

# IAC

## Distributed Control System



### Certification

**CERTIFICATE**  
of Conformity

**Registration No.:** AK 50616769 0001  
**Report No.:** 17709012 001  
**Holder:** Chengdu Yanxing Automation Technology Co., Ltd  
Unit 1 Building 6 No. 1166 Tianlong Avenue Jinniu District, Chengdu, 610000 Sichuan P.R. China  
**Product:** Safety Device  
(Safety Control System for Entertainment Applications)

**Type designation listed on the next page**  
The certificate of conformity refers to the above-mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned on the next page. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

**Date:** 2024-02-07

**Certification Body**  
Xiao Ling




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**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

**CERTIFICATE**  
of Conformity

**Registration No.:** AK 50616769 0001  
**Product:** Safety Device  
(Safety Control System for Entertainment Applications)  
**Tested according to:** EN IEC 62061:2021  
**Identification:** Type Designation  
IAC Control System  
Serial No.: 099-2023005  
Remark:  
1. Refer to test report 17709012 001 for details.  
2. Emergency stop and enabling safety functions fulfil the requirements of SIL3 acc. to EN IEC 62061:2021.



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Page 1 of 2

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Page 2 of 2



## TUV Rheinland SIL3 Certified.

# IAC Drives



Category	IAC 1	IAC 3
Software Compatibility		
Control System	Aurora Pro Console, Aurora Mini Console, Goatshow Software	
Electrical		
Rated Voltage	3-Phase 400V	
Power Supply Type	IEC 60309 “CEEform” 32A 400V	
Support Motor	Asynchronous motor	
Closed Loop Function	-	Support
Power Range	0.75kW–3kW	0.75kW–15kW
Holding Brake Output	230VAC and 400VAC braking outputs	
Built-in Inverter	-	High-performance vector inverter
Zero Speed Hover	-	Support
Positioning Accuracy	±3mm	±1mm
Connections	CAN Connections	
Security Protection	Support hard limit and soft limit function	
Control		
Local Control	Standard local control panel and LED display for parameter setting, modification, and monitoring	
Remote Control	Support remote parameter setting and modification, and parameter set download	
Encoder	Single encoder interface with differential incremental encoder	
Topology	Supports power and communication daisy-chain connections	
Interface		
Motor Interface	1 * heavy-duty motor connector (including motor, brake, limit, and encoder)	
Network Interface	2 * XLR-3 on connector panel	
Load Cell Interface	Support	
Shape		
Dimensions (L×W×H)	3kW 320mm×137mm×180mm	3kW 380mm×138mm×228mm
Housing	Matte black powder-coated finish	
Weight	3kW 5kg	3kW 8kg
Characteristics		
Protection Level	IP20	
Operating Temperature	0 to 40°C	
Storage Environment	Temperature: -5 to 60°C, Relative Humidity: 20%-75% Non-condensing	

Category	IAC 5	IAC 7
Software Compatibility		
Control System	Aurora Pro Console, Aurora Mini Console, Goatshow Software	
Electrical		
Rated Voltage	3-Phase 400V	
Power Supply Type	IEC 60309 'Ceform' 32A 400V	
Support Motor	Asynchronous motor	Asynchronous motor and servo motor
Closed Loop Function	Support	
Power Range	0.75kW–11kW	0.75kW–15kW
Holding Brake Output	230VAC and 400VAC braking outputs	
Holding Brake Output	230VAC and 400VAC braking outputs	230VAC and 400VAC braking outputs 24VDC servo braking output
Built-in Inverter	High-performance vector inverter	High-performance servo type inverter
Zero Speed Hover	Support	
Positioning Accuracy	±1mm	
Connections	ECAT	
Synchronization Control	Support position mode and cycle positon mode	
Security Protection	Support hard limit and soft limit function	Support safety limit, hard limit and soft limit function
Control		
Local Control	Standard local control panel and LED display for parameter setting, modification, and monitoring	
Remote Control	Support remote parameter setting and modification, and parameter set download	
Encoder	Single encoder interface with differential incremental encoder	
Encoder	Single encoder interface for differential incremental encoder	Dual encoder interface for differential incremental encoder and absolute value encoder
Topology	Supports power and communication daisy-chain connections	
EU LTV and EMC Directiv	-	Conformity
Interface		
Motor Interface	1 * heavy-duty motor connector (including motor, brake, limit, and encoder)	
Network Interface	2 * ECAT	
Load Cell Interface	Support	
Configuration Interface	Support	
Shape		
Dimensions	3kW 420mm×147mm×230mm 7.5kW 568mm×282mm×268mm 11kW 568mm×302mm×324mm	3kW 485mm×160mm×265mm 7.5kW 560mm×175mm×286mm 15kW 590mm×266mm×325mm
Housing	Matte black powder-coated finish	
Weight	3kW 5kg 7.5kW 20kg 11kW 30kg	3kW 8kg 7.5kW 17kg 11kW 34kg
Characteristics		
Protection Level	IP20	
Operating Temperature	0 to 40°C	
Storage Environment	Temperature: -5 to 60°C, Relative Humidity: 20%-75% Non-condensing	

# PDES System Cabinet



Category	ECAT Interface	CAN Interface
<b>Function</b>		
Emergency Stop	Class 0 and class 1 emergency stop for: 1. Local emergency stop 2. Emergency stop link extension 3. SIL3 safety relay emergency stop	Class 0 and class 1 emergency stop for: 1. Local emergency stop 2. Emergency stop link extension
Leakage Detection	Built-in adjustable RCD leakage protection, support bypass function	
Breaking Capacity	Rated 200A circuit breaker, 50kA breaking capacity	
Remote Power-down Reset	Support	
Local Display	5" LCD display	LED display
Local Reset	Support	
Three-phase Power Output	Provide 8 ways of 32A three-phase power outputs (with indication), each has independent output circuit breaker	
Two-phase Power Output	Provide 4 channels of 10A two-phase power output (with indication)	
IAC Drive Support	Support up to 128 IAC5 and IAC7 drives	Support up to 48 IAC1 and IAC3 drives
Interface Configuration	Support 100M Ethernet and fiber optic communication, support 7 ECAT switch interfaces, support up to 128 Series 5 and Series 7 IAC drivers per channel	Support 8 CAN-HUB interfaces, each supporting a maximum of 8 Series 1 and Series 3 IAC drivers
FSDI Input	Support 16-channel live FSDI input	
Networking Cascade	Support networking and cascading of up to 16 PDES cabinets	Support networking and cascading of up to 4 PDES cabinets
<b>Parameters</b>		
Voltage	400V $\pm$ 10, 200A	
Interface	8 * IEC 60309 "Ceeforn" 32A 400V	
Dimension (L×W×H)	600mm × 850mm × 980mm	
Weight	105kg	102kg

# PDES System Cabinet



Category	ECAT Redundant Ring Network Interface
Function	
Emergency Stop	Class 0 and class 1 emergency stop for: 1. Local emergency stop 2. Emergency stop link extension 3. SIL3 safety relay emergency stop
Leakage Detection	Built-in adjustable RCD leakage protection, support bypass function
Breaking Capacity	Rated 200A circuit breaker, 50kA breaking capacity
Remote Power-down Reset	Support
Local Display	5" LCD display
Local Reset	Support
Three-phase Power Output	Provide 8 ways of 32A three-phase power outputs (with indication), each has independent output circuit breaker
Two-phase Power Output	Provide 4 channels of 10A two-phase power output (with indication)
IAC Drive Support	Support up to 80 IAC5 and IAC7 drives
Interface Configuration	Support 100M Ethernet and optical fiber communication, support 4 ECAT ring network interfaces, each supports up to 20 IAC drives of 5 series and 7 series and the ECAT interface supports fiber mode
FSDI Input	Support 16-channel live FSDI input
Networking Cascade	Support networking and cascading of up to 16 PDES cabinets

# Aurora Console



Category	Aurora Pro	Aurora Mini
Function		
Emergency Stop	Class 0 and class 1 emergency stop for local emergency stop	
User Permission Setting	Support	
Computer Configuration	Built-in high-performance ADVANTECH Industrial computer	
Screen Configuration	Dual 17.3" touchscreen monitors	Single 17.3" touchscreen monitor
Power Supply	Built-in power filter, configured with UPS function	
Connections	100M Ethernet and fiber optic communication	100M Ethernet
DMX512 Communication	Support	
LTC Time Code	Support	-
Cascade Mode	Support maximum up to 2	-
Hot Standby Mode	Support	-
IAC Drive Support	IAC1, IAC3, IAC5, IAC7	
Hotkeys and Channels	Hotkey ×158 Channel Group ×6 Scene: Unlimited	Hotkey ×134 Channel Group ×2 Scene: Unlimited
Number of Drivers	2048	64
Programming Method	Tabular programming, object-based programming	Form-based programming
3D Display	Support	-
Program	Equipped with features such as batch downloading for updates, direct driver parameter maintenance, and built-in parameter sets.	
Parameters		
Voltage	180 – 264V AC, 47– 53Hz	
Control Channel	Control Channel ×6 Control Command Shortcut Keyboard ×2 Optical Interface ×2 Ethernet Interface ×2 DMX512 Interface ×1 LTC Interface ×1 USB Expansion ×2 Gooseneck Light ×1 Standard 61-Key Keyboard ×1	Control Channel ×2 Control Command Shortcut Keyboard ×2 Ethernet Interface ×2 DMX512 Interface ×1 USB Expansion ×2 Gooseneck Light ×1
Dimension (L×W×H)	890mm×670mm×230mm	440mm×560mm×330mm
Weight	40kg	15kg



IAC DISTRIBUTED CONTROL SYSTEM

