

REQUEST FOR QUOTATION

# Outdoor TV Enclosure

Custom Manufacturing Specification

75" Premium Weatherproof Enclosure for Middle East Market

# APEX

TV ENCLOSURES

## Project Details

Product:	Outdoor TV Enclosure (75" model)
Target Market:	UAE / Saudi Arabia (Gulf Region)
IP Rating Required:	IP66 (dust tight + powerful water jets)
Initial Order:	2-3 prototype samples for evaluation
Date:	December 2025

## 1. Executive Summary

We are seeking a contract manufacturer to produce premium outdoor TV enclosures designed specifically for extreme Gulf climate conditions (55°C ambient, high UV, dust storms, heavy rain).

### Critical Requirements

- **IP66 Rating:** Must pass IEC 60529 water jet test (100L/min, 12.5mm nozzle, 3m distance)
- **Material:** 5052-H32 aluminum (NOT 6063) for superior corrosion resistance
- **PWM Fan Control:** Variable speed fans, NOT on/off thermostat
- **Temperature Rating:** Operate in 55°C ambient without TV damage
- **Build to Spec:** Manufacture to our design only - this is confidential

## 2. Product Overview (75" Model - ATE-75)

### External Dimensions

- Width: 1720mm
- Height: 1020mm
- Depth: 120mm
- Weight: ~32kg (empty)

### Construction

- Material: 5052-H32 aluminum
- Thickness: 2mm walls, 3mm frame
- Finish: Powder coat RAL 7016
- Hardware: 316 stainless steel

### Weatherproofing

- Rating: IP66 certified
- Gaskets: EPDM continuous channel
- Vents: IP66 labyrinth grilles
- Cable glands: IP68 rated

### Thermal System

- Fans: 3× 140mm PWM (Noctua or equiv)
- Control: 30°C start, 50°C full speed
- Sensors: 2× NTC thermistors
- Airflow: Bottom intake, top exhaust

## 3. Key Design Features

Feature	Apex Specification	Why This Matters
Fan Control	PWM ramping 30-50°C	Quieter operation, longer fan life, better thermal control
IP Rating	IP66 (powerful jets)	Withstands heavy rain, hose-down cleaning, dust storms
Ambient Rating	55°C continuous	Designed for Gulf summer conditions

Aluminum Grade	<b>5052-H32</b>	Superior corrosion resistance for coastal/humid environments
Full Motion Mount	<b>Included</b>	Complete solution, no additional purchases needed

## 4. Technical Drawings

### 4.1 Rear Panel Internal Layout

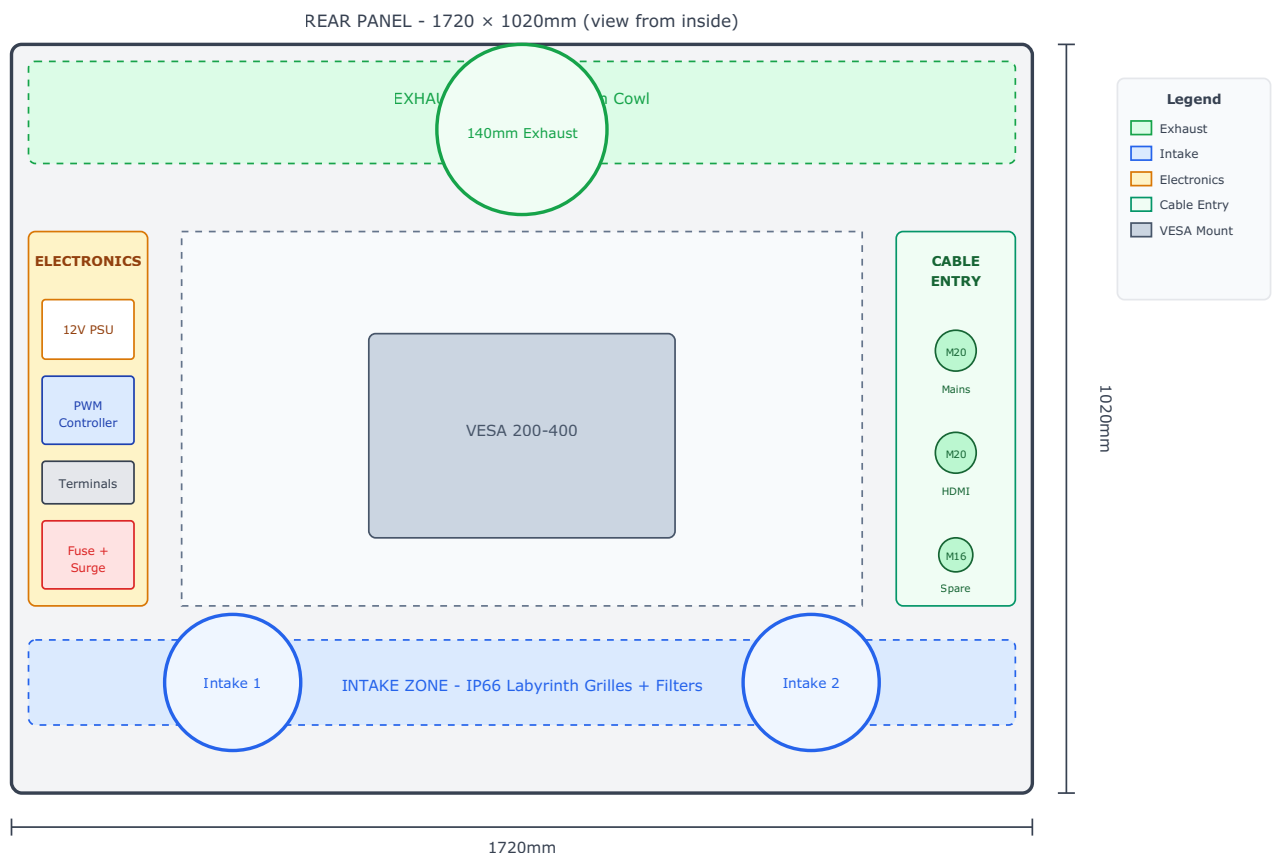


Figure 1: Rear panel internal layout showing component zones

4.2 Side Cross-Section - Airflow Design

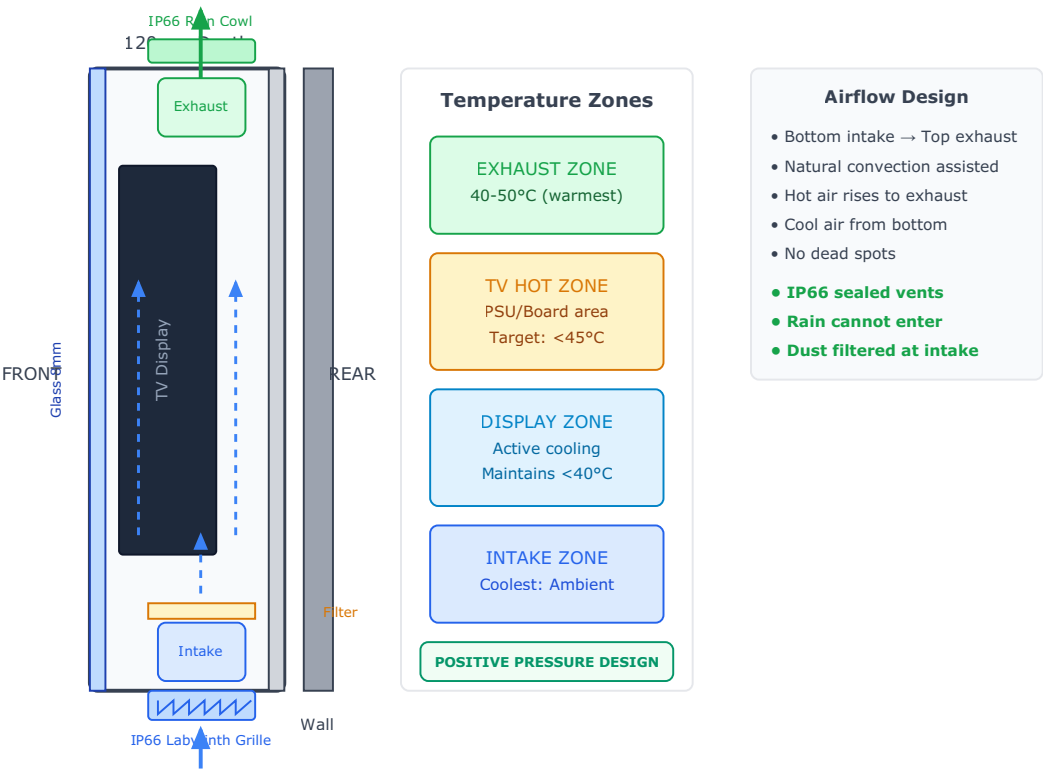


Figure 2: Side cross-section showing vertical airflow path and temperature zones

## 5. Bill of Materials Summary

Category	Description	Key Specifications
Enclosure Frame	Main housing, back panel, bezel	5052-H32 aluminum, 2-3mm thickness, powder coated RAL 7016
Front Glass	Laminated safety glass with AR coating	4mm low-iron tempered + PVB + 4mm clear, anti-reflective
Seals & Gaskets	EPDM continuous channel gasket	12×15mm profile, UV stable, closed-cell, IP66 rated
Fans (×3)	140mm PWM DC fans	Noctua NF-A14 or equivalent, IP67, 4-pin PWM, ball bearing
IP66 Intake Grilles (×2)	Labyrinth vent with internal baffles	UV-stable ABS or 316 SS, downward louvers, 150×150mm
IP66 Rain Cowl	Exhaust hood with labyrinth exit	Powder-coated aluminum, 40mm overhang, 316 SS mesh
PWM Controller	Custom PCB with MCU	2× NTC inputs, 3× PWM outputs, status LED, alarm buzzer
Power Supply	12V DC, 3A enclosed PSU	Mean Well LRS-35-12 or equivalent, 85-264VAC input
Cable Glands	IP68 compression glands	2× M20, 1× M16, 1× M12 breather, 316 stainless steel
Door Hardware	Hinges, gas struts, latches	3× concealed hinges, 2× gas struts, 4× compression latches
Security	Cam locks, padlock hasps	2× tubular cam locks (keyed alike), 2× padlock hasps
TV Mount	Full-motion articulating arm	VESA 200-400, ±90° swivel, +15°/-5° tilt, 500mm extension

## What We Need From You

1. Sample quotation for 75" prototype
2. Production pricing with volume breaks
3. Prototype + production lead times
4. Confirm IP66, PWM, material capabilities
5. Willingness to sign NDA

## Contact Us

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Thank you for your interest — We look forward to working with you