Makkeen MicroDC

ATC ADVANCED TECHNOLOGY CONSULTANCY LLC

- Makkeen MicroDC is an all-in-one **Server Room-in-a-Box**, featuring complete mission critical server room infrastructure.

- The unit's modest cost is offset by its reliable performance, specifications and operational savings of 30%

- Its cooling function is supported by ATS and UPS, ensuring the unit will continue to be chilled in the event of a power outage. In addition, the unit is IP55 protected, therefore dust and water jet proof. It features secure biometric thumb scan mechanism security access, and an active fire suppression system with optical and smoke sensors. In addition, it is equipped with environmental monitoring capability featuring an SMS alert system.

Canadian Assembled & Tested

Patch Panel

Fire Suppression

IP55 Compliant, Protection from dust and water jets

Makkeen

Cooling Units backed by ATS and UPS with noise levels of 65 dBA, equivalent to a quiet office

Security

KVM Switch with monitor, keyboard, and mouse

Monitoring system provides details of the overall system efficiency and system consumption

Power Distribution module Breakers to provide Protection from overcurrent, overload or short circuit

Power Distribution Unit [PDU]

Easily Transportable

UPS backing up the critical loads & Cooling Units

SPEED
Deployment speed increases up to **83%**

SAVINGS
Deployment cost savings of up to **43%**
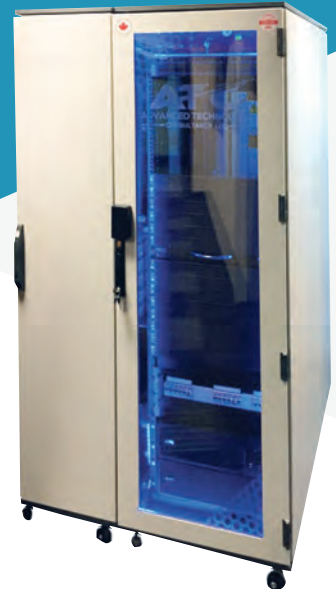
EFFICIENCY
Operational cost reduction of **30%**

PHYSICAL SECURITY

MADE IN CANADA · FABRIQUE AU CANADA

CSA certified By:

CINNOS MISSION CRITICAL INCORPORATED

Makkeen Micro DC I	37 U	200 cm	4 KW
Makkeen Micro DC II	42 U	220 cm	5 KW

Customize your own solution

- Self-contained IP55 isolated cabinet.

- UPS for devices and cooling unit, with server auto shutdown capability and battery backup time of 5 minutes.

- Uptime institute Tier I or Tier II standard breaker system.

- DX ducted precision cooling system with in room circulation without outside split unit, with ATS and UPS power to ensure sufficient cooling to shutdown.

- Biometric thumb scan mechanism security access.

- Active fire suppression clean Agent-Novec 1230 system with optical and smoke sensors.

- KVM switch & TFT Monitor with keyboard and mouse.

- Remote environmental monitoring capability with SMS alert system.

IT Load Monitoring
Time Vs. Temperature Monitoring
Time Vs. Humidity Monitoring

Full Environment Monitory System

First Digit: Solid Particle Protection	
Level Sized	Effective Against
1	Large surfaces
2	Fingers or similar objects
3	Tools, thick wires, etc.
4	Most wires, slender screws, large ants etc.
5	Dust protected
6	Dust tight

Second Digit: Liquid Ingress Protection	
Level Sized	Effective Against
1	Dripping water
2	Dripping water when tilted at 15°
3	Spraying water
4	Splashing of water
5	Water jets
6	Powerful water jets
7	Immersion, up to 1 m depth
8	Immersion, 1 m or more depth
9	Powerful high temperature water jets

	UP TIME		REDUNDANCY	SOURCE	POWER SOURCE	CONCURRENT MAINTENANCE	FAULT TOLERANCE
Tier 4 — 0.4 Hours	99.995%		Power, Cooling, Hardware, and Fault Tolerance	System + System	2 + 2 Genset	Yes	Yes
Tier 3 — 1.6 Hours	99.982%		Power, Cooling & Hardware	System	1+ Genset	Yes	No
Tier 2 — 22 Hours	99.749%		Power & Cooling	System	1	No	No
Tier 1 — 28.8 Hours	99.671%	N/A		System	1	No	No

DOWN TIME