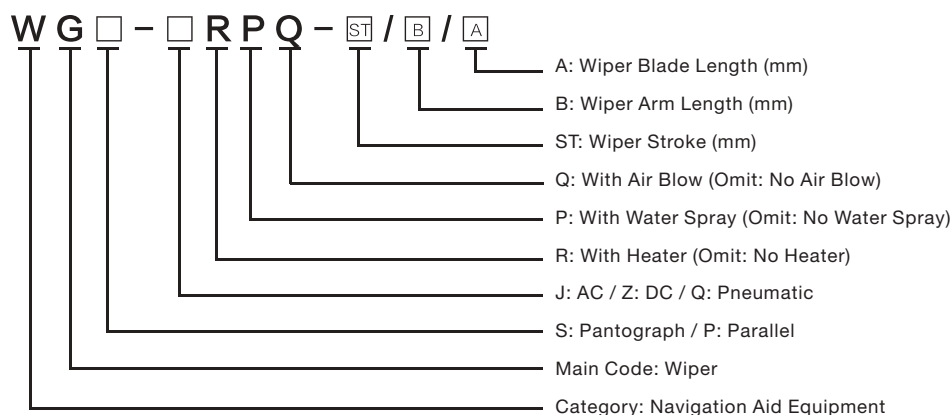


Pneumatic & Explosion-Proof Series

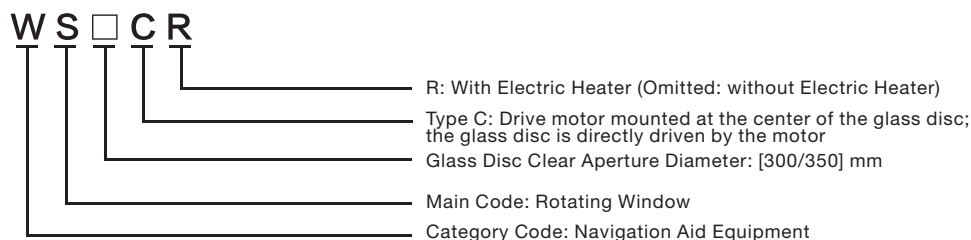


Distributed DCS Control System

Wiper Product Model Selection Guide ➤



Rotating Window Model Selection Guide ➤



Reliability ➤

- Wiper products are granted the Type Approval Certificate by China Classification Society (CCS).
- Rotating window products are granted the Type Approval Certificate by China Classification Society (CCS).
- The product housing utilizes customized aluminum alloy; all profiles undergo anodizing for exceptional environmental adaptability. Other components are manufactured from 316L stainless steel or copper materials, processed on CNC machining centers.
- The company holds the ISO 9001 Quality Management System Certificate issued by China Classification Society (CCS), Certificate No.: 00523Q3131R4M.
- Quarterly aging tests are conducted to ensure that no non-conforming products are delivered to customers.
- Wiper products are granted the Type Approval Certificate by Det Norske Veritas (DNV).

Advantages ➤

- Complete series solutions for parallel-type wipers, pantograph-type wipers, and rotating windows
- Availability of parallel-type pneumatic wipers (explosion-proof)

Certificates



CCS Type Approval Certificate



CCS Marine Product Inspection Certificate



DNV Type Approval Certificate

Parallel-Type Electric Wiper



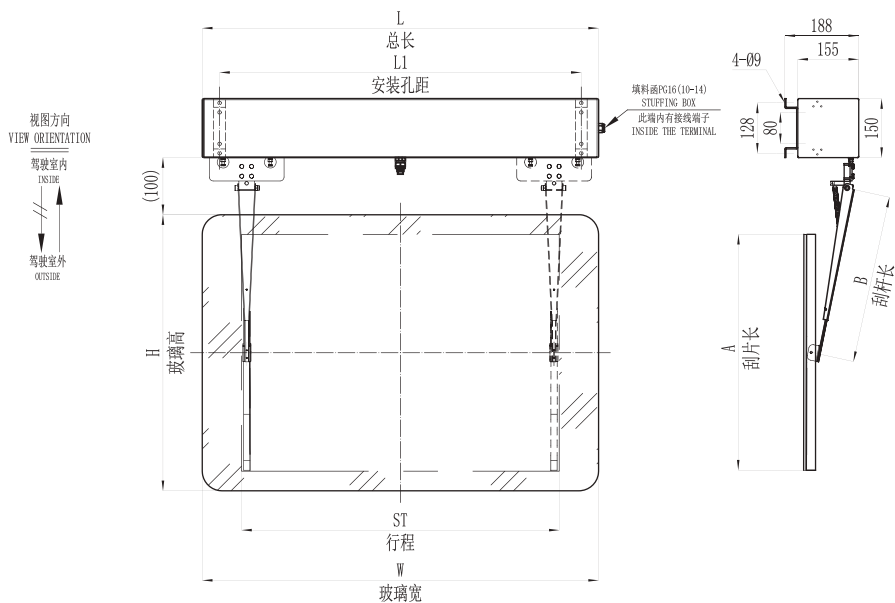
Product Features ➤

- Suitable for all vessel types
- Easy installation and maintenance
- Stepless speed adjustment and intermittent operation
- Automatic park positioning upon stop
- Automatic air purge for spray pipeline
- Multi-wiper synchronization function

Product Specifications

Power Supply	AC220V/AC110V 50/60Hz
Motor Power	100W
Wiping Speed	0.3-1.2 m/s
Single Wiper	Max.1600 mm
Dual Wiper	Max.2600 mm
Wiper Blade	Max.1000 mm
Wiper Arm	Max. 900 mm
Heating Function	Optional
Heating Power	≤500 W
Water Spray Function	Optional
Air Blow Function	Optional
Intermittent Wiping Function	Optional

Installation Outline Drawing



Unit: mm ※ Dimensions customizable per customer requirements

Description

The parallel-type electric wiper is designed to clear rain and snow from the windows of ship wheelhouses and operating compartments. It uses a speed-adjustable motor as the main power source, with aluminum alloy profiles serving as guide rails. Power is transmitted through reduction and transmission mechanisms to drive the rubber blade attached to the stainless steel wiper arm, performing parallel reciprocating motion on the glass. This ensures a clear view even during rain, wave splash, or snowfall.



Parallel-Type Pneumatic Wipe



Ex d IIC T5



Product Features

■ High Safety

Explosion-proof (no sparks). Resists vibration, high temperature, EM fields, radiation, humidity, and dust.

■ Overload Protection

Auto speed reduction or stop on overload. Resumes normal operation once overload is cleared.

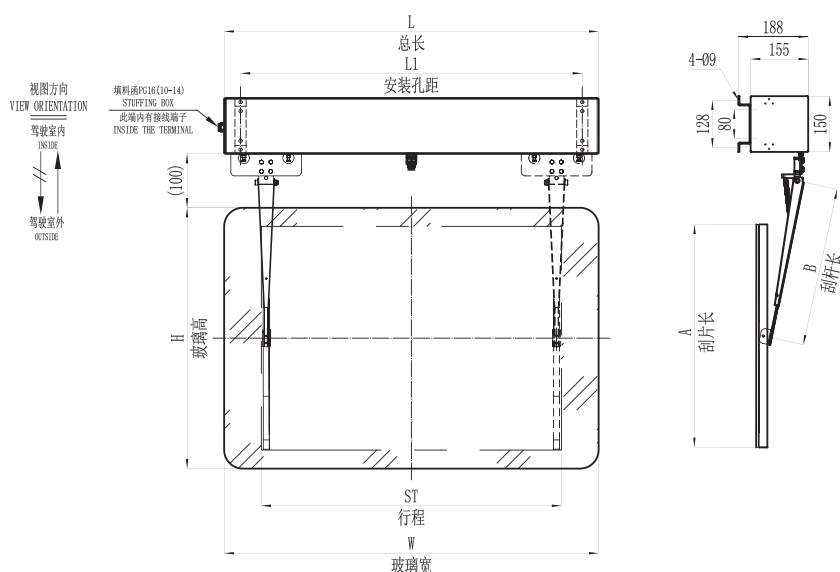
■ High Reliability

Continuous full-load operation with minimal temperature rise. High torque, fast start/stop, and can start under load.

Product Specifications

Power Source	Compressed Air
Air Supply Pressure	0.8-1 MPa
Wiping Speed	0.3-0.8 m/s
Single Wiper	Max. 1600 mm
Dual Wiper	Max. 2600 mm
Wiper Blade	Max. 1000 mm
Wiper Arm	Max. 900 mm
Water Spray Function	Optional
Air Blow Function	Optional
Park Position Function	Optional
Speed Control	Adjustable /Non-adjustable
Housing Material	Aluminum Alloy

Installation Outline Drawing



Unit: mm ※ Dimensions customizable per customer requirements

Description

China's first manufacturer of parallel-type pneumatic wipers. The product uses compressed air as the power source, meeting customer requirements for explosion-proof applications. It is suitable for special vessels such as drilling platforms, chemical tankers, and oil tankers.



Pantograph-Type Electric Wiper



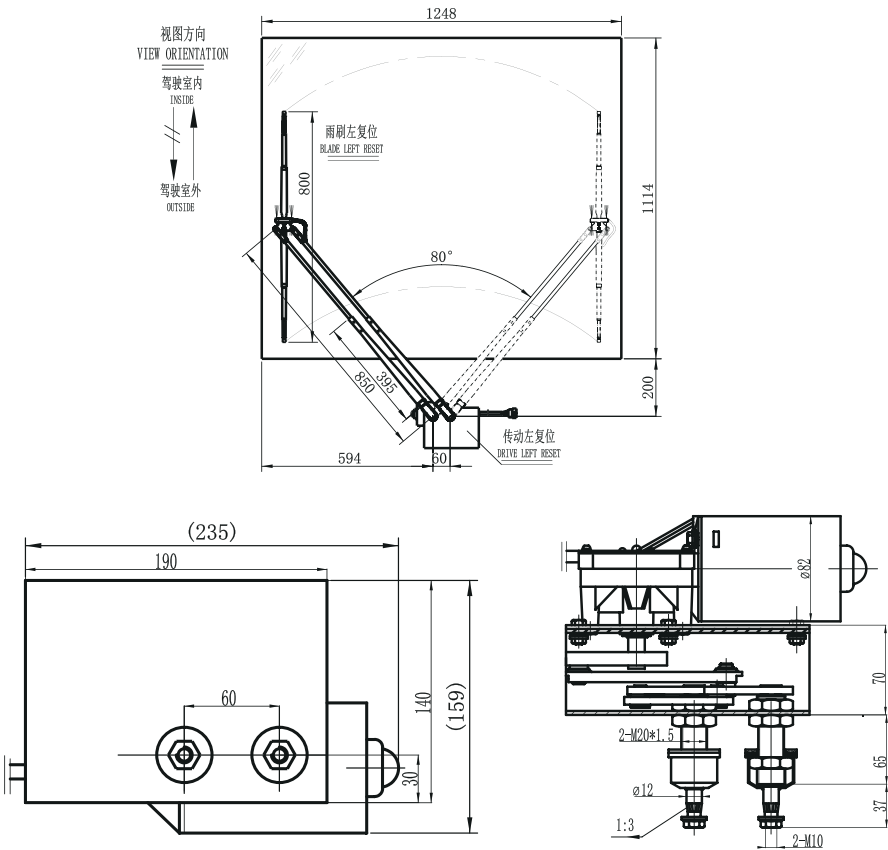
Product Features

- Compact structure
- Easy installation and maintenance
- High / low speed options
- Automatic arm reset upon stop
- Customizable arm length and wiping angle
- High reliability, maintenance-free

Product Specifications

Input Power	DC 24V
Operating Torque (N-m)	12
Braking Torque (N.m)	65
Power	100W
Wiping Angle	35° 100° [customizable]
Wiper Arm Size	Customizable
Speed Control	Stepped speed [Low/High]
No-Load Speed	30+10/45+10 r/min

Installation Outline Drawing



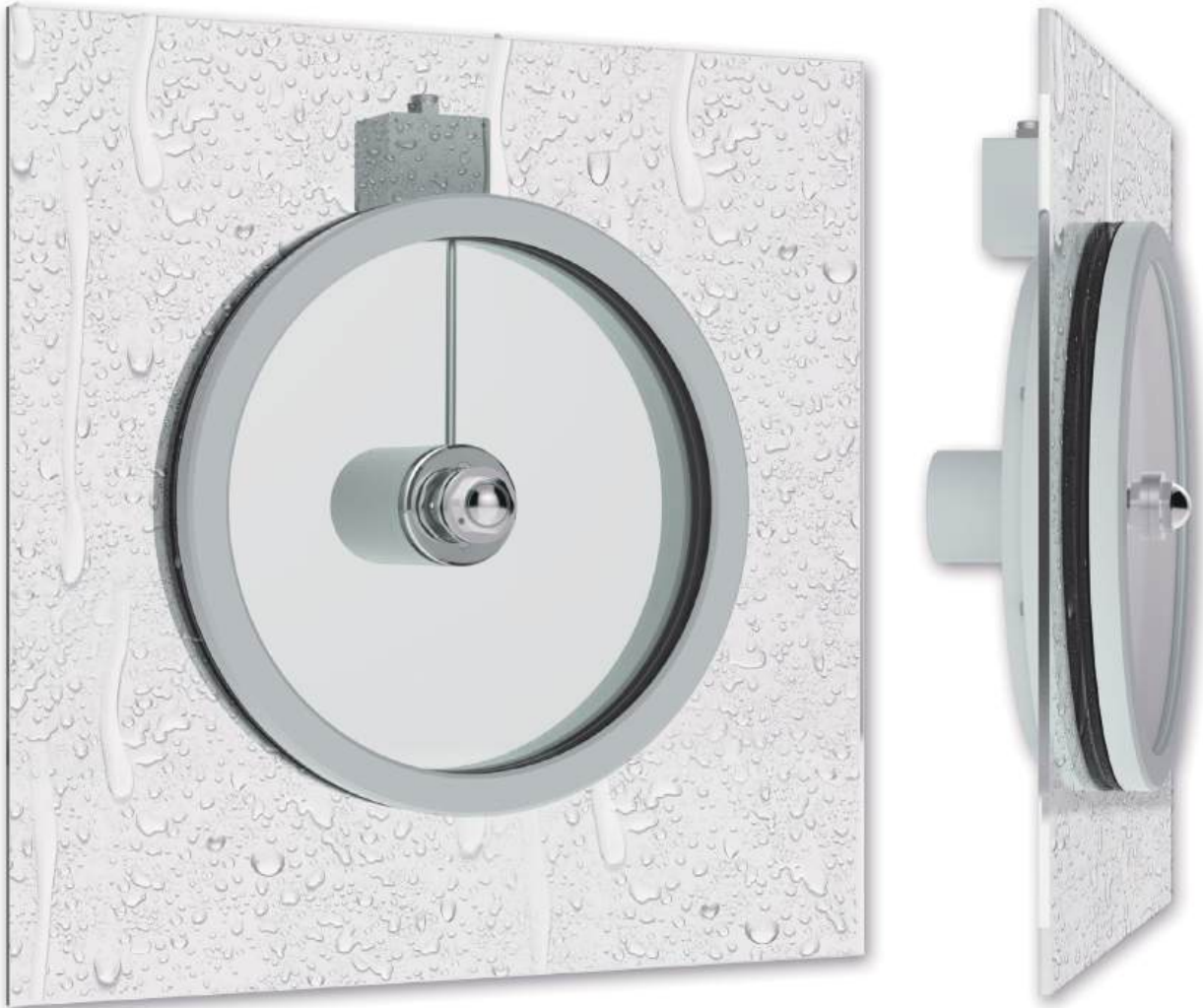
Unit: mm

Description

The pantograph-type electric wiper is an electrical product designed for clearing water from portholes in ship wheelhouses and work compartments. Powered by a drive motor, it utilizes a reduction mechanism and linkage system to convert the motor's rotation into oscillating motion, driving the stainless steel wiper arm across the porthole glass in a pantograph pattern. This ensures clear visibility through portholes during sea spray, rain, or snowfall, thereby ensuring safe navigation.



Rotating Window



Product Features ➤

- Suitable for all vessel types
- Over 90% visible viewing area
- Easy to install
- Completely airtight
- Stainless steel construction, suitable for marine environments
- High reliability, maintenance-free



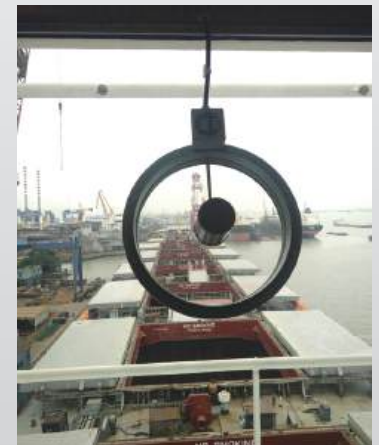
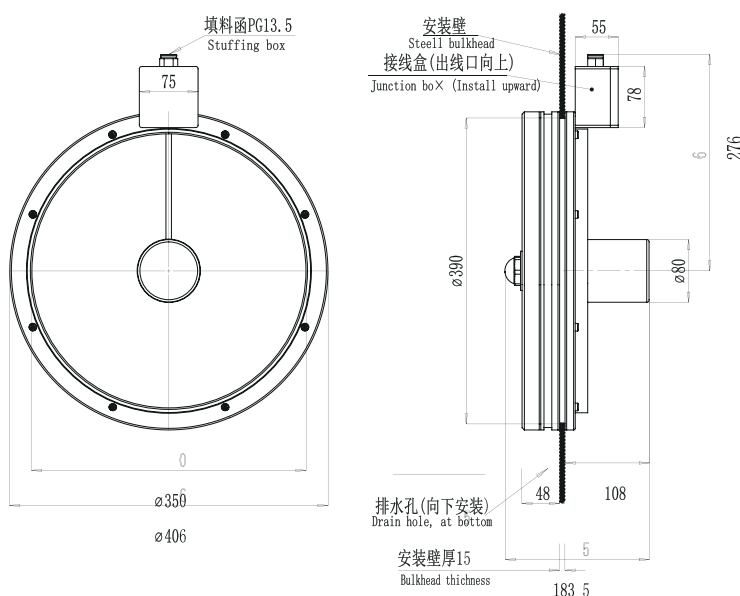
Description

The rotating window is designed for installation on wheelhouse observation windows. A motor drives the rotating disc at high speed, generating centrifugal force that throws off rain, snow, and sea spray to maintain clear visibility. The latest model features a double-glass design structure, providing over 90% visible viewing area while completely isolating the wheelhouse from the exterior.

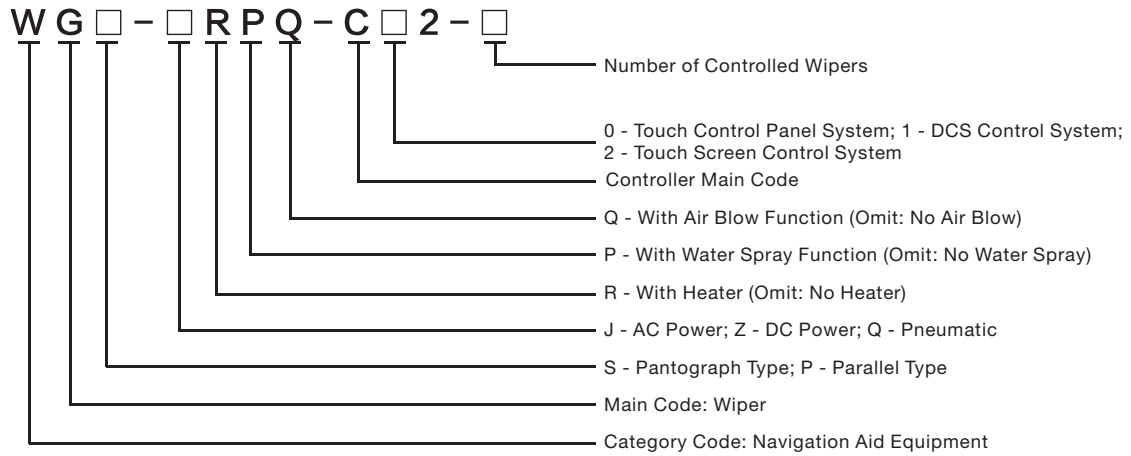
Product Specifications

	Double-Glass Construction
Input Power Supply	AC220V/AC110V/DC24V
Input Power	≤80w
Rotation Speed	>1400 rpm
Heating Function	Optional
Heating Power	≤250W
Housing Material	ZL-104 Aluminum Alloy
Protection Rating	Fully protected, IPX6
Mounting Thickness	8-30 mm

Installation Outline Drawing



Controller Model Selection Guide



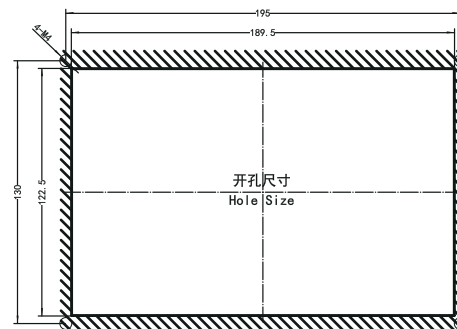
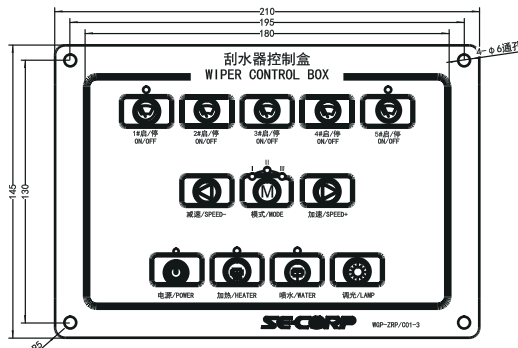
Touch Control Panel

The control system adopts a decentralized, zone-combined control design concept. It groups the wiper and water spray controls in the ship's wheelhouse into standard units based on specific quantities, which are installed independently in different areas. Suitable for all vessel types.

Product Features

- Supports up to 5 wipers
- Speed adjustment and intermittent function
- Membrane button

Product Features



Distributed DCS Control System



Modern shipbuilding development requires fully visible views. Larger wheelhouses and omnidirectional visibility are part of this trend. Under this premise, we have developed the Rain & Snow Clearing Series Distributed Control System (DCS). Crew members can use this system to control all wipers on the ship from any area of the wheelhouse, greatly simplifying their operation work.

Product Features

- Supports up to 105 wipers
- Supports up to 7 wiper groups
- Supports up to 7 water spray groups
- Customizable upon request

Touch Control System



Based on the DCS control system, we have integrated current multi-touch technology to launch a new generation of touch screen control system. Crew members can control wipers by switching control interfaces through gestures, just like using a smartphone—very convenient and reliable.

Product Features

- Supports up to 105 wipers
- Supports up to 7 wiper groups
- Supports up to 7 water spray groups
- Touch screen control
- Rain sensor
- Automatic water spray and air blow control
- Customizable upon request

※ Dimensions customizable per customer requirements

Marine Navigation Fog Horn



Fog Horn



Electric Fog Horn



Power Horn

Electronic Fog Horn

Electronic fog horn with automatic and manual fog signal output control function, suitable for medium and small vessels navigating in fog.

Model	Rated Voltage	Frequency	Output Sound Pressure	Protection Rating	Applicable Vessel Length
DW-01	AC220V/DC24V	550Hz $\pm$ 1%	$\geq$ 130dB	IP56	20–75m
DW-01G	DC24V	550Hz $\pm$ 1%	$\geq$ 130dB	IP56	Below 20m

Electric Fog Horn

Electric fog horn, including HSD-90 and HSD-161 models, generates sound through compressor airflow. Equipped with automatic and manual button control for fog signal output, suitable for medium and large vessels navigating in fog.

Model	Rated Voltage	Center Frequency	Output Sound Pressure	Protection Rating	Applicable Vessel Length
HSD-90	AC440/AC380 50Hz/60Hz	90Hz	$\geq$ 143dB	IP56	200–300 m
HSD-161		131Hz	$\geq$ 138dB	IP56	75–300 m

Fog Horn

Fog horn includes WD-1L, WD-2L, and WD-3L models. It uses compressed air flow to vibrate the diaphragm, producing various standard sounds. With automatic and manual fog signal output control function, suitable for large, medium, and small vessels navigating in fog.

Model	Rated Voltage	Output Sound Pressure	Protection Rating	Applicable Vessel Length	Air Pressure (MPa)
WD-1L	AC220V/AC110V/AC24V DC220V/DC110V/DC24V	$\geq$ 130dB	IP56	20–75 m	1.0–0.7
WD-2L		$\geq$ 138dB	IP56	75–200 m	
WD-3L		$\geq$ 143dB	IP56	200–300m	

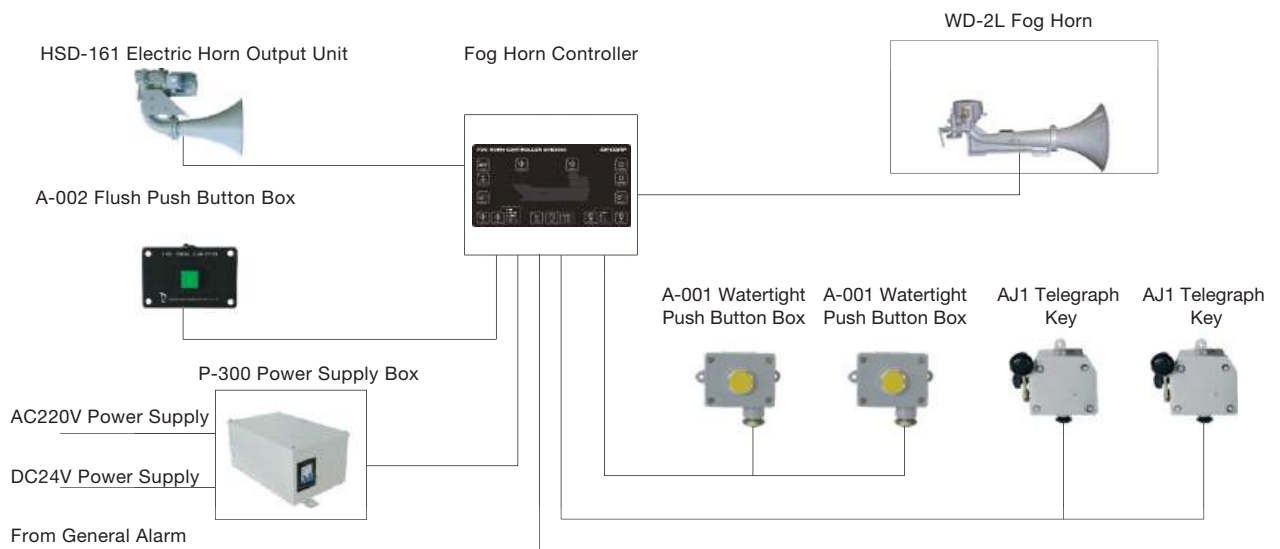


Product Overview ➤

Main Specifications

- Combination of panel embedded and wall-mounted enclosure
- Power supply: AC220V/50Hz and DC24V
- Controller power consumption: $\leq 50W$
- Panel protection rating: IP22

System Diagram



Partial Sales Performance

No.	Customer/ Shipyard	Ship Name	Ship No.	Execution Period
1	COSCO Shipping Heavy Industry Co., Ltd.	N936~N939/N946~N953/N989~N996/ N787/N1065~70/N1075~78/N1080~85/ N944~N947/N984~N985/N973~N983/N1049~54/ N1086~93/N1099~N1102/N997~8/N1125~29/63.6k N1159~61/N1169~70/ N1173~74/N1171~72/N1180~81/ N1189~92/N1175~79/N1193~96/N1187~88/N1206~7/ N1202~5/N1227~29/N1198~99/N1211~12/N1218/N12 19~21/ N1200~01/N1244~45/N1248~51/N1316~17/N1299~13 10/N1230/N1240	8100 Bulk Carrier/82,000DWT/14K/114,000DWT Tanker/ 210,000DWT Bulk Carrier/63,600DWT Bulk Carrier/20K Transshipment Barge/7000 Container Ship/82k Bulk Carrier/Xiny- ihai/1600OTEU/82.5K/ 114POT Cruise Ship/211,000DWT Bulk Carrier/82,500DWT Bulk Carrier/82.5BC/11000TEU/154K Shuttle Tanker	2019-2027
2	Shanghai Waigaoqiao Shipbuilding Co., Ltd.	H1522~H1524/H1529~30/H1540~49/H1512~14/ H1550~61/H1576~79/H1533~34/H1353~54/ H1380~83/H1603~09/H1572~75/H1587~88/ H1582~83/H1515/H1600~02/H1401~2/H1584~6/ H1592~5/H1596~97/H1598~99/H1422/H1456~57/H139 5/H1630~31/H1610~15/H1403~10/ H1391/H1463/H1591/H1636~38/H1656/ H1616/H1632~35/H1647~48/H1639~40	210,000DWT Bulk Carrier/190KBC Dual Fuel/114,000DWT Product Tanker/ 7000TEU/9000CEU PCTC/114KPOT/8600- CEU LNG-PCTC/158KCOF/10800CEUDF PCTC/9200TEU (Dual Fuel)/114KPOT/14000- TEU C.N/7000TEU C.N/11000TEU C.N 62,000DWT Vessel/CH59000 Bulk Carrier/NH49800DWT Bulk Carrier	2020-2027
3	China Merchants Industry Holdings	JLZ9200401~4/JLZ9210409~JLZ9210412/ JLZ9200415~17/JLZ8210401~8/CMYKZ0115~16/ JLZ9210415~6/CMY20098/CMY20118/CMHI272-01/ CMYKZ0086/CMHI273/CMHI-278-01/CMY20097/ CMYKZ0199/CMHI-186-1~2/ JLZ8210423~24/CM- HI-286/JLZ9230509~12/ JLZ9230515~16/CM- HI-292-01~2/ JLZ8220404~5/CMY20144~46/C- MYKZ0157/CMYKZ0159~6/JLZ8230421~24/- JLZ9240509~11/JLZ9230447~50/ JLZ8230433~40/- JLZ9230445~46/JLZ9230445~46/JLZ924/CM- HI-294-01~02	ZG4600TEU/5500m³ LPG Carrier/ WY1100- TEU-1/3300m³ LPG Carrier/6300m³ LPG Carrier/CM-WT11600 Wind Power Installation Vessel/3600DWT Chemical Tanker/ Jinfeng Hai 1600T Wind Power Installation Vessel/Sheng- hang 5500m³ Semi-refrigerated Semi-pressur- ized/Xingtong 7490DWT Stainless Steel Chemical/Product Tanker /KL7000PCTC/China Railway Major Bridge Engineering 2000T Wind Power Installation Platform/ CS6500-1~9/BYD9200/7850 Asphalt Carrier/- SA7400 Series Vessel /CM62000-1~4/W- W9300PCTC Series Vessel /CM7800/MM41000 Series Vessel/DC15000 Series Vessel /ZH25900 Project/EPS5500 Series Vessel/CB62000-1~4	2021-2027
4	New Dayang Shipbuilding Co., Ltd.	DY4076/DY4081/DY4060/DY4062/DY4068/DY4071/DY 4079/DY4080/DY4083/ DY4084/DY4088~93/DY4110/DY4111/DY4099~DY411 6/ DY4141~59/DNY1256~60/DY1248~49/DY1250~53/ DY1254/55/DY1261~62/DY1267~68/DNY1282~83/ NDY1291/NDY1275~78/NDY1289~90/NDY1292~93/N- DY1296~97/NDY1301~02/NDY1284~86/ NDY1288/N- DY1298~99/NDY1305~12/NDY1303~04/N- DY1315~30/NDY1330/N- DY1332/NDY1334~38/NDY1341/NDY3001~4/NDY133 3/NDY1339~40/NDY1342~44	DY4076/DY4081/DY4060/DY4062/DY4068/DY40 71/DY4079/DY4080/DY4083/ DY4084/DY4088~93/DY4110/DY4111/DY4099~D Y4116/ DY4141~59/D- NY1256~60/DY1248~49/DY1250~53/ DY1254/55/DY1261~62/DY1267~68/D- NY1282~83/ NDY1291/NDY1275~78/N- DY1289~90/NDY1292~93/NDY1296~97/N- DY1301~02/NDY1284~86/ NDY1288/N- DY1298~99/NDY1305~12/NDY1303~04/N- DY1315~30/NDY1330/N- DY1332/NDY1334~38/NDY1341/NDY3001~4/ND Y1333/NDY1339~40/NDY1342~44	2019-2027
5	Jiangsu New Times Shipbuilding Co., Ltd.	208,000DWT Vessel/210,000DWT Series/13000TEU Series/50000DWT Series/16,300DWT Crude Oil Tanker/110,000DWT Product Tanker/50,000DWT Oil Tanker/156,500DWT Oil Tanker/120K/115,000DWT Series/159,000DWT Crude Oil Tanker Series/113,500DWT Series/50,000DWT Series/155,500DWT Series/299,500DWT Series/73,500DWT Series/112,500DWT Series/18000- TEU Series	0120809~0120828/0120831~43/120845~50/021 3001~4/0405020~0405037/0316321~25/031110 9~12/040504~5/0315833/34/41/42/55/56/01120 01~4/0311544~47/0316316~19/0311548~51/040 5054~59/0311556/0315879~80/0330001~4/0315 869~74/0307373~78/0311552~53/0330005~8/02 18001~12	2019-2028
6	Jiangsu New Yangzi Shipbuilding Co., Ltd.	31,800DWT Vessel/56,000DWT Vessel/4600TEU Container Ship/45,000DWT/52,000DWT/32,000DWT/50,000DWT/ 75,000DWT/MR50000DWT/VITOL/MR50KDW GLOBAL ONE/MR39000DWT EVALEND/40,000DWT Oil Tanker/4300TEU	YZJ2019-1285~88/YZJ2020-1323~4/YZJ2021-1 338~YZJ2021-1339/YZJ2021-1350~59/YZJ2021 -1402~5/YZJ2021-1376~7/YZJ2021-1402~1405/ YZJ2020-1305~6/YZJ2022-1453~54/YZJ2022-1 449~52/YZJ2023-1509~15/YZJ2023-1523~24/Y ZJ2023-1525~28/YZJ2024-1638~39/YZJ2023-15 72~75/YZJ2023-1609/YZJ2024-1691~94/YZJ202 4-1646~47/YZJ2024-1711~12	2020-2027
7	Penglai Zhongboh Jinglu Shipbuilding Co., Ltd.	49.2K Tanker/7999DWT Product Oil Tanker/9700DWT Bulk Carrier/1800GT Tuna Purse Seiner	JL0247~50/JL0259T~65T/JL0275B~78B/- JL0289(F)~90(F)/- JL0279(T)~81(T)/JL0357(T)~58(T)/JL0356(F)/0108 213~14/JL0326~29(T)/108215~18/JL0425~28/03 04101~2/0304103~4/03051013~18/0305023~27/J L0373/JL0375/JL0367~68/JL0371	2020-2027

GLOBAL SERVICE





Headquarters address: No. 398, Wangxin Road, Zhongshan Science & Technology Park, Luhe District, Nanjing, Jiangsu, PRC

Postal code: 211505

Phone exchange: +86-25-57700077

Sales Phone: +86-25-85549445

Technical phone: +86-25-57700077-8067

After sales phone: +86-25-57700077-8304

Fax: +86-25-58848466

E-mail address of sales department: sales@secorp.cn

Company website: www.secorp.cn



WeChat Official Platform

