DEC25/NG "Next Generation" Digital Equipment Cabinet

Table A: Main Cabinet Equipment Chamber Dimensions

Catalog Number	Height*	Width	Depth	Rack Spaces	Rack Width	Weight**
DEC25-8/NG	21.0-in. 533-mm	25-in. 635-mm	25-in. 635-mm	8 x 1.75-in.	23.0-in.	82 lb. 36.4 kg
DEC25-17/NG	36.75-in 934-mm	25.0-in. 635-mm	25.0-in. 635-mm	17 X 1.75-in.	23.0-in.	110 lb. 48.8 kg
DEC25-27/NG	54.25-in in. 1378-mm	25.0-in. 635-mm	25.0-in. 635-mm	27 x 1.75-in.	23.0-in.	145 lb. 64.4 kg

* **To obtain the overall height of the cabinet, all three of these component heights must be added together.**

** **To obtain the overall weight of the cabinet, all three of these component weights must be added together.**

Table B: Cabinet Pad-Mounting Dimensions

Cabinet Pad-Mounting Options	Height*	Weight**
List 07 Pad-Mount Baseframe	11.0-in. 533-mm	32 lb. 14.2 kg
List 08 Pad-Mount Feet	6.0-in. 152-mm	10 lb. 4.4 kg

* **To obtain the overall height of the cabinet, both of these component heights must be added together.**

** **To obtain the overall weight of the cabinet, both of these component weights must be added together.**

Table C: Cabinet Cooling Options

Cooling Options	Height*	Weight**
Fan	5.75-in.	15 lb. /6.7 kg
Heat Exchanger	8.25-in.	30 lb. /13.3 kg
HVAC: 1500 BTU/Hr	14.25-in.	110 lb. /48.9 kg
HVAC: 3500 BTU/Hr	14.25-in.	110 lb. /48.9 kg
HVAC: 5500 BTU/Hr	18.0-in.	130 lb. /57.7 kg

* **To obtain the overall height of the cabinet, all of these component heights must be added together.**

** **To obtain the overall weight of the cabinet, all of these component weights must be added together.**

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Specifications

Finish

	Platinum gray

Access

	Front door
	Rear door
	Removable battery chamber panels

Cooling

Options	Convection cooling kit
	330 cfm fan kit (-48, +24 vdc or 120 vac)
	Heat exchanger kit (600 watt or 1200 watt)
	HVAC kit (1500, 3500 or 5000 BTU)

Electrical

Standard	4-in. x 4-in junction box with surge protector and GFI receptacle
Optional	4 or 8 position 120/240 vac, 60 Hz, load center

Alarms

	High temperature = 49˚C
	Low temperature = 5˚C
	Front Door Intrusion
	Rear Door Intrusion

Mounting

	Pad-mount (optional kits required)
	Pole-mount
	Wall-mount

Rack Space

	Single, center mount 23-in. wide rack system (19-in. optional)
	1.75-in. EIA spacing standard (1.00-in. spacing optional)
	untapped holes for 12-24 hardware
	DEC25-8 = 14.00-in. of rack space (8 RU)
	DEC25-17 = 29.75-in. of rack space (17 RU)
	DEC25-27 = 47.25-in. of rack space (27 RU)

Approvals

	CSA
	UL
	GR-487 (as applicable)

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Ordering Information

Model Number	Part Number	List Number	Description
DEC25-8/NG DEC25-17/NG DEC25/27/NG	F787652 F787653 F787654	List 00	Common equipment wiring and assembly for a basic DEC25 cabinet. Including racks, wind latches, ground bar, single point cabinet ground lug, frame ground system, weather gasketing, insulation, document holder, lifting eyelets, solar shield
Next Generation DEC25 cabinet assemblies			Mounting brackets, alarm termination strip, grounded cable entry plate, (1) cable nozzle, assembly labour
		List 05	115 vac, 60 Hz Cabinet AC Kit; wiring and assembly of a 4-in. x 4-in. splice box, (1) 15 amp, 115 vac duplex receptacle and (1) 15 amp 115 vac GFI receptacle, (1) surge arrestor, sealed flexible AC conduit.
		List 06	220 vac, 50 hz Cabinet AC Kit; wiring and assembly of a 4-in. x 4-in. splice box, (1) 3 position AC terminal block, (1) Joslyn surge arrestor, sealed flexible AC conduit.
		List 07	11.00-in. Welded Pad-Mounting Base Assembly
		List 08	6.00-in. Pad-Mounting Feet Assembly
		List 09	Side Mounted, Pole-Mounting Kit
		List 12	Fixed Battery Tray for use with List 07 Base Frame
		List 20	DEC25 Alarm Kit e/w (2) intrusion alarms, (1) high temp alarm, (1) low temp alarm, (1) 8 pair screw-down termination strip
		List 21	Cabinet Sealing Kit
		List 22	Cabinet Filter Kit
		List 29	Insulation Kit for the DEC25-17/NG
		List 41	Cabinet Entry and Installation Tool Kit
		List 45	+24 vdc fan kit for use in List 00
		List 46	-48 vdc fan kit for use in List 00
		List 47	120 vac fan kit for use in List 00
		List 50	8 amp, -48 vdc Modular Rectifier System
		List 51	2 amp, -48 vdc Rectifier Module for list 50
		List 52	Air Circulation Fan Rack System for list 50
		List 56	Battery Temperature Compensation Unit for list 50
		List 60	-48 vdc, 600 watt Heat Exchanger
		List 70	1500 BTU HVAC Kit
		List 71	3500 BTU HVAC Kit
		List 72	5000 BTU HVAC Kit
		List 75	Pole-Mount Chair Assembly Kit
		List 80	Battery Tray Heater Kit for list 12
		List 82	Slide Out Battery Tray for use with List 07 Base Frame
		List 84	Battery Tray Heater Kit for list 82
		List 86	4 Position, 30 amp, 120/240 vac Load Center
		List 95	110 pair Protection Panel Assembly
		List 100	18 amp, -48 vdc Modular Rectifier System
		List 105	60 amp, -48 vdc Modular Rectifier System
		List 120	8 Position, 60 amp, 120/240 vac Load Center

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- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- **Outside Plant**
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

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OSPDS-127100 / 1005

MESA® 4 NxT
Modular Electronic Sealed Architecture

Key Features

- **Sealed design** — protects equipment from water and dust, while maintaining a cool operating environment

- **Flexible design** — cabinet modules can be configured to accommodate most telephone, CATV, and wireless applications

- **Powder paint process** — provides a harder finish while eliminating the release of harmful VOCs into the environment

- **Separate battery compartment** — provides additional space for revenue-producing equipment and separates batteries from heat generating electronics

- **Compartmentalized design** — for craft separation and configuration flexibility

- **Low maintenance** — cabinet does not utilize any fans or filters that require routine maintenance

- **Innovative cooling system** — keeps electronics from exceeding their optimal temperatures

- **Meets all industry standard requirements** — to ensure documented performance

- **Telcordia GR-487** — CORE Issue 2 compliant

Description

The MESA® 4 closure is the latest solution to today's outside plant demands. Due to the sophisticated nature of electronic systems being deployed in today's outside environment, efficient thermal management is increasingly critical to their operation. Emerson has created an innovative heat exchanger cooling system, which keeps electronics from exceeding their optimal temperatures, yet never introduces outside air and pollutants into the equipment chamber.

In addition, MESA® is designed to withstand the most severe environmental conditions, providing maximum protection for your equipment investment. MESA® is thoroughly tested against dust and water intrusion and exceeds even the most stringent industry standards.

MESA® is also extremely flexible. A modular approach is taken wherever possible so the cabinet can be quickly configured to meet your exact requirements. Optional "modules" include a battery drawer, commercial power panel, fiber splicing system, and overvoltage protection panels.

Application

The MESA® 4 Cabinet can economically house a variety of next generation electronic equipment including Digital Loop Carriers (DLCs), fiber optic transport systems, and radio equipment for wireless applications.
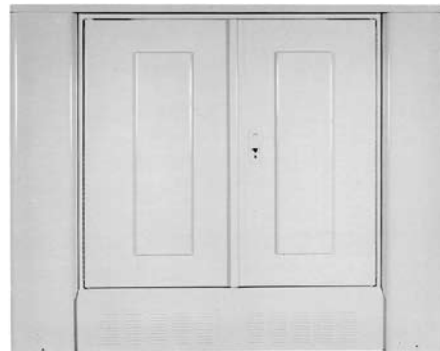
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MESA® 4 NxT Modular Electronic Sealed Architecture

Dimensions

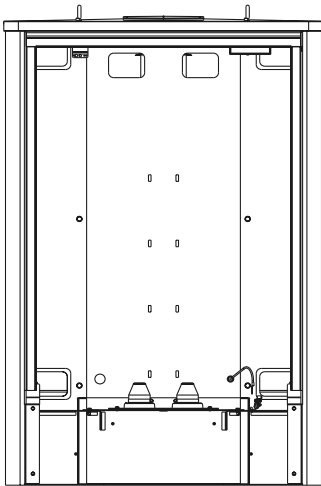| Catalog Number	H	W	D
MESA® 4 (overall exterior dimensions)	75-in.	93-in.	46-in.
Chamber Area Dimensions			
Equipment Chamber (interior dimensions)	52.5-in.	55.5-in.	42-in.
End Chamber (splice & power chamber)	52.5-in.	42-in.	13.7-in.
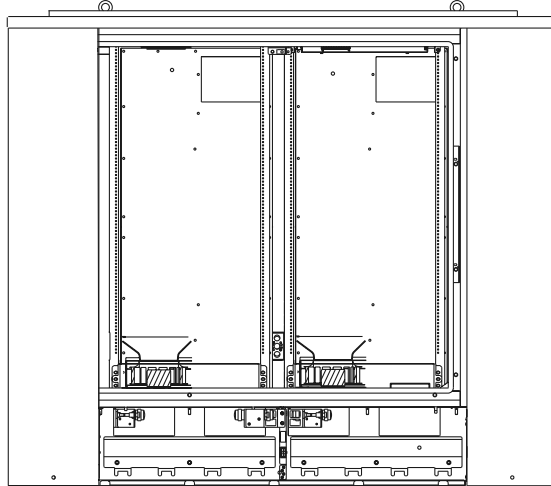
Splice Chamber   MESA® 4 Front View   Power Chamber

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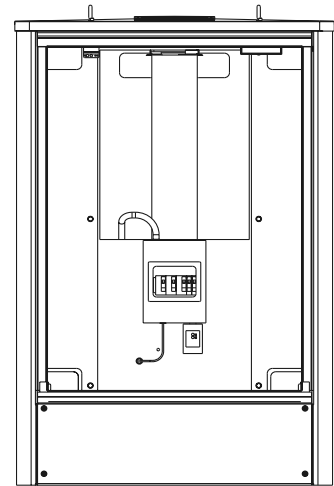
Specifications

Enclosure Mounting

Enclosure	Pad-mounted

Equipment Mounting

Total mounting space	216-inches of rack space (two 49.5-inch and two 48-inch EIA rack units in the equipment chamber and one 21-inch mini rack in the power chamber)
Hole spacing on racks	1.0-inch spacing (EIA 1.75-in spacing available) untapped holes for 12-24 thread forming hardware
Rack widths	23-inch EIA standard
Center mounting	Accepts standard 12-inch deep, center mount equipment (5-inch front, 7-inch rear)

Environmental Protection

Finish	Off-white, polyester powder coat

Thermal Protection

Heat exchanger	Two, 23-inch Heat Exchanger
Temperature fans turn on at:	90° F
High temperature alarm will sound at:	150° F
Heat dissipation (based upon impedance of installed equipment)	3200/ 3600/ 4600 Watt options

Electrical

AC System	8-position power distribution panel with AC distribution to power shelf
Convenience Outlets (GFCI protected)	Two in the equipment chamber (one per side) One each in the power chamber and splice chamber
Battery heater pad kit (optional)	Thermostat control "On" at 40° F, "Off" at 60° F
Compatible batteries & amp-hour reserve	Quantity (6) strings of 4-12 VDC 155 A-Hr front post batteries (48VDC string) FIAMM®, GNB, C & D, etc.

Security

Padlockable	216-type tool
Intrusion alarm	Intrusion alarm with local indication and remote location options

Bonding and Grounding

	Two 10-position, dual holed L49, copper buss, 3/16-in. thick, 1/4-20 hardware. One each in power chamber and splice chamber

Cable Entrance

	Four, 4-inch cable entrance ports in splice chamber Two, 4-inch cable entrance ports in power chamber (cable dressing bracket provided with protection panel kit)

Dimensions and Weights

Overall Exterior (H x W x D)	75" x 93" x 46.0"
Equipment Chamber (H x W x D)	52.5" x 55.5" x 42.0"
End Chambers (H x W x D)	52.5" x 42.0" x 13.7"
Weight	1485 lbs. (unequipped)

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DEC25/NG
"Next Generation" Digital
Equipment Cabinet

Key Features

• **Sealed or Ventilated Design —**
provides superior protection of
equipment, cables, and splices

• **Small, lightweight cabinets —**
meet or exceed new "Urban
Design Guideline" requirements

• **Multiple Cooling Options —**
cost effective solutions for any
application

• **Welded Aluminum
Construction —** Dependable,
durable, offering a long, corrosion-
resistant, problem-free service life

• **Flexible Design —**
Applications for wireless, wireline
and CATV

• **Modular Design —**
provides for craft separation and
configuration flexibility

Description

The DEC25 "Next Generation" family of enclosures have been specifically designed with
today's distributed network architecture in mind. New "urban design guidelines" now require
network providers to make their POPs smaller, quieter and more cosmetically pleasing, while
still maintaining the same levels of network reliability and service, as in the past. The DEC25
family offers the user the unique ability to customise your network deployment to meet
these stringent new requirements. The different sizes, compact profiles, low operating noise
levels, and clean lines make the deployment of the DEC25 family much easier than traditional
larger enclosures.

Three sizes of the DEC25 are available. All enclosures are constructed of welded heavy gauge
aluminium and are designed to withstand the most severe environmental conditions. They
each will economically house a wide variety of sensitive electronic equipment in any outdoor
environment.

The DEC25-8 is the smallest unit in the family measuring only 27" tall. The enclosure has (8)
EIA 1.75" equipment rack space available for equipment mounting. The DEC25-8 is ideal for
small remote sites where up to 150 individual lines may be required. The DEC25-17 is the
mid-size unit and measures 42" tall. This enclosure has (17) EIA 1.75" equipment rack space
available for equipment mounting. The DEC25-17 is ideal for remote sites where the line
requirements could be as high as 384 individual ports. The largest unit in the family is the
DEC25-27, which measures 60" tall. This enclosure has (27) EIA 1.75" equipment rack space
available for equipment mounting. Again the DEC25-27 fits most applications needing more
than 384 lines. Any of these cabinets can be pole or pad mounted using special mounting
kits.

Depending on regulatory requirements, the external operating conditions and the equip-
ment operating parameters, any of the DEC25 enclosures can be equipped with one of four
optional cooling options. These include convection cooling, forced air cooling, heat exchang-
er cooling and HVAC cooling.

Application

The DEC25-8, DEC25-17 or DEC25-27 cabinets are a family of durable yet economical priced
enclosures. They are specifically designed to house a wide variety of sensitive electronic
equipment in any outdoor application. The cabinets are designed with optional cooling
modules that allow equipment to be housed in a sealed, dust free environment. Or for appli-
cations where less stringent environmental requirements are needed, any of the cabinets can
be equipped with less costly fans and baffles for cooling the cabinet. Our simple yet innova-
tive cooling designs have been tested and verified to the highest industry standards.

Specific applications for the DEC25 family include: DSLAM adjunct sites, digital loop carrier
systems, microwave sites, auxiliary battery cabinets, fibre optic hub sites and radio equip-
ment cabinets for wireless applications.

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