BASELAYER **CORE**™

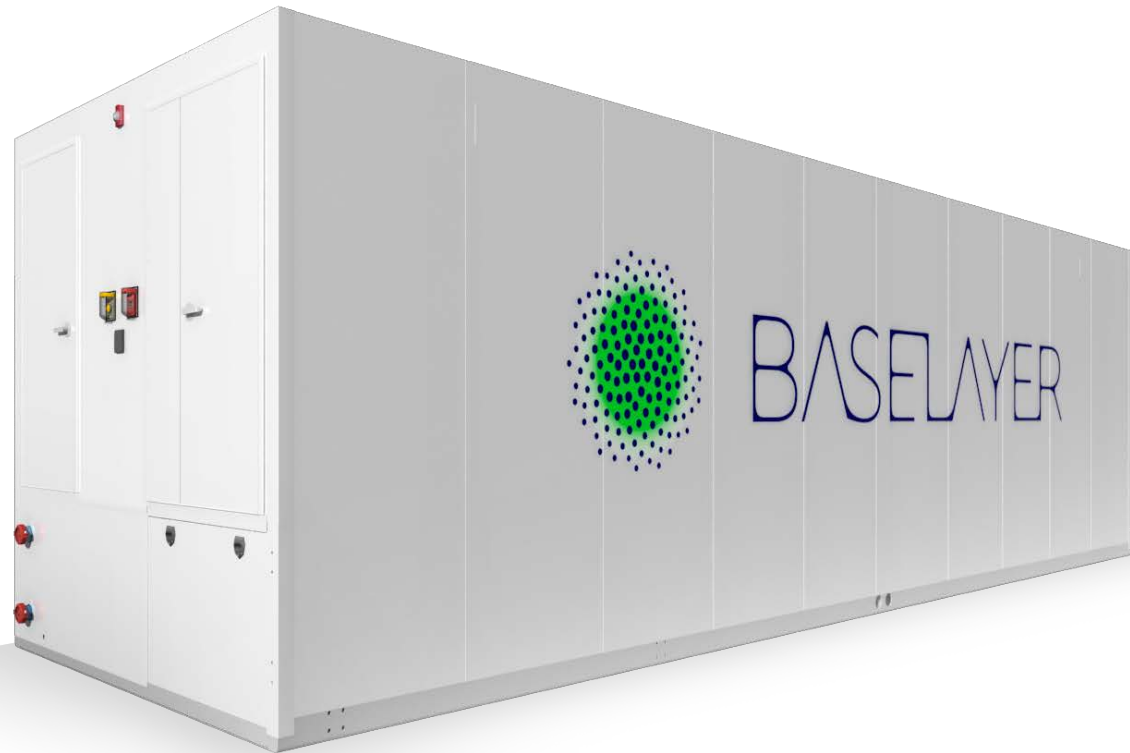# BASELAYER **CORE**™

C10 Data Module

The CORE C10 Data Module is a state-of-the-art, compartmentalized, raised floor data center space that delivers standardized increments of predictable capacity.
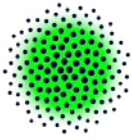
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BASELAYER CORE C10 Data Module

HIGHLIGHTS

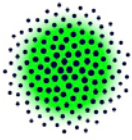Delivers up to 400kW of Critical IT power and cooling for up to eighteen (18) 50U racks @N

Technology-agnostic design with 462 square feet (42.9 m²) of available IT space

Ships configuration-tested from the factory with RunSmart™ Embedded providing access to key module sensors and controls via a web-based server

Power and cooling redundancy thresholds are configurable through BASELAYER RunSmart™ OS.
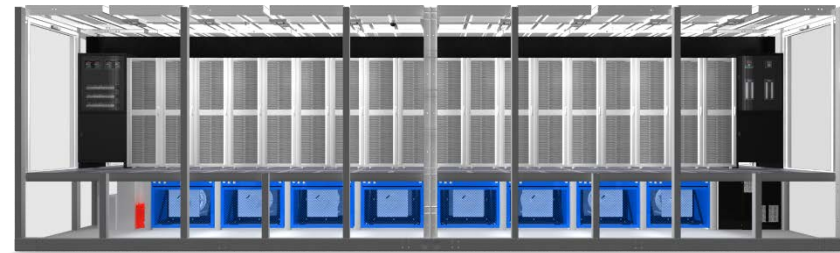
SPECIFICATIONS

Exterior Dimensions US (Metric)	Length Width Height	42' 8" (13.00m) 11' 8" (3.55m) 13' 5" (4.09m)
Interior Tech Space Dimensions US (Metric)	Length Width Height	42' 0" (12.8m) 11' 0" (3.35m) 8' 5 1/2" (2.58m)
Estimated Module Shipping Weight US (Metric)	48,000 - 52,000 Lbs (21,772 - 23,587 kg) (without IT gear)	
Number of Standard Cabinets	(18) 24" (609.6mm) Cabinets (Up to 50U) (14) 30" (762mm) Cabinets (Up to 50U)	
Input Power Connections Voltage/Frequency Amperage	4 (2 @ each PDU) 480 V, 3 Phase, 4 Wire, 60Hz 400 V, 3 Phase, 3 Wire, 50Hz 400A @ each incoming feeder	
Power Distribution Unit	(2) 200 kVA PDUs per module	
Chilled Water Header	Bi-Directional, Supply/Return; Connections At Both Ends	
Air Handling Units	Up to 8 Modular 56kW AHU	
Leak Detection	Spot Leak Detection (9 total)	

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*Assumed Operating Conditions: Unity Power Factor, 95°F Return Air Temp, 45°F CW Temp, 22 GPM, 6500 CFM, 8 Max # of AHUs, Net Capacity per AHU: 56kW

UNIT PERFORMANCE

Unit PUE Range	As low as 1.15 (Dependent upon Environmental and Operational Conditions)

Maximum Module Capacity*	Maximum Available kW
@ N	400kW MAX CAPACITY
@ N+1	385kW MAX CAPACITY
@ 2N	200kW MAX CAPACITY

Maximum Module Density/Rack*

@ N	22.2 kW/rack: (18) 24" racks	28.6 kW/rack: (14) 30" racks
@ N+1	21.2 kW/rack: (18) 24" racks	27.5 kW/rack: (14) 30" racks
@ 2N	11.1 kW/rack: (18) 24" racks	14.3 kW/rack: (14) 30" racks

Access Control (Options Available)

Compartmentalized Architecture, Role-based Access Control
Layers of Physical & Logical Protection, Separate Tech & Support Space Access

Fire System

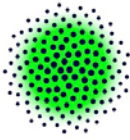| Dedicated Fire System	Externally Accessible Fire Control Panel, Intelligent Photoelectric Smoke Sensor Pre-Discharge Alarm & Strobe Light
Fire Rating	3-Hour Doors

BASELAYER RunSmart™ OS (Optional)

Intelligent Control	Customizable: Role-based Visibility, Warnings, Alarms, Thresholds & Control Set Points
Available (UI) User Interfaces	Visualizer – Desktop and Mobile, Business Reporting, API Provide Real-time Visibility, Control, Optimization, and Automation

Outside Environmental Operating Conditions

Operating Temperatures	32°F (0°C) to 105°F (40.6°C)
Operating Humidity	0 to 90% (RH)

Listings, Regulatory Compliance, Certifications

UL/CE	UL 2755 or CE Compliant (As Regionally Appropriate, Certification Options Available)
NFPA	Compliant

Accessories/Options

Configurable	AHU Field Upgradable SKU's available (standard with 4, upgradable to 8)
Warranty	Standard 1 year limited warranty; upgradable to 3 or 5 year limited warranty

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BASELAYER CORE C10 Data Module

SPECIFICATIONS

Exterior Dimensions US (Metric)	Length	42' 8" (13.00m)
	Width	11' 8" (3.55m)
	Height	13' 5" (4.09m)
Estimated Shipping Weight	48,000 - 52,000 Lbs (21,772 - 23,587 kg) (Without IT Gear)	
Tech Space Access	Cold Aisle Access: 2 x Steel Door H 8'1" (2.45m) x W 3' (.91m) With W1' (.30m) Leaf	
	Hot Aisle Access: 2 x Steel Doors H 8'1" (2.45m) x W 3' (.91m)	
Support Space Access	H 3'2" (.92m) x W 3'8" (1.24m) Wide Lockable Insulated Access Panel	
Frame	18,000 lbs (9,979 kg) of Steel Tube Framing	
Walls	2" x 4" (50.8mm x 101.6mm) Steel Tube Frame, 4" x 4" (101.6mm x 101.6mm) Steel Tube Columns	
	Exterior: White Painted AL Skin; Expanded Polystyrene (EPS) 4" R-14 (101.6mm) Thermal Insulation	
	Interior: White Painted Aluminum Skin	
Roof	10GA (.1345) Steel Exterior Skin; Expanded Polystyrene (EPS) 4" (101.6mm) R-14 Thermal Insulation	
	White Painted Aluminum Interior Skin, 600 lbs/ft2 (25.28 kg/m) Max Roof Loading	
Tech Space Cold Aisle	4' (1.22m)	
Tech Space Hot Aisle	3'6" (1.07m)	
Tech Floor Space	462ft² (42.9m²)	
Tech Space Interior Dimensions	Length	42' 0" (12.8m)
	Width	11' 0" (3.35m)
	Height	8' 5 1/2" (2.58m)
# of Standard Cabinets	(18) 24" (609.6mm) Cabinets (Up to 50U), (14) 30" (762mm) Cabinets (Up to 50U)	
Floor Loading	(18) Cabinets Up To 3,500 lbs (1,588 kg) each	
	(14) Cabinets Up To 5,000 lbs (2,268 kg) each	

Voltage/Frequency	480V, 3 Phase, 4 Wire, 60Hz
	400V, 3 Phase, 3 Wire, 50Hz
Amperage	400A @ each incoming feeder
Incoming Power Feeds	Configurable Up To 4 x 400V, 400A, 60 or 50Hz, 3 phase + GND inputs (2 - 400A feeds per PDU)
Power Input Connections	2 x Input Power Terminal Enclosures
Power Distribution Unit	(2) 200 kVA Power Distribution Units (PDU) per module
Inputs	Rack Power Input V: 480V, 60Hz: 208/120V @ each incoming feeder
	400V, 50Hz: 400/230V @ each incoming feeder
	Manual closed transfer between sources with sync check and keyed interlock system
	Power Metering, Input, Support, and Tech loads
	Branch Circuit Monitoring System on Tech panel boards
Critical Load Power Output	4 x 42 Pole Breaker Panels
Grounding Systems	All equipment and metallic surfaces bonded to ground
Convenience Outlets	4 x Outlets in the Tech Space 230 V (Max Current 16 A) - Located in PDU
	3 x Outlets (GFI) in the Support Space 230 V (Max Current 16 A)
Lighting	Ceiling Mounted LED lighting components meet TIA-942A Standard

Chilled Water Header	Bi-Directional, Supply/Return Line Connections at both ends
	Inlet / Outlet differential pressures measurement on both ends
	Max flow rate: 320 GPM (40 GPM/AHU)
Chiller Water Supply/Return Connection Type	4" (101.6mm) Flanged Pipe Coupling (2 x at each end of the module extending through the wall)

Air Handling Units Features:	Up to 8 x Modular 56 kW Air Handling Units (AHU)
	Flow monitoring
	Variable fan speed control and virtual speed monitoring
	Actual air flow monitoring
	Inlet and outlet air temperature sensor
	Inlet and outlet water temperature sensor
Leak Detection	Spot Leak Detection: 1 Per AHU and Bay 10 (9 Total)

Humidifier	Electrode humidifier

UNIT PERFORMANCE

Unit PUE Range	As low as 1.15 (Dependent upon Environmental and Operational Conditions)

Maximum Module Capacity*		**Maximum Available kW**
@ N		400kW MAX CAPACITY
@ N+1		385kW MAX CAPACITY
@ 2N		200kW MAX CAPACITY

Maximum Module Density/Rack*		
@ N	22.2 kW/rack: (18) 24" racks	28.6 kW/rack: (14) 30" racks
@ N+1	21.4 kW/rack: (18) 24" racks	27.5 kW/rack: (14) 30" racks
@ 2N	11.1 kW/rack: (18) 24" racks	14.3 kW/rack: (14) 30" racks

Assumed Operating Conditions	Unity Power Factor	95°F Return Air Temp
	45°F CW Temp	22 GPM
	6500 CFM	8 Max # of AHUS
	Net Capacity per AHU: 56kW	

Access Control (Options Available)	Compartmentalized Architecture
	Role-based Access Control
	Layers of Physical & Logical Protection
	Separate Tech & Support Space Access
	Customer Options: Video Monitoring, Access Control, Sensors, Locks

Dedicated Fire System	Externally Accessible Fire Control Panel
	Intelligent Photoelectric Smoke Sensor
	(2) 100 lbs (45.36 kg) ECARO-25 Clean Agent Gas Storage Tanks
	(4) 360 Degree Fire Suppression Nozzles
	Pre-Discharge Alarm & Strobe Light
	Abort Hold Buttons & Keyed Bottle Disconnects both Ends of Module
Fire Rating	3-Hour Doors

Intelligent Control Available (UI) User Interfaces (Optional)	Customizable: Role-based Visibility, Warnings, Alarms, Thresholds & Control Set Points
	Visualizer – Desktop and Mobile, Business Reporting, API
	Provide Real-time Visibility, Control, Optimization, and Automation
	BASELAYER RunSmart™ OS Integrates Both Modular and Legacy Data Center Infrastructure with IT Equipment, Applications, and Users

Operating Temperatures	32°F (0°C) to 105°F (40.6°C)
Operating Humidity	0 to 90% (RH)
Operating Altitude	Up to 10,000 ft (3,048 m)

UL/CE	UL 2755 or CE Compliant (As Regionally Appropriate, Certification Options Available)
Uptime Institute	Product based on Tier III Design parameters
National Fire Protection Agency	Compliant

Configurable Warranty	AHU Field Upgradable SKU's available (standard with 4, upgradable to 8)
	Standard 1 year limited warranty; upgradable to 3 or 5 year limited warranty