Cascade cooling system
-86°C ULT freezer



EVO-28-ULT

M-Cascade system ULT freezer that consists of two stages cascade cooling technology with absolute hydrocarbon refrigerant, which are R290 and R170 as natural gas.The inverter compressors programmed to help energy savings under long period preservation or provide fast temperature recovery while frequently door open to maintain specimens liveness.

0.7 ℃
Temp. fluctuation

5.6 Hrs
Pulling down to -80°C

0.6 H
Temp. recovery after door opened for 1 min

**Typical freezer data based on internal testing with freezer set point at -80°C and ambient temperature at 22°C.*

Features

Cascade system
Two stages cascade system

Touch screen
10"LCD touch screen

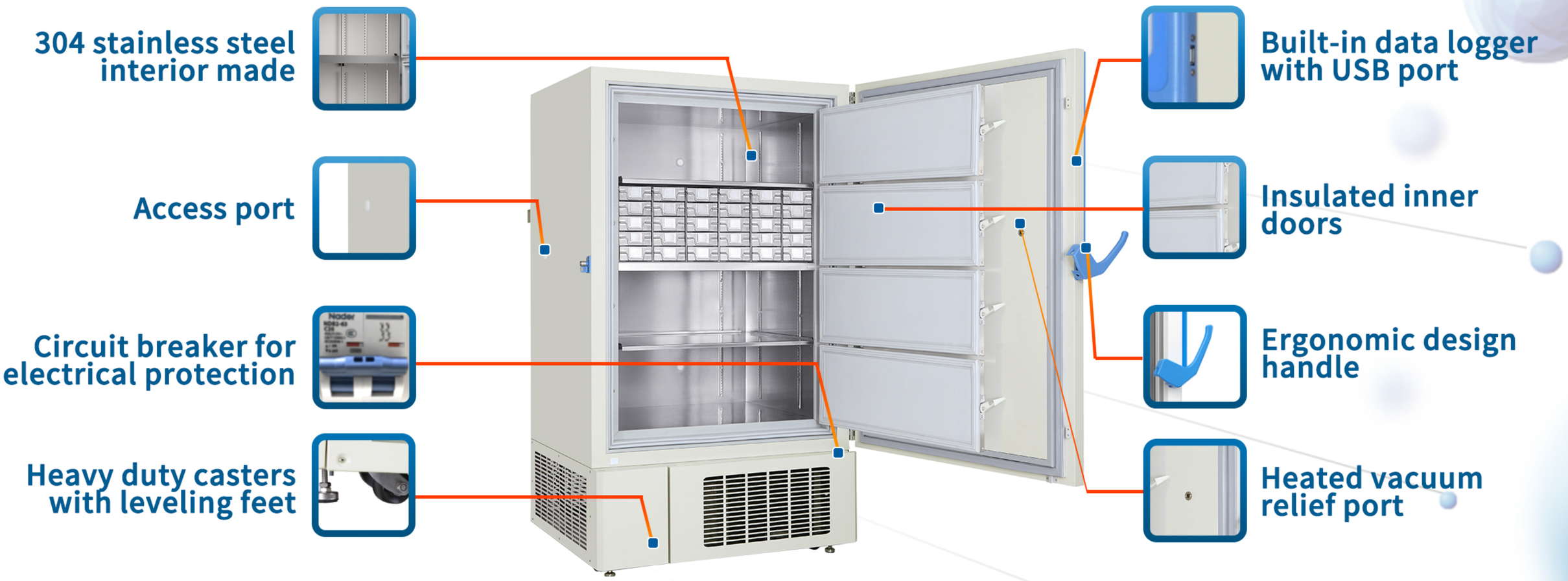
Hydrocarbon refrigerant
Environment-friendly natural gas

Inverter technology
Two inverter compressors

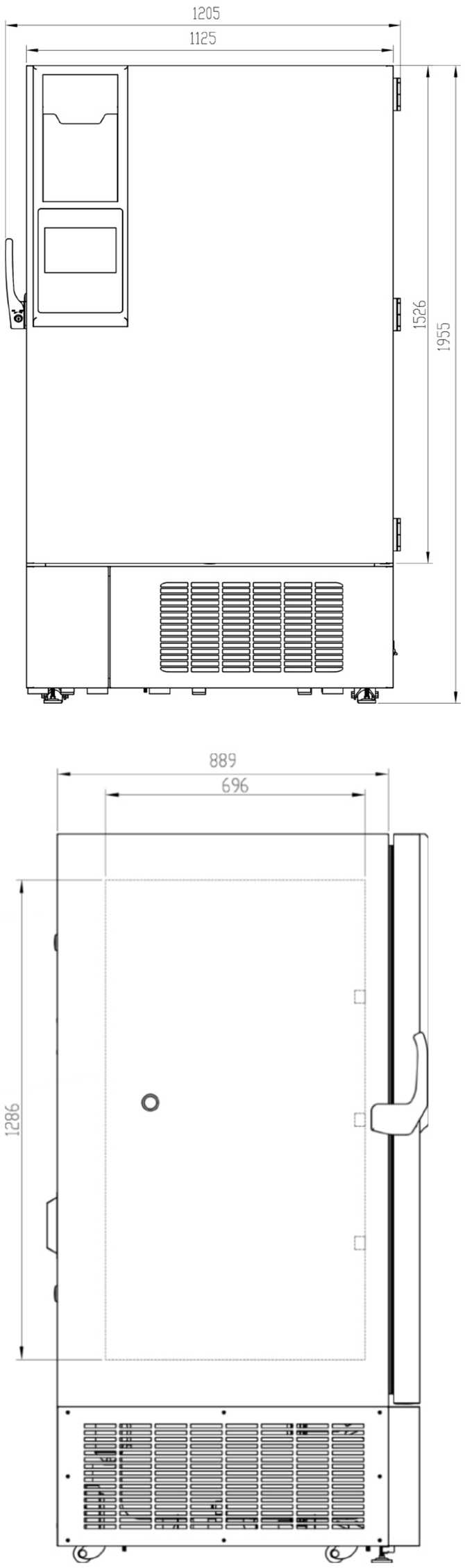
Vaccum insulation
VIP insulation foaming

Alarms system
10 kinds of alarm functions

Structure



Dimensions



Specification

-86℃ Ultra-low Temperature Freezer	
Model	EVO-28-ULT
Capacity	778L/27.5Cu.Ft.
Internal Size (W*D*H) mm/Inch	865*696*1286/34.0*27.4*50.6
External Size (W*D*H) mm/Inch	1205*1025*1955/47.4*40.4*77.0
Package Size (W*D*H) mm/Inch	1320*1155*2171/52.0*45.5*85.5
NW/GW (kgs/lb)	365(805lb)/462(1019lb)
Performance	
Temperature Range	-40～-86°C
Ambient Temperature	16-32°C
Cooling Performance	-86°C
Climate Class	N
Controller	Microprocessor
Display	10'' HD Intelligent Touch Screen
Refrigeration	
Compressors	2pcs
Cooling Method	Direct Cooling
Defrost Mode	Manual
Refrigerants	High stage: R290, Low stage: R170
Insulation Thickness(mm)	130
Construction	
External Material	Cold rolled steel sheet
Inner Material	Galvanized sheet
Shelves	3(stainless steel)
Access Test Port	3pcs. Ø 25 mm
Casters	4+(2 leveling feet)
Data Logging/ Interval /Recording Time	USB/Record every 5 minutes / 10 years
Interface	Remote alarm contact, RS485
Backup Battery	Yes
Alarms	
Temperature	High/Low temperature, High ambient temperature
Electrical	Power failure, Low battery, Battery power detection failure
System	Sensor failure, Main board communication error, Condenser overheating alarm, Door ajar
Accessories	
Freezer Rack Model	ZKL304-552B-CT
Freezer Rack/Box（Quantity）	24/600

Options

M-Cascade models support following optional features:

- ○ Modbus protocol for data transfer
- ○ Card access or finger print access
- ○ Comform to 21 CFR 11 regulation
- ○ CO2 back up system
- ○ Inkless temperature chart recorder
- ○ Racks & Boxes & Tubes

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