

GREEN SHELTER

WITH NEXT STEP INNOVATION



Introduced by ACME, the 'GREEN SHELTER' concept is an integrated energy management solution that optimises/minimises the energy need at telecom sites.

Green Shelter comes with an efficient & optimum cooling and power management system along with built-in thermal and electrical back-up for 2 to 8 hours. This helps in avoiding the running of high-cost secondary power back-up systems like diesel generators. The design thereby helps in reducing the overall operational costs by 30-40% as compared to a conventional telecom shelter.

Green Shelter design has proved to be an efficient solution to run the telecom sites in the areas having:

- **Wide fluctuations and surges in mains power**
- **Power outages of 2 to 8 hours in a day**

ACME's Green Shelter is a packaged solution and comprises four energy-efficient components:

- **Nano Cooled Shelters**
- **Power Interface Unit "PIU"**
- **Thermal Management System "TMS"**
- **Telecom Air Conditioners with free cooling**

ACME's Nano Cooled Green Shelters have been designed keeping in mind the needs of the telecom operators and are available in various sizes and design parameters. These expandable and modular shelters are designed for long life to withstand harsh environments and minimise solar gain. These are also crafted for light weight flat pack supplies. Pre-built ready to install shelters utilise latest tongue & groove arrangement for the panel locking, which provides uniform locking of panels ensuring high quality of installations.

Power Interface Unit is a comprehensive AC power management rack comprising of static line conditioner, lightning & surge protector, AMF panel with best phase selector, AC distributor and network management system. It has a small foot print of 600mm x 400mm with a wide input range of 110v 480v. It has a faster response time of 400v/micro second with high efficiency of 97.5%.

Thermal Management System "TMS" has a thermal back-up of 2 to 8 hours during mains failure to delay DG running. ACME's TMS comes with a complete package including Diesel Generators (DG) Management System and Software Kit.

Telecom Air Conditioners with high efficiency (COP > 2.7) comes with an in-built Free Cooling & Emergency Cooling option and are also available with power input DC 24v/48v.



ACME's state-of-the-art automated, continuous shelter manufacturing plant in Pant Nagar, India, is the first facility of its kind having high manufacturing standards for optimum quality of shelters. The manufacturing facility is ISO 9001 2000 certified.

Maximising efficiency. Multiplying value.



Technical Specifications*

Description	Standard Specification
Type of shelter	Rivetless type or normal type
Rivetless shelter	The shelter is state-of-the-art product with beautiful aesthetics and elegant finish. Roof, floor and walls are joined using Aluminium profiles. Due to its advanced design it saves lot of installation time.
Normal shelter	Shelter structure is made by joining walls, roof & floor by flashings with rivets
Size	As per customer requirement, some common sizes are as below 2.5(W) x 2.0(D) x 2.7(H) 2.5(W) x 3.0(D) x 2.7(H) 2.5(W) x 4.0(D) x 2.7(H) Door is on 2.5M face
Thickness	
a. Wall panel	60mm/ 80mm or as specified by customer
b. Ceiling/Roof	Following types of roof can be provided Tapered roof, Secondary roof and Slanted roof Secondary roof : Slope from 1 degree to 3 degree Tapered roof: 80mm at centre & 40mm at edge Slanted roof: Slope 20, 30, 40 degree
c. Inner skin	> =0.6mm PPGI
d. Outer skin	> =0.6mm PPGI
PU foam specification	
PU foam thickness	>=58.8mm for 60mm panel or 78.8mm for 80mm panel
PU foam density	>=40 Kg/cubic m
K Value	0.0214 W/MK
Lock	One no.
Flashing	0.6 mm PPGI inside & 1.0mm PPGI outside joints
Floor	Floor with 18mm marine ply board & PUF panel 60mm with internal / external pipe reinforcement or external ISMC arrangement depending on the customer floor loading requirement
Permissible floor loading	2.0 T/Sqm / 2.5T/Sqm or more if required by customer

Description	Standard Specification
Door	Integrated door panel with aluminum channel, 100% airtight
a. Type	Single leaf
b. Opening size	970x2000mm
c. Inner skin	> =0.6mm
d. Outer skin	> =0.6mm
e. Thickness	60mm/ 80mm or as specified by customer
f. Locking mechanism	Cylinder type
Beam	ISM Beam-150/WSM Beam-200 duly galvanised with base plate, template & J Bolts to sustain the desired load
Silicon sealant	Transparent/ White type – GE
Panel locking arrangement type	Tongue & Groove
Cutout flashers for AC & ROXTEC	0.6mm/ 0.8mm PPGI
Accessories	Door stopper, Do's / Don't aluminum sticker, Door closer
Exposure	Sun light/ Rain/Snow
Roof load capacity	200 Kg/ Sqm
C- Rails (Optional)	Al C-rails for fixing equipment inside
Anti-static flooring specs.	2.38mm thick, three tier anti-static mat
Earthing for anti-static flooring	Copper foil, 50mm wide, 0.05mm thick laid below 3 Layer PVC anti-static mat connected at one point with earth, with 3 buttons
Sunshade/ Door canopy	1200mm wide to cover door width, 0.6mm thick PPGI sheet
Door step ladder (optional)	MS ladder
Permissible wind speed	180Km/ hr
Life of shelter with desired properties including FRP (from the date of installation)	15 Yr
Additional reinforcement on side wall and ceiling for cable tray, equipment, AC's etc.	Provided
Sticker for AC, Warning, etc.	Provided
Additional stiffener plate for mounting the AC	Provided
Aluminium plate with gland and rubber gasket (airtight) at power cable entry at floor	Provided
Water proofing	Water proof
Water proofing for roof (optional)	Water proofing compound for roof provided (optional)