SPEC SHEET · MODULAR DATA CENTERS · PHASED CAMPUS

Type XL

Phased AI campus · 5 to 50 MW · Pilot to full in 3 to 5 commissioning events

BUILDING BLOCK	PILOT SITE-READY	FULL CAMPUS	CAPEX MODEL
MDC-500 / DLC	6 to 8 months	12 to 24 months	Aligned to demand

OVERVIEW

A phased campus, not a single megaproject.

Pay for capacity when the workload arrives.

Type XL is the campus-scale deployment pattern built from the MDC-500 platform. Pilot at 2 to 5 MW, then phase up to 50 MW in three to five commissioning events. Each phase is a productized cluster — same factory-tested module, same weld-traceability standard, same UPS topology — connected to a single shared substation, transformer bank, and SCADA spine sized for the full campus from day one.

The economic case: GPU generations change every 18 to 24 months. Stick-built campuses commit to a single hardware generation across an 18-to-24-month build, then run that hardware for 5+ years. Type XL phases capacity in alongside demand — Phase 1 runs current-generation hardware; Phase 3 specs the next generation. Deploy capacity only when tenants or workloads are confirmed.

Phasing model

Three to five commissioning events from pilot to full campus. Substation and SCADA are sized for full campus capacity in Phase 1; module and cluster capacity phase in alongside demand.

PHASE	IT CAPACITY	SCOPE	MONTHS FROM PO
Pilot	2 to 5 MW	Single MDC-500 cluster + substation + SCADA spine sized for full campus	6 to 8
Phase 1	+5 to 10 MW	Second cluster bank; connected to existing substation. Current-generation hardware.	10 to 14

PHASE	IT CAPACITY	SCOPE	MONTHS FROM PO
Phase 2	+10 to 15 MW	Cluster expansion; optional shift to MDC-500 DLC for higher density	14 to 18
Phase 3	+15 to 20 MW	Next-generation GPU hardware; DLC-dominant configurations	18 to 24
Full	Up to 50 MW	All clusters online; substation at full design capacity; spare cluster slots reserved	24+

Phasing is illustrative; configurations sized to your tenant pipeline and utility-interconnect timeline. Substation and MV scope are designed for full campus on day one to avoid re-engineering during expansion.

Site architecture

Type XL campuses share a single utility-grade interconnect, MV substation, and SCADA spine. Modules and clusters are the variable; site infrastructure is fixed at full-campus capacity from Phase 1.

UTILITY INTERCONNECT

Voltage class	35 kV / 69 kV / 115 kV (utility-driven)
Substation	Outdoor or modular indoor; MV switchgear IEC 62271
Transformer	Liquid-filled; sized for full-campus N+1
Backup	Cummins gensets to 3 MW; paralleled at full-campus scale
Reactive comp	STATCOM or capacitor bank — utility-driven

SITE SPINE

MV distribution	Schneider Prisma Plus / Okken to module loads
LV distribution	Per-cluster 6300A LV switchgear
UPS	Vertiv Liebert APM2 per-cluster; centralized variant available
SCADA	Single integrated SCADA across all phases
Fire / life safety	NFPA 75 / 110 / 70; per-module gas suppression

Cluster mix and density

Type XL is configuration-flexible: phases can deploy MDC-500 air, MDC-500 DLC liquid, or any mix. Density and cooling architecture are per-cluster choices, not campus-level commitments.

MDC-500 (AIR)

50 kW/rack air-cooled

AI inference and current-density training. ASHRAE A4. Lowest-cost per-MW configuration; suitable for the pilot and early phases.

MDC-500 DLC (LIQUID)

150 kW/rack DLC

Blackwell-class training. ASHRAE W4. Vertiv CDU pair, water-glycol coolant. Suitable for DS-XL training tenants from Phase 2 onward.

MIXED DEPLOYMENT

Air + DLC clusters

Most common Type XL configuration. Air clusters for inference and legacy training; DLC clusters for current-generation training. Same substation, same UPS topology, same SCADA.

CapEx model

Type XL aligns capital deployment with revenue. Each phase commits capital only when the prior phase is contracted, leased, or operating at target utilization. Substation and SCADA carry the largest day-one fixed cost; module clusters phase in against confirmed demand.

Day-one fixed cost (Pilot)	Substation, transformer, MV switchgear, SCADA spine, first cluster
Phase 1 trigger	Pilot at target utilization or first tenant signed
Phase 2/3 trigger	Prior-phase utilization or contracted demand
GPU-generation flexibility	Phase 3 typically deploys next-generation hardware (18–24 mo cadence)
Reserved expansion	Up to 2 unbuilt cluster pads + spare conduit / fiber routing
Decommissioning	Per-cluster modules redeployable to other sites under SAT package

Compliance and standards

ELECTRICAL

LV switchgear	IEC 61439 TTA · UL 891 parallel
MV switchgear	IEC 62271 · IEEE C37 parallel
Grounding	IEEE 142 · IEC 60364
Arc flash	NFPA 70E · IEEE 1584

MECHANICAL, STRUCTURAL, FIRE

Container	ISO 668 · ISO 1496
Seismic	ASCE 7 site-specific class
Wind / snow	Per local building code
Fire	NFPA 75 · NFPA 110 · NFPA 70

Lead time and delivery

Pilot (2–5 MW + substation + SCADA)	6 to 8 months from PO
Subsequent phases	10 to 14 weeks each from phase-trigger PO
Full 50 MW campus	Typically 24 to 36 months across all phases
Comparable stick-built 50 MW campus	36 to 60 months single-build
Ships from	Pascagoula, MS (US final-mile assembly path available 2026.5)
FAT	Each cluster factory-tested at full load before shipment
SAT	Per-phase commissioning event with documented SAT package

PHASE YOUR CAMPUS

teraplex.us/schedule-se-call

Multi-MW deployments, integrated power+compute scopes, federal/SLED programs. Schedule the engineering call to scope phasing and CapEx.

DISCUSS DEVELOPMENT

teraplex.us/development-services

Site selection, pre-development engineering, and development planning for AI-grade campus pipelines. US-resident development partnership.

Specifications subject to change. All claims are honest at time of publication; individual configurations may vary. Phasing and CapEx illustrative; actual schedules driven by tenant pipeline and utility-interconnect timelines. Equipment lead-times referenced are for typical Q2 2026 conditions and are tracked quarterly at teraplex.us/lead-time-tracker.