

OFF-GRID THERMAL MANAGEMENT

Off-Grid Cooling Solution

VARICOOL Low-voltage Outdoor Cooling

A stand-alone low-voltage cooling solution for equipment, GRP enclosures and cabinets at remote sites with limited or no grid power. It operates from 10-40 V DC, can be combined with PV power and can be cascaded in parallel for larger cabinets and shelters.



~200 W

COOLING POWER L35/L35

75 W

POWER CONSUMPTION

10-40 V DC

SUPPLY VOLTAGE

+50 °C

MAX. AMBIENT

R-600a

35 G REFRIGERANT

01 KEY FEATURES

Product Highlights

Low-voltage Off-grid Operation

10-40 V DC Safety Extra-Low Voltage (SELV) operation supports stand-alone use with PV modules, with or without a battery buffer.

Modular Cascading

Multiple cooling units can be connected in parallel when additional capacity is required for larger cabinets and shelters.

Hybrid Cooling

Can be combined with an existing Passive Cooling Centre to create a hybrid cooling system.

Flexible Power Options

An optional AC/DC converter enables operation from conventional AC utility supplies.

SAFE LINK Support

INTERTEC engineering support covers sizing, design, assembly and final on-site installation.

Simplified Maintenance

Specified as maintenance-free, with periodic cleaning recommended according to heat-exchanger contamination.

02 TECHNICAL DATA

Technical Data

PARAMETER	SPECIFICATION	NOTES
Cooling power	Approx. 200 W	At L35 / L35
Supply voltage	10-40 V DC	Safety Extra-Low Voltage (SELV)
Power consumption	75 W	-
Max. ambient temperature	+50 °C	-
Evaporator dimensions	516 x 540 mm	Internal heat-exchanger plate
IP class	IP20	Final rating depends on mounting housing
IEC protection class	Class III	Safety Extra-Low Voltage
Refrigerant	R-600a (Isobutane) / 35 g	Hydrocarbon refrigerant
Maintenance	Maintenance-free	Periodic cleaning recommended according to heat-exchanger contamination

03 ENGINEERING NOTES

SELV / Cascading

SELV

Low-voltage DC Operation

The 10-40 V DC supply range supports integration with PV-based power systems at remote sites.

CASCADING

Capacity Expansion

Multiple units may be cascaded in parallel to meet the cooling demand of larger cabinets and shelters.

HYBRID

Passive Cooling Integration

Can be combined with an existing Passive Cooling Centre for a hybrid thermal-management configuration.

04 APPLICATION COMPARISON

Application Comparison

ITEM	GRP BOX APPLICATION	GENERAL CABINET / SHELTER
Retrofittable	Not available (factory assembly only)	Available (retrofit package)
C-rail metal mounting plate	Included as standard	Not included (optional if required)
Dimensioning / sizing	Performed by manufacturer	Performed by manufacturer

05 OPTIONS

Options

POWER OPTIONS

Available Configurations

- PV module for stand-alone power operation
- PV system including battery buffer and dedicated controller
- AC/DC converter for various utility AC supply inputs
- Customer-specific mounting accessories and plate configurations

SAFE LINK

Engineering & Installation Support

INTERTEC engineering support covers sizing and design through equipment assembly and final on-site installation.



SENEL

Technical Sales & Engineering
sales@senelworld.com | 010-9732-5669
www.senelworld.com | Seoul, Republic of Korea

