

MAK DEFENCE SHELTER AIR CONDITIONING UNIT



CAPACITY RANGE 1.5 TR | 2.0 TR | 2.5 TR | 3.0 TR | 3.5 TR



MAK CONTROLS AND SYSTEMS PVT. LTD.
AIR+MAK INDUSTRIES INC.
SERVING DEFENSE AND AVIATION FOR FIVE DECADES IN 40+ COUNTRIES



www.makcontrols.com
www.airmak.com

ENGINEERED FOR EXTREMES. TRUSTED IN DEFENCE.

Engineered for mission-critical defence environments, the MAK DACU Series delivers reliable and precise climate control under extreme operating conditions.

Designed to comply with stringent military and environmental standards, these wall-mounted units ensure uninterrupted operation, low acoustic signature and high maintainability for defence shelters deployed in diverse terrains and climates.

In-House Testing Facilities

MAK Controls and Systems (P) Ltd is equipped with advanced in-house testing facilities to ensure product reliability, MIL-grade compliance, and performance validation under extreme conditions.



PSYCHROMETRIC TEST CHAMBER



- Environmental Climatic Test Chamber
- Thermal Shock Test Chamber
- Bump Test Facility
- Specially Designed Psychrometric Test Chamber for DACU Validation



APPLICATIONS

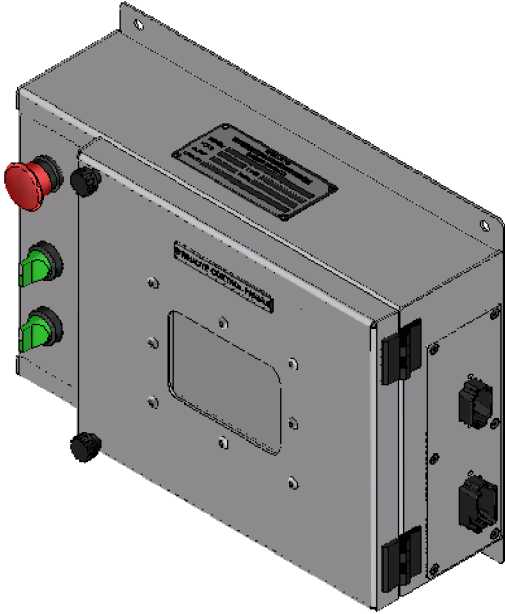
- Command Shelters
- Radar Shelters
- Communication Shelters
- Mobile Defence Units

SPECIAL FEATURES

- JSS 55555 & MIL-STD-461G compliant for defence shelter applications
- Rugged SS-304/Al alloy construction, IP55 protection for harsh environments
- Wide operating range: -20°C to $+55^{\circ}\text{C}$, up to 4000m altitude
- High-efficiency scroll compressor with micro-channel condenser (e-coated)
- Reduced refrigerant charge & compact lightweight design
- Microcontroller-based controls with HMI and comprehensive safety protections
- Low acoustic signature suitable for command and communication shelters
- High reliability (MTBF >25,000 hrs) with front-serviceable maintenance

MISSION-READY CLIMATE CONTROL INTELLIGENCE

ADVANCED MULTI-UNIT CLIMATE CONTROL SYSTEM FOR DEFENCE SHELTERS



Product Overview

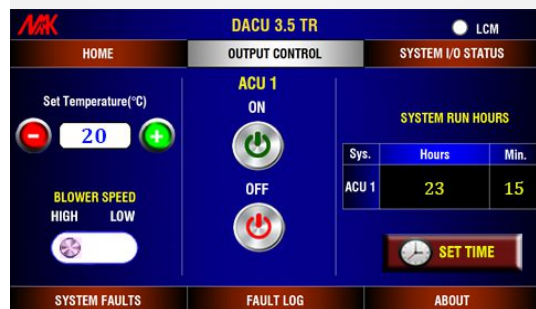
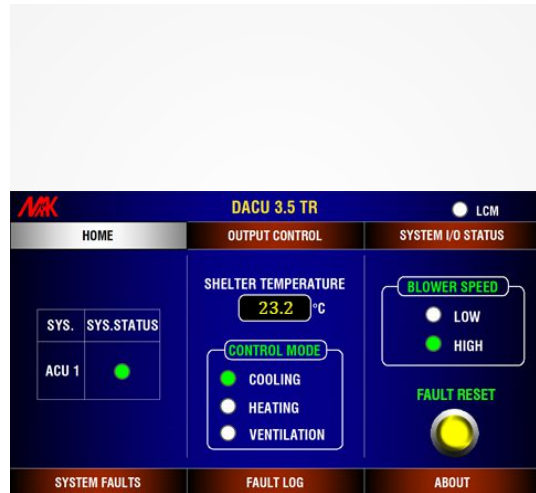
MAK Controls and Systems (P) Ltd has designed and developed the DACU Group Remote Control Unit (RCU) to intelligently operate and monitor up to four DACU units through a single wall-mounted controller. Engineered for mission-critical defence environments, the system ensures precise temperature regulation and reliable performance under ambient conditions up to +55°C.

Key Features

- Controls up to 4 DACU units from one controller
- Microcontroller-based intelligent system
- Auto / Manual mode selection
- Cooling, Heating & Ventilation operation
- Built-in fault logging & diagnostics
- MIL-grade rugged construction
- RS 485 / CAN / RS232 communication support

Technical Highlights

Set Temperature Range	: +18°C to +27°C
Operating Temperature	: -20°C to +55°C
Storage Temperature	: -30°C to +70°C
Power Supply	: 230V, 1 Phase, 50Hz
Mounting Type	: Wall Mounted
Dimensions (L x H x W)	: 410 x 158 x 315 mm



Monitoring & Control Functions

- Phase sequence, Low & High pressure status
- Pre-heater sense status
- Cabin temperature & humidity monitoring
- Emergency stop status
- Compressor, Heater & Blower ON/OFF control
- Low pressure, High pressure & Phase reverse logs

Precision Engineered Climate Control Solutions for Defence & Critical Infrastructure

TECHNICAL SPECIFICATION

Model	DACU 1.5TR	DACU 2TR	DACU 2.5TR	DACU 3TR	DACU 3.5TR
Power supply	400V, 3 Ph, 50Hz				
Type	MIL STD - Wall mounted				
Air flow , CFM	500	700	700	1000	1200
Shelter cabin temperature , °C	18-30				
Cooling capacity , Btu/Hr	18000	24000	30000	36000	42000
Heating capacity , Watt	3000	4000	5000	6000	7000
Operating temperature, °C	-20 to +55				
Storage temperature , °C	-30 to +70				
Compressor	Scroll				
Refrigerant	R407C				
Condensing temperature, °C (°F)	67(152.6)				
Evaporating temperature, °C (°F)	8(46.4)				
Max. Current(Cooling Mode) , A	9 ±3	11 ±3	12 ±2.5	12 ±3	12 ±3.5
Max. Starting Current , A	~25	~30	~30	~35	~42
Control System	Micro controller based advanced intelligent control system with USER HMI				
Dimension & Weight					
Height, ± 10 mm	1389	1389	1500	1500	1580
Width, ± 10 mm	505	505	620	620	560
Depth, ± 10 mm	574	574	580	580	576
Weight, ± 5 kgs	130	140	150	160	170
Note: Dimension and weight are subject to change due to continuous product improvement.					

CONTACT US

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