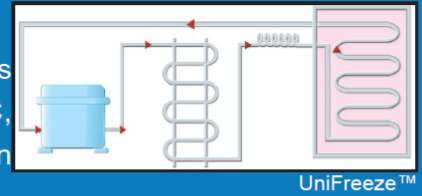


Freezer

SMART-Lab™ upright-type chest-type personal-type

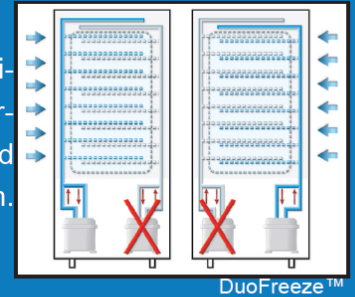
UniFreeze™ system

Single compressor ensures temperatures down to -86°C , minimized power consumption and minimized noise level.



DuoFreeze™ system

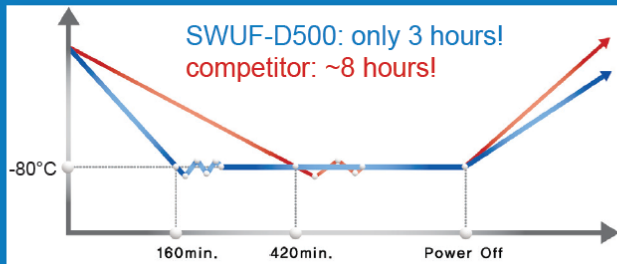
The combination of a doubled UniFreeze™ system ensures temperatures down to -95°C . The second system also acts as backup system.



Time taken to reach low temperature:

upright-type	UniFreeze™					DuoFreeze™			
	SWUF-80	SWUF-300	SWUF-400	SWUF-500	SWUF-700	SWUF-D300	SWUF-D400	SWUF-D500	SWUF-D700
Capacity	82 l	308 l	393 l	503 l	714 l	308 l	393 l	503 l	714 l
Down to -80°C	170 min	270 min	250 min	310 min	430 min	140 min	150 min	160 min	250 min

tested with room temperature of 30°C - 33°C



Green product

RoHs certified

No hazardous substances (Pb, Cd, Hg, Hex-Cr, PBB, PBDE) are used in all UniFreeze™ and DuoFreeze™ freezers!

Natural refrigerants

Instead of using HFC refrigerants (R-134a, R-404A, R-507) all UniFreeze™ and DuoFreeze™ models have a specially mixed refrigerant mostly consisting of natural materials.

Power consumption

UniFreeze™ SWUF-D500	Savings	Competitor (typical)
4.015 kwh/year	39%	6.570 kwh/year
3.212 kgCO ₂ /year		1.963 kgCO ₂ /year

calculated by the electricity-specific emission factors sourced from the IEA (2011a).

SMART-Lab™



- full touch screen TFT LCD:
- WiRe™ app service, remote control system
- variable program settings
- self-diagnosis and interactive temperature graph
- automatic data recording and password protection
- data transfer to PC by USB memory
- digital calibration (offset function)
- min-/max-temperature memory & program function
- push-alarm service to smartphone or tablet PC

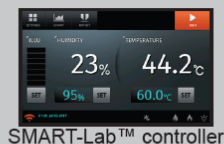
more information on page 8 - 11

IQ | OQ
available

Validation | IQ & OQ - page 12 for details

Freezer

personal-type, UniFreeze™ system, SmartLab™ controller, down to -86°C, 82 l



SMART-Lab™ controller



WiRe™ app service



SWUF-80 -86°C, UniFreeze™

Ideal for:

- ultra low refrigeration

Features:

- personal-type compact ultra-low temperature freezer
- freeze down to -86°C
- CFC-free refrigerant
- external temperature sensor hole
- block condenser removes filter
- filter-free mechanism lowers compressor heat
- easy maintenance and improved performance
- high-quality insulation panel and inner doors (powder-coated stainless steel) ensure defrosting around outer surface
- stainless steel interior & powder-coated steel body
- CE, UL/CUL & RoHS certified and unique serial number for tracing

Safety mechanism:

- push alarm service to your smartphone
- sensor error detection
- door locking system, door open error
- door ajar and power failure alarm
- standard warning and alarm functions

Controller:

- **Smart-Lab™ controller** with 7" touch screen TFT LCD:
 - ◆ WiRe™ app service, remote control system
 - ◆ variable program settings
 - ◆ self-diagnostic function
 - ◆ automatic data recording
 - ◆ data transfer to PC by USB memory
 - ◆ Internet connectivity with WiFi

IQ | OQ
available
page 12 for details



SWUF-80



different racks available

Model	SWUF-80
Capacity	82 l
Temperature range & sensor	-86°C to -65°C, at 30°C room temperature & 70% humidity, PT 100 sensor
Compressor	Hermetic type
Condenser type	block condenser, no pin, filter-free
Shelves	1 stainless steel shelf included
Max. rack quantity	4 pcs. of 12 (3x4) placed rack (RFU8)
Internal dimensions (W x D x H)	340 x 485 x 520 mm
External dimensions (W x D x H), net weight	530 x 687 x 1060 mm, 60 kg
Packing size (W x D x H), gross weight	960 x 760 x 1350 mm, 102 kg
Power supply	1 Phase AC 120V, 60 HZ or AC 230V, 50/60 Hz
Power consumption	321 w/h
Order number 230V	DH.SWUF0075
Order number 120V	DH.SWUF0175

Accessories: Suitable racks and temperature recorder can be found on page 105