Eltek Cooling Box

Type C2

Eltek is a world leader in the development of telecom power systems / solutions that are designed to meet the rapid growth within the field of telecommunication, as well as the increasingly stringent reliability requirements. A key to this reliability in the outside plant is creating a cool, dry and secure environment for the electronics. The Eltek Cooling Box incorporates an optimized thermal system controller and a high efficient Fan and Filter Solution that will keep even the most sensitive electronics functioning.

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Doc 2142101 – rev4

PRODUCT DESCRIPTION

Eltek's cooling box (ECB) is a cost effective and power saving solution for cooling and OPEX saving initiatives for the modernization of Telecom Shelters.
The ECB has the advantage that a large amount of ambient air can be filtered / exchanged, giving very high cooling performance with low power consumption while maintaining the internal environmental temperature, dust and humidity.
The ECB when used with Eltek's SmartPack Controller technology enables a total shelter environmental control including any installed box, split type or Inverter type Air conditioner.

APPLICATIONS

- Telecom BTS 2G,3G,4G (LTE) Shelter
  -Repeater Station
  -Wimax
  -Broadband
- GSMR
- Industrial

KEY FEATURES

- GALVANISED STEEL CONSTRUCTION
- LOW COST SINGLE BOX SOLUTION FOR ALL TYPES OF SITES.
  -New sites, Modernization of existing sites
- LIGHT WEIGHT AND EASY TO INSTALL.
- UNIQUE FAN SPEED DESIGN
  -Full speed control 0 to 100%
- MAXIMIZE FAN LIFE WITH REDUCE MAINTENANCE COSTS.
- DELTA ΔT TRACKING.
  -Internal temperature probe, External temperature probe and-Humidity sensor (optional)
- HORIZONTAL MOUNTING AIR FLOW
- DATA LOGGING USING ELTEK SMARTPACK CONTROLLER
  -Temperature logging: Indoor, Outdoor, Fan speed and Event Logger (ACU Run Time)
- EVENT & DATA LOGGER FILES RETRIEVABLE BY USING SD CARD
- ALARMS: FAN FAIL, HIGH TEMP, MCB TRIP, FILTER BLOCK (OPTIONAL), SYSTEM SHUTDOWN (FIRE CONTROL - OPTIONAL)
- ABLE TO CONTROL EXISTING AIRCON SYSTEM (MAX 2)
- COMPLETE SITE OVERVIEW
  -locally and remotely with Multi-Site Monitoring (Web Power , LAN connection)
- ONE CONTROLLER FOR ALL SITE FUNCTIONS
  -Basic control - I/O Monitor Type 3
  -Advanced control – Smartpack 1 or 2 + I/O Monitor Type 3

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INPUT DATA	48VDC	24VDC
Air Flow	2000m^3/h	2000m^3/h
Power (Avg)	198 W (with zero pressure drop)	233 W (with zero pressure drop)
Cooling Capacity (ΔT=2.5^{0}C) (ΔT=5^{0}C) (ΔT=10^{0}C)	 1.5 KW Heat Load 3.0 KW Heat Load 6.0 KW Heat Load	 1.5 KW Heat Load 3.0 KW Heat Load 6.0 KW Heat Load
DC Current (Max)	5.5 A	14.6 A
DC Input	36-57 V	16-32 V
Fan	○ backward curved blades offering an extreme aerodynamic airflow efficiency ○ Impeller: sheet aluminum, laser-welded Rotor: coated in black ○ control input 0-10 VDC / PWM ○ tach output ○ over-temperature protected motor ○ reverse polarity and locked-rotor protection, rotation is CW.	
CF Filter Series (Std)	G4: 1.1 m^2 [EN779] at Max 200PA and 2600m^3/h	
EF Filter series (washable filter options)	G4: 1.0 m^2 [EN779] at Max 250PA and 2500 m^3/h	
Operating temperature	-20 to +65 ^{0}C	
Operating Humidity	RH 0-95%	
Weight	Approximately 21 kg	

CONTROLLER SPECIFICATIONS		
Basic Control	Standalone - I/O Monitor Type 3	
Dual Control	1 Controller can control 2 ECB Fans	
Advanced Control	Smartpack 1, 2 + I/O Monitor Type 3	
Alarms	○ Relay Alarming N/O – N/C ○ Configurable Inputs / Outputs ○ Climate Control	○ Filter Clog (optional) ○ System Shutdown (Fire Control - optional)
Event Log	○ Alarm Log ○ ECB On/Off	○ ACU On/Off
Data Logging SP1 or SP2 Integrated (See configuration)	○ Temperature (Indoor, Outdoor) ○ Fan Speed	○ Fan Deviation

CONSTRUCTION SPECIFICATIONS	
ECB	Galvanised Steel
Filter Change	Removable access panel for fast filter change
Filter Detection	Optional: sends an alarm when filter gets clogged
Fire Alarm Relay	Optional: receives alarm signal from external input and deactivate the fan
Security	Minimum intrusion risk with no external exposed fixings or access
Exhaust Damper Outlet (std)	99.9% reliable pressure damper with internal & external bug traps

PHYSICAL SPECIFICATIONS	
ECB	H x W x D: 400 x 502 x490 (mm) **Note:** when mounting the ECB, the wall thickness should not be more than 100mm.
Standard Exhaust Damper with Rain Cover	H x W x D: 370 x 400 x 310 (mm)
Optimised Exhaust Damper Rain Cover	H x W x D: 540 x 550 x 270 (mm)
Temperature Probe Cable Lengths	5 Meters

DESIGN STANDARDS	
Electrical Safety	EN 60950-1 : 2006 + A11:2009 + A1:2010 + A12:2011
EMC	ETSI EN 300 386 V1.5.1 : 2010 EN 61000-6-1 : 2007, EN 61000-6-2 : 2005, EN 61000-6-3 : 2007 + A1:2011, EN 61000-6-4 : 2007 + A1:2011
Environment	RoHS and WEEE compliants

Specifications are subject to change without notice

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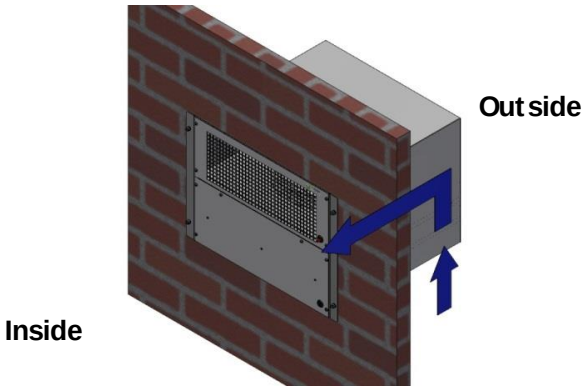
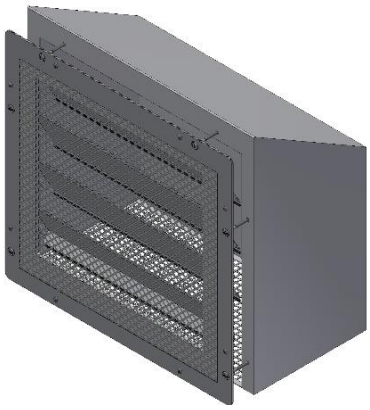
ELTEK COOLING BOX TYPE C2 MOUNTING



OPTIMISED EXHAUST DAMPER WITH RAIN COVER



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Configuration	IFS Part Number 48VDC (G4)	IFS Part Number 48VDC (F5)	IFS Part Number (24VDC)
Fan & ACU mode Integrate into new/existing rectifier system - G4 or F5 CF Filter	ECB0103.003	TBA	TBA
Fan & ACU mode Standalone ECB with control box (Note: includes CAN Power) - G4 or F5 Filter	ECB0103.004	TBA	TBA
Fan & ACU mode Standalone ECB with control box & SP2 as display (Note: includes CAN Power) - G4 or F5 Filter	ECB0103.006	TBA	TBA
Fan & ACU mode Standalone ECB with control box & SP2 as display (with Filter Block Detector) (Note: includes CAN Power) - G4 or F5 Filter	TBA	ECB0103.1061	TBA
Fan & ACU mode Standalone ECB with control box & SP2 as display (with Filter Block Detector & Fire Alarm Relay) (Note: includes CAN Power) - G4 or F5 Filter	ECB0103.116	TBA	ECB0203.116
Consumables			
Part Number (Filter Options)	○ 287628 ○ 287629 ○ 290201 ○ 290203		G4 Filter 495 x 455 x 45 CF F5 Filter 495 x 455 x 96 CF G4 Filter 495 x 455 x 48 EF F5 Filter 495 x 455 x 96 EF

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