



G3systems

# Standard Container

- Steel Based purpose built ISO style shelter CSC approved
- Operation at -46°C to +55°C
- 10 kW of Air Conditioning and 4kW of controlled heating
- Protected power outlets via 3kVA built in UPS  
Internal noise levels below 60dB(A)
- 14ft6 (4420mm), 20ft (6048mm), 30ft (9144mm) and 40ft (12192mm) options
- Power design to BS7671 with fail safe earthing
- Compatible with FEPDS
- Standard is pre-installed with filtered comms I/O including
  - 50 way commercial telephone via Krone terminals
  - SAT comms and wide band fibre optic
  - DON 10
- Full CES pack
- Operational from vehicle or ground mounting
- Direct interfacing to In-service Tentage using Tent Interface Shelter
- Operational configurable internal lighting
- Standard 4 man workspace
  - 14ft container, 6 man - 20ft container
- Internal layout, power and comms can be configured to customer's requirements
- Optional 60dB RFI and EMP shielding
- DROPS rack incorporated





G3systems

# Specification

## GENERAL

The standard container can be configured to suit a variety of roles from Communications, Office HQ, Logistics, Equipment shelter at remarkably low cost and 'Off the Shelf' from G3 Systems.

G3 Systems has already delivered more than 340 shelters of this type in the last 18 months

**Can your project gain from this scale of supply and also benefit from utilisation of in service equipment?**

## CONTAINER

The system is housed in a steel based CSC approved ISO 1D style container 4420mm long as standard, other size options are available. Insulation utilised is high thermal performance Rock wool and the container is lined with a lightweight aluminium honeycomb composite panel. The result is a high strength, durable but lightweight CSC approved container solution. The container interface is designed to meet the requirements of ISO 1D and is fitted with ISO corners at the 10ft dimension as well as an array of J Bolt fixing points. The container can be lifted via the top or bottom ISO corners and integrated fork lift pockets.

## ENVIRONMENTAL

From an environmental perspective, operation at  $-46^{\circ}\text{C}$  has required careful selection of material and components. A common sense approach has been taken with the design. The philosophy was to select major components that can withstand the extremes of temperature non-operational with the primary heating and electrical distribution system capable of operation over the full climatic range. This enables the container to be brought up to operational temperature before other systems are brought on line. For general operation a single ACU is fitted but a second ACU fitting facility is provided for use in hot climates.

## HUMAN FACTORS

Four (4) operators are accommodated in the 4420mm container layout. Human factors analysis has shown that their allocated workspace exceeds the requirements of Def Stan 00-25 and thus provides a comfortable working environment. The ACU and UPS (Un-interruptible Power Supply) have been selected to minimise ambient noise levels within the container to below 60dbA. Sufficient storage space has been allocated for the operator's personal kit, container CES, ancillary items and documentation to enable the operational system to be set up quickly and remain well organised. Tie downs are provided in the container for transporting the MoD systems equipment within its dedicated packaging containers.

## POWER

The electrical system has been designed to be fully compliant to BS7671 and all electrical equipment is protected to IP55/IP65. The primary electrical safety feature is the earth monitoring system. This operates in a similar manner to the FEPDS system by passing a small monitoring current between two deployed earth stakes. The monitoring system continually monitors the earth loop impedance and if this falls below a preset level the mains supply is interrupted automatically. The earth monitoring system test facility is accessible from the external power panel thus ensuring the container is safe before power up. The internal components of the earth monitor are fitted with a resistance heater to enable operation at  $-46^{\circ}\text{C}$ . The incoming power enters the container via a main fuse and two separate distribution circuits housed in the same distribution board. The low temperature circuit is protected by HRC fuses capable of functioning to specification at  $-46^{\circ}\text{C}$ . This feeds the main heating system and a single incandescent light fitting (which doubles as the map light). The main equipment circuit is designed to operate from  $0^{\circ}\text{C}$  (although operation as low as  $-20^{\circ}\text{C}$  is achievable) and is fed via a current operated earth leakage circuit breaker (RCD) which also provides the isolating switch function. All computer equipment circuits are distributed via an online double conversion UPS which provides 10 minutes hold up time and transient protection for the computer systems. All power distribution is via miniature circuit breakers.

## SIGNAL INPUT

Signal data input/output is via a dedicated signal panel. Commercial telephone lines are connected via BT Krone type terminals and the MoD telephone network via DON 10 terminals. Access ways are also available for SAT Comms and other broadband systems through fibre optic cable windows.

## CES

The container system is provided with a number of CES items to support its operation, listed as follows:

J Bolts - 12 off; External interface connectors - to interface with commercial, general issue or FEPDS generators or local mains; Cam poles; Access steps; Safety harness & lanyard; Roof access platform; Padlocks and keys; Tee keys; Earth stakes & cables.

## G3 Systems Limited

Heydon Lodge, Newmarket Road

Nr Royston, Hertfordshire, SG8 7PN

Tel +44 (0)1763 268200 Fax +44 (0)1763 268210

E mail sales@g3-systems.co.uk www.g3-systems.co.uk

© 2006 G3 Systems Ltd