– Integrated Datacenter Block –

IDB series Outdoor Container Data Center Solutions

COMPANY PROFILE

Founded in 1993, Shenzhen KSTAR Science & Technology Co., Ltd (Stock Code: 002518) is a National Torch Plan Key High-tech Enterprise, and also a pioneer of UPS industrial and a total solution provider for Data Center Critical Infrastructure & Photovoltaic Inverter Systems in Mainland China. KSTAR is fully committed to the R&D and has been providing high-quality products with full service to over 90 countries and regions worldwide, leading the industrial development with innovation.

ISO9001

ISO14001

OHSAS18001

IECQ QC080000

KSTAR Industrial Park at Guangming industrial Zone,Shenzhen,China

KSTAR Industrial Park at Zhongkai Hi-Tech Zone,Huizhou,China

KSTAR Industrial Park at Guanlan Fuyuan industrial Zone,Shenzhen,China

Global Service Network

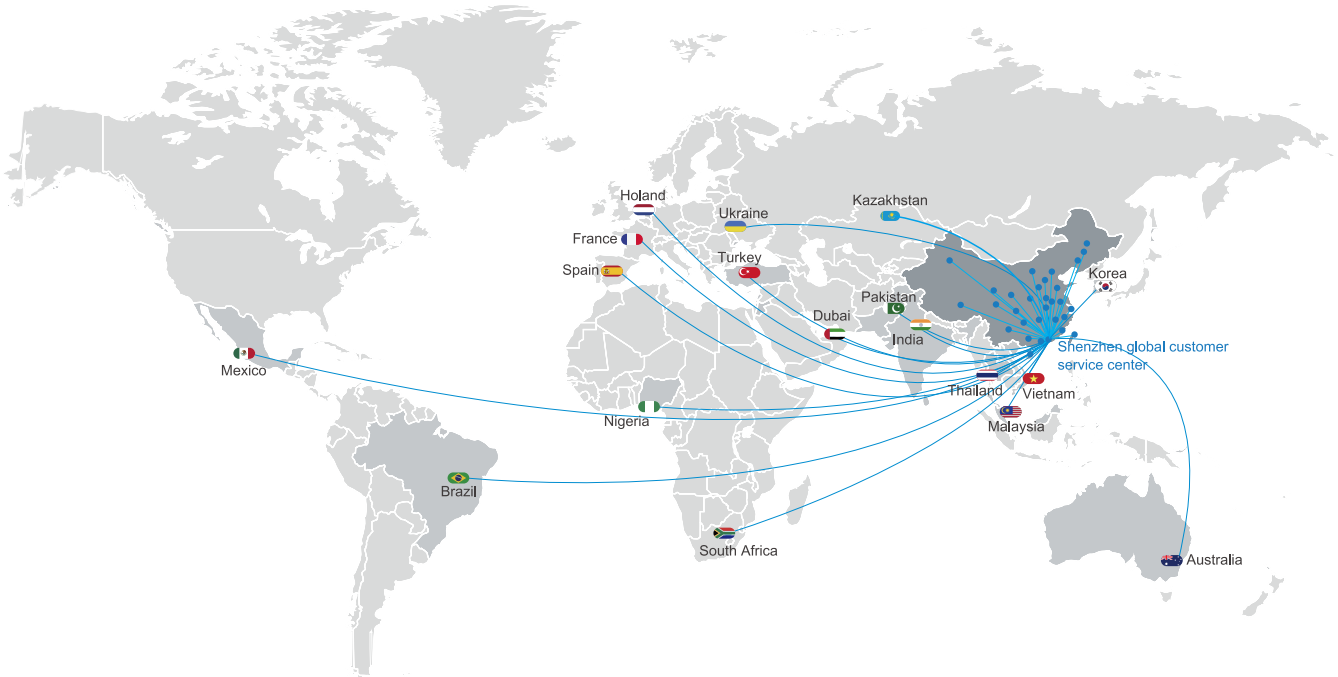
7×24 Response and Support

31 Domestic Service Centers
172 Domestic Service Stations

National Customer Service Hotline:
400-700-9662

17 Overseas Technical Service Centers
40 Overseas Service Engineers

KSTAR Industrial Park at Guangming Hi-Tech Zone, Shenzhen, China



IDB Solutions

Brief Introduction

Kstar IDB is an integrated solution for outdoor container data center infrastructure, which can be quickly deployed in a short time via factory pre-fabrication.

Kstar IDB can be used in various industries and scenarios, it can also be used as an independent disaster recovery data center, which is the best solution for outdoor small data center.

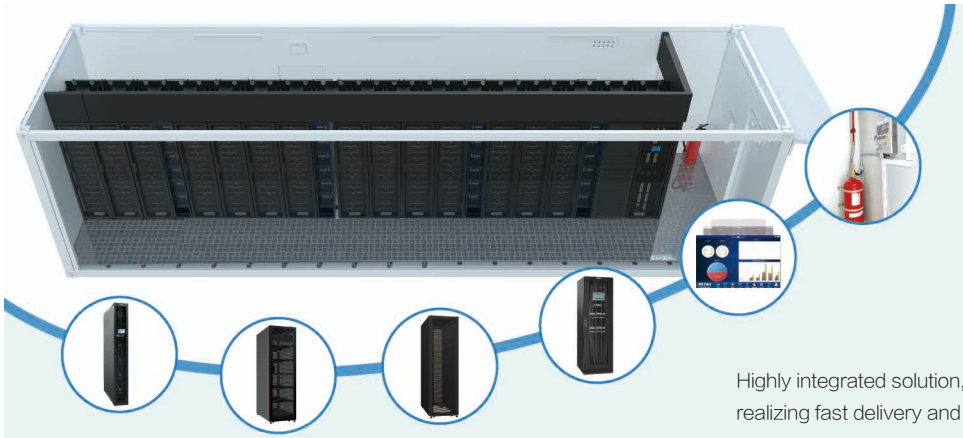
Application

Small data centers for enterprises	Small data centers for government, energy, education and other industries	Backup data center for financial industry	Operator's small computer room and edge site

◎ Product Features & Value

▼ Quick deployment

· Integrated power distribution, cooling system, cabinets, sealed aisles, monitoring, firefighting and other major subsystems, factory pre-integration and pre-commissioning, shortening the delivery time.
· All components is comply with domestic and international technical standards, support plug and play and easy to be installed. Also, it meets the code of international transportation, and can be shipped all over the world.



Highly integrated solution, factory pre-fabricated, realizing fast delivery and deployment.

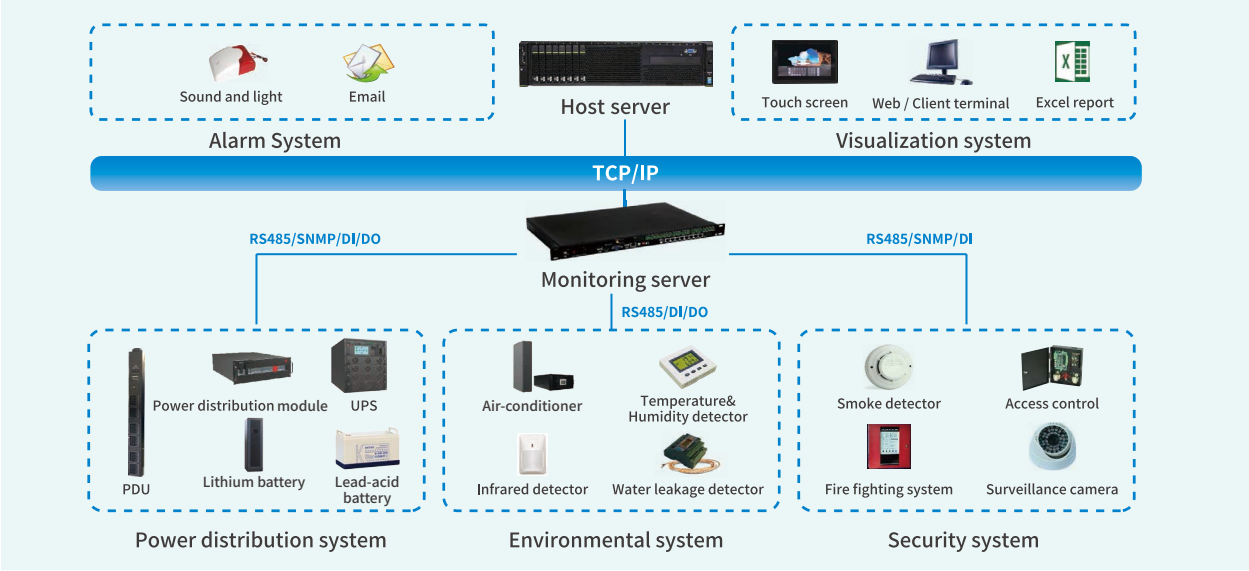
▼ High efficiency and energy saving

· Fully enclosed structure, sealed hot and cold aisles, improving cooling usage, reducing consumption and saving energy.
· Using high-efficiency power modular, the UPS system efficiency is up to 96.7%.
· Self-developed row precision air conditioner with double EC fans and electronic expansion valve and variable frequency driver, more energy-saving.

Sealed hot and cold aisles, greatly reduce the cooling loss of air conditioner, decrease the PUE value.

▼ Intelligent Management

· The centralized monitoring system monitors the status of running, the mains,the ambient temperature, etc.
· Support various alarms, including audible & visual alarms, SMS, telephone, email, etc.
· Using the remote monitoring platform to realize unattended operation and minimize the operation and maintenance costs.



▼ Safety and Reliability

· Fully enclosed design and compliance with IP55, apply to various working conditions.
· Redundancy design of key equipment to ensure the system running stably.
· With multi-level automatic alarm function, providing voice alarm, telephone voice alarm, network video surveillance, etc.
· Built-in automatic fire alarm and fire extinguishing device to prevent and control fire in time.

Deployed with comprehensive security system, including access control, video surveillance, fire extinguishing, automatic alarm, etc.

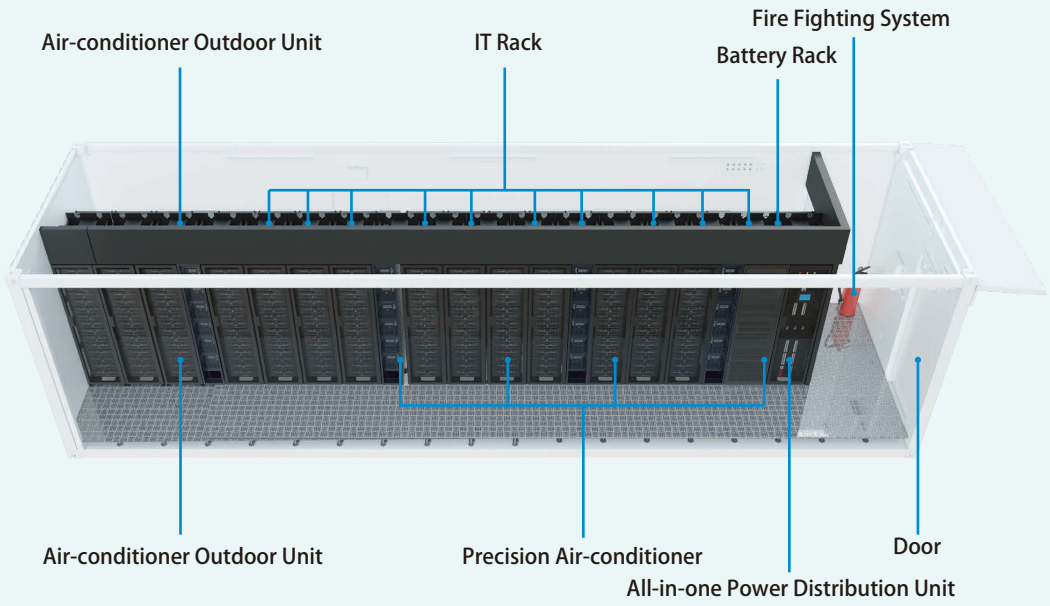
Technical Parameters

Recommended Solutions	Solution 1 (40ft)	Solution 2 (40ft)	Solution 3 (20ft)
Rack System			
Rack Dimension (W×D×H)mm	600×1100×2000	600×1100×2000	600×1100×2000
Rack Quantity (pcs)	14	10	5
Max Power per Rack (kW)	6	7	6
Total Power (kW)	84	70	30
Power Distribution System			
Power Supply System	Dual 400A Input /ATS (optional); 380/400/415V, 50/60Hz, 3Ph+N+PE; Input lightning protection: 8/20us, In=20kA, Imax=40kA	Dual 320A Input /ATS (optional); 380/400/415V, 50/60Hz, 3Ph+N+PE; Input lightning protection: 8/20us, In=20kA, Imax=40kA	Dual 125A Input /ATS (optional); 380/400/415V, 50/60Hz, 3Ph+N+PE; Input lightning protection: 8/20us, In=20kA, Imax=40kA
UPS System	150kVA, N+1 module redundancy	120kVA, N+1 module redundancy	60kVA, N+1 module redundancy
Battery System	Battery rack: 1pcs Battery: 6-FM-120*36PCS Backup time: 10mins	Battery rack: 1pcs Battery: 6-FM-120*36PCS Backup time: 12mins	Battery rack: 1pcs Battery: 6-FM-65*34PCS Backup time: 15mins
Cooling System			
Cooling Type	In-row forced-air cooling, 3+1 redundancy	Row Level Precision Air-conditioner, 3+1 redundancy	Row Level Precision Air-conditioner, 1+1 redundancy
Cooling Capacity	30kW for each, total 120kW	25kW for each, total 100kW	30kW for each, total 60kW
Sealed Aisle	Sealed Hot/Cold Aisle		
Monitoring System			
Monitoring Management	Centralized monitoring which includes UPS/CRAC/Power Distribution/CCTV/Access Control/Fire-fighting; Support audible & visual alarms and email alarm		
CCTV System	Supporting 4 or more HD cameras		
Access System	Three-in-one access control system (card + password + fingerprint) and face recognition (optional)		
Display System	Support local touch screen (10/21 inch), remote client, Web		
Fire Extinguishing System			
Fire Extinguishing	Automatic fire extinguishing system with audible & visual alarms, release the gas via fire linkage automatically		
Extinguishing Gas	FM200/ NOVEC1230 (optional)		
Structural System			
Container Size (H×W×L)mm	2896×3100×12192 (40ft)	2896×3100×12192 (40ft)	2896×3100×6058 (20ft)
Container Weight (kg)	14000 (without racks)	14000 (without racks)	7500 (without racks)
Aisle Width (mm)	Cold aisle width: 1200; Hot aisle width:600		
Protection	Waterproof, dustproof, mildew proof; Protection level: IP55		
Operating Environment			
Temperature (℃)	-40~55 (below -20℃, low temperature kit and water pipe required)		
Altitude (m)	≦1000, derating above 1000m		

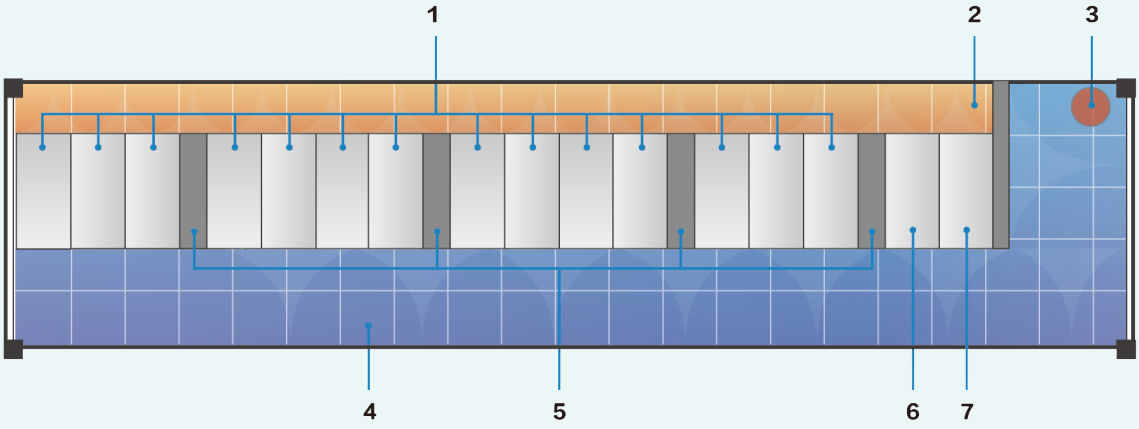
Product Layout

◎ Solution 1

▼ Internal



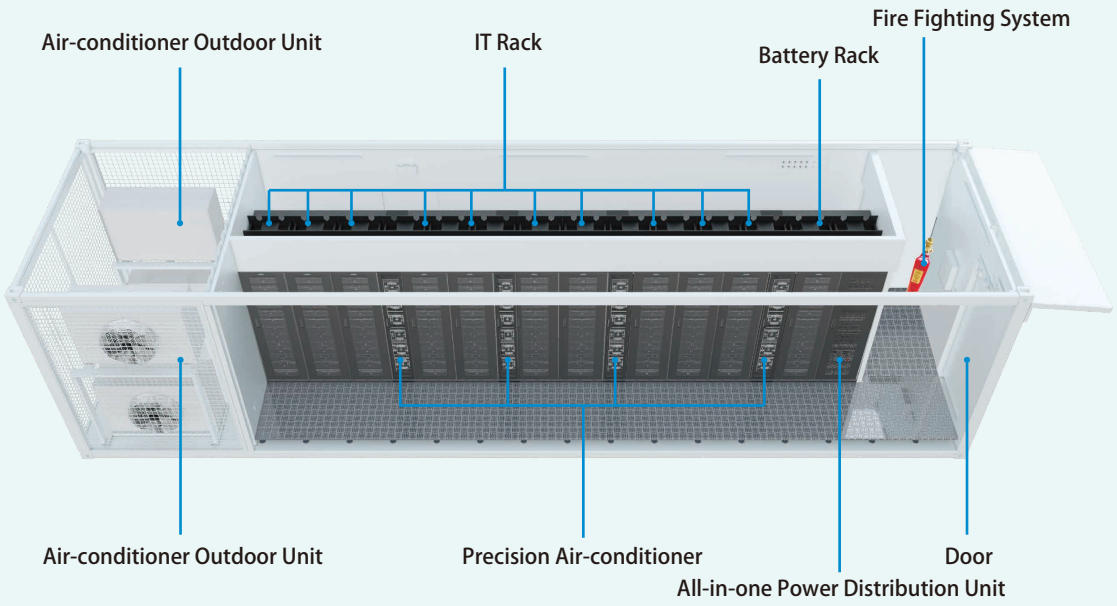
▼ Top View



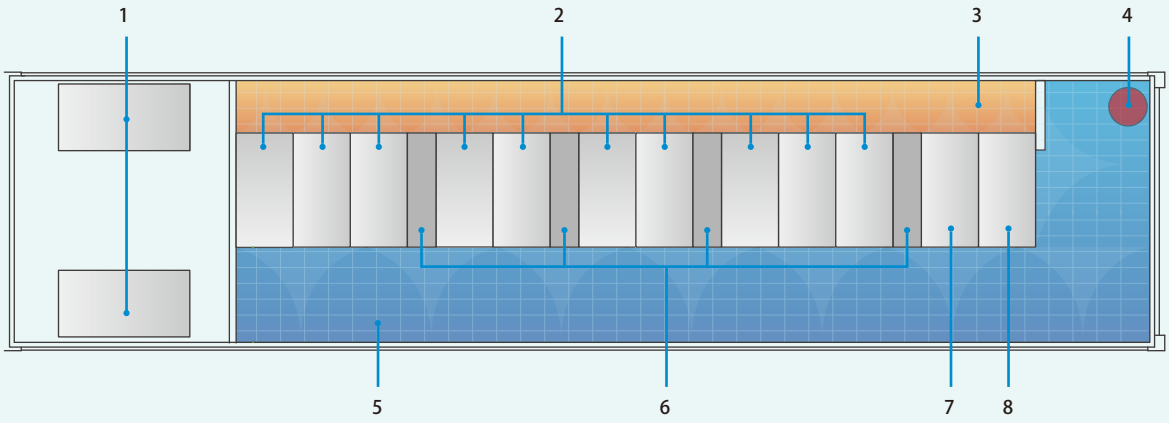
① IT Rack
② Sealed Hot Aisle
③ Fire Fighting System
④ Sealed Cold Aisle
⑤ Precision Air-conditioner
⑥ Battery Rack
⑦ All-in-one Power Distribution Unit

◎ Solution 2

▼ Internal



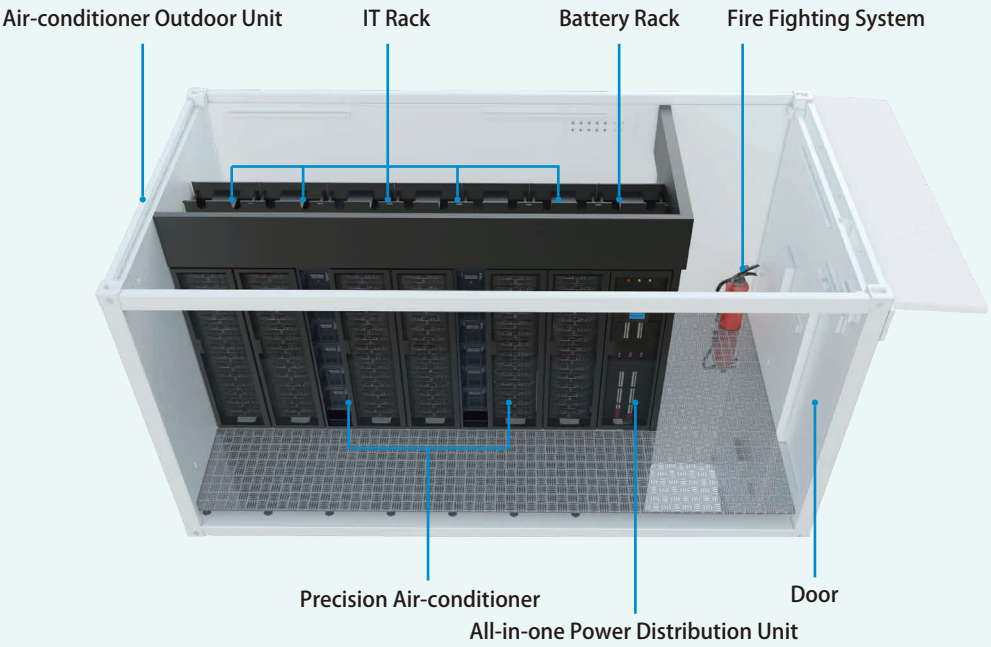
▼ Top View



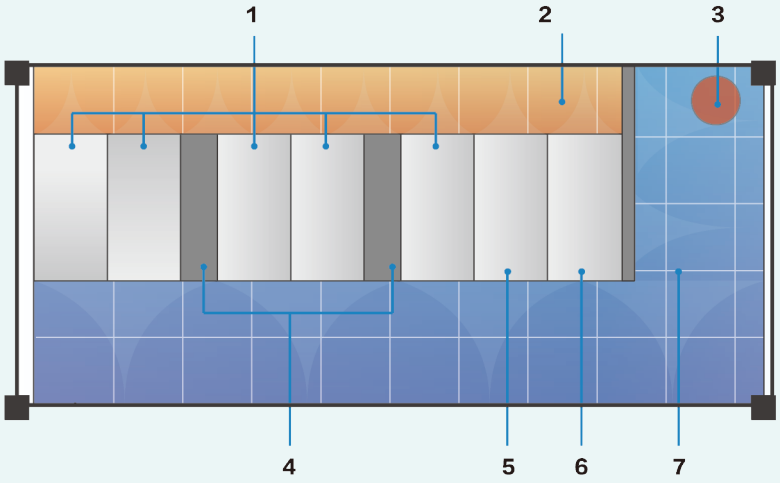
① Air-conditioner Outdoor Unit
② IT Rack
③ Sealed Hot Aisle
④ Fire Fighting System
⑤ Sealed Cold Aisle
⑥ Precision Air-conditioner
⑦ Battery Rack
⑧ All-in-one Power Distribution Unit

Solution 3

▼ Internal



▼ Top View



① IT Rack
② Sealed Hot Aisle
③ Fire Fighting System
④ Precision Air-conditioner
⑤ Battery Rack
⑥ All-in-one Power Distribution Unit
⑦ Sealed Cold Aisle

KSTAR

Website：www.kstar.com

CONTACT
Tel: +86-755-86169858
Fax: +86-755-86168482
E-mail: sales@kstar.com

HEADQUARTERS
Add: 4/F, No.1 Bldg.Software Park, Keji C. Rd. 2nd, Hi-Tech Industrial Zone, Shenzhen 518057, P.R.China

FACTORIES ADDRESS
Add: Kstar Industrial Park, Guangming Hi-Tech Industrial Zone, Shenzhen, P.R.China.
Add: Kstar Industrial Park, Fumin Industrial Zone, Guanlan Town, Shenzhen, P.R.China.
Add: Kstar Industrial Park, Zhongkai Hi-Tech Industrial Zone, Huizhou, P.R. China.

Kstar reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on kstar products previously or subsequently sold. Kstar does not guarantee the items of the accuracy and completeness.

Version number: KSD/C&C 2022-05