K&K Data Electrical Design

DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10

13 UPS paths · 16 generators · 90 racks · 30 CDUs

The K&K GB300-class reference design

Public technical drawing edition

6 publication pages + 102 drawing pages · 108 pages

Source design revision: 22 October 2026

Publication reference: https://www.kkdatasvc.com/lab/downloads/

Enquiries: inquiry@kkdatasvc.com

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Public Statement and Design Basis

K&K Data electrical design development · P3 / 2026-10

Publication scope

This public edition presents the electrical design development drawings for the K&K GB300-class reference design. It comprises six publication pages and 102 technical drawing pages, 108 pages in total. It is based on the design revision dated 22 October 2026. Relative to P2, sheets E-104, E-105, E-107, E-108, E-201, E-202, E-203, E-204, E-205 and E-7061 are updated. Technical revisions remain those stated in the drawing title blocks; P3 identifies the public publication issue.

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Electrical configuration and conditional capacity

The adopted design comprises 13 UPS paths, six in Zone 7 and seven in Zone 8; 90 IT rack positions with 180 power inputs; 16 generators arranged in four segments with three bus ties; and 30 CDUs with 60 input protection functions. Each UPS path has a 2 MW total-output study basis, including IT, CDU and other assigned output loads. These are design quantities. UPS path and protection-function counts do not determine physical UPS or CDU cabinet quantities. [S1/S4]

Utility service is 12.47 kV with a 15 MW facility input ceiling. The 7 MW and 8 MW layout feeders originate at the same substation and do not constitute independent utility 2N. The 7+8 MW layout and the 7.5+7.5 MW utility load-study reference remain separate cases; final limits follow the utility agreement. Independent UPS outputs are not paralleled. All CDUs are UPS supplied; external cooling pumps, fans and auxiliaries require defined supplies and ride-through duties. [S1/S4]

Rack loads of 136 kW and 155 kW are comparison points, not simultaneous contracted demand. For 90 racks and assumed UPS efficiency 0.97, IT-related UPS input is 12.619 MW and 14.381 MW respectively, rounded to 0.001 MW. With 15 generators available at assumed site net output 1 MW each, 2.381 MW and 0.619 MW respectively remain for CDU demand, cooling, auxiliaries, additional losses, permitted recharge and reserve. Unquantified demand is not zero; full contingency capacity is not established. [S2]

The base generation contingency is utility outage with any one generator unavailable. Loss of a four-generator segment is a separate condition. A D-segment bus fault with utility unavailable removes sustained generation input from both rack inputs R064-R084; supply cannot continue after battery autonomy. Cooling dependencies require separate verification. Island capacity depends on fault location, segment loading, bus-tie transfer, site net output and dynamic recovery. [S2]

This is a design development issue. The specific engineering inputs on the following page control equipment ratings, operating limits and implementation. [S1/S3/S5]

Engineering Conditions and Sources

Specific inputs governing ratings, operation and implementation

Condition	Required input and engineering effect
Actual demand	Actual simultaneous IT, CDU, primary cooling, network/building auxiliary and charging loads are required by UPS path, utility zone and generator segment. Package demand is counted once. These inputs control facility/generator capacity, UPS and feeder duties, battery duration and recovery margin. [S1-S3]
Generator performance	Site net kW/kVA, duty rating, environmental derating, parasitic-load boundary, step-load/transient behavior and reserve are required. The 1 MW net output per machine remains a study assumption; it controls the 15-machine contingency, island transfer and recovery. [S2/S3]
UPS, ATS and neutral	Assembly kW/kVA, efficiency, battery/bypass duty, charge inhibition, shared/switched neutral, bonding, isolation and interlocks require coordinated configuration. Opening phase bus ties does not isolate the shared neutral. Neutral maintenance requires independent isolation of all related sources under the adopted neutral scheme; UPS bypass/battery neutral behavior remains unconfirmed. No whole-UPS AC input limit is assumed; recharge uses only verified OEM charging functions. Charging control does not limit IT input. The 3200 A class shown for the ATS and LV interface breakers is an interface-study value; it does not establish a selected OEM rating or WCR/SCCR. Actual withstand duration and specified upstream protection must match node fault duty and clearing time. [S3]
CDU and cooling	Operating, standby and transferred kW/kVA/PF, start/overlap duration, nonselected-input demand, source selection/backfeed prevention, control/flow recovery and allowable interruption are required. Both inputs require full approved unit duty; standby demand does not set feeder rating. CDU electrical demand is not its thermal capacity. [S3/S4]
Fault duty and protection	PCC maximum/minimum fault data, X/R and grounding; generator, transformer and UPS contributions; curves, withstand and settings are required for node fault duties, interrupting ratings, selectivity, TCC and arc-flash analysis. Generator 17.1% subtransient reactance alone is not a complete fault model. [S1/S3]
Ratings and installation	Transformer OEM source documents differ at 2500/2600 kVA. The conditional capacity envelope uses 2500 kVA; final nameplate/drawing reconciliation does not freeze impedance, losses or terminals. Final routes, grouping, thermal conditions, cable/terminal limits, apertures, support reactions, soil/foundation and crane loads govern ampacity, voltage drop, landing feasibility and installation. [S4/S5]
Controls and verification	Pin-level I/O, permissives, trip priorities, fail states, synchronizing, neutral isolation and measurable FAT/SAT criteria are required for outage, transfer, bypass and recovery. These determine control wiring, settings and integrated acceptance, including cooling recovery. [S1/S3]
Drawing integration	Cross-page locators, revision references and discipline interfaces require reconciliation in the approved design package. Locator gaps are navigation and coordination conditions; they do not alone prove a broken circuit. Stated dimensions govern; reduced prints are not measurement sources. Color does not establish continuity, phase or source independence. [S1/S4]

Technical sources

S1: Drawings E-104 to E-108 and E-201 to E-205, adopted supply configuration and rack distribution. S2: E-203 to E-205, generation segments, conditional capacity and operating sequence in the design revision dated 22 October 2026. S3: Equipment input requirements and UPS/ATS/CDU control, neutral and protection interfaces identified on E-107, E-108, E-205 and E-7061 and their related equipment-path details.

S4: This edition's 102-sheet drawing index and technical drawings, based on the design revision dated 22 October 2026; source technical revisions remain identified on each sheet. S5: Transformer rating and physical-interface design basis, with related installation drawings E-311 to E-315. The calculations retain their stated assumptions; the listed outstanding inputs govern their affected decisions.

Drawing Index 1 of 3

P3 / 2026-10 · public sheet IDs and source technical revisions

Package pages 1-6 contain publication information. Drawing pages 1-102 follow on package pages 7-108.

Package	Drawing	Sheet	Subject
7	1	E-104	MV distribution - 7 MW zone
8	2	E-105	MV distribution - 8 MW zone
9	3	E-106	MV branch assembly and bonding
10	4	E-107	Primary and CDU supply - 7 MW zone
11	5	E-108	Primary and CDU supply - 8 MW zone
12	6	E-201	Rack distribution - 7 MW zone
13	7	E-202	Rack distribution - 8 MW zone
14	8	E-203	Generator segments and bus ties
15	9	E-204	Operating duty and conditional capacity
16	10	E-205	Generator operating sequence
17	11	E-302	Crane crossing coordination
18	12	E-303	MV trench construction coordination
19	13	E-306	Local earth electrodes and interfaces
20	14	E-307	Nonwelded grounding connections
21	15	E-309	Shallow foundation coordination
22	16	E-310	Bearing-soil protection and MV pre-installation
23	17	E-311	Transformer assembly and civil works
24	18	E-312	Transformer plan and front elevation
25	19	E-313	Side elevation and installation sequence
26	20	E-314	Two-tier LV cable cross-section
27	21	E-315	Straight tray and bottom-entry envelopes
28	22	E-7011	Normal source detail - path 7-01
29	23	E-7061	Generator plant neutral and PE arrangements
30	24	E-7041	Emergency source detail - path 7-01
31	25	E-7021	ATS detail - path 7-01
32	26	E-7031	Plant control detail - path 7-01
33	27	E-7051	UPS and bypass detail - path 7-01
34	28	E-7012	Normal source detail - path 7-02
35	29	E-7022	ATS detail - path 7-02
36	30	E-7032	Plant control detail - path 7-02
37	31	E-7042	Emergency source detail - path 7-02
38	32	E-7052	UPS and bypass detail - path 7-02
39	33	E-7013	Normal source detail - path 7-03
40	34	E-7023	ATS detail - path 7-03
41	35	E-7033	Plant control detail - path 7-03
42	36	E-7043	Emergency source detail - path 7-03
43	37	E-7053	UPS and bypass detail - path 7-03

Drawing Index 2 of 3

P3 / 2026-10 · public sheet IDs and source technical revisions

Package pages 1-6 contain publication information. Drawing pages 1-102 follow on package pages 7-108.

Package	Drawing	Sheet	Subject
44	38	E-7014	Normal source detail - path 7-04
45	39	E-7024	ATS detail - path 7-04
46	40	E-7034	Plant control detail - path 7-04
47	41	E-7044	Emergency source detail - path 7-04
48	42	E-7054	UPS and bypass detail - path 7-04
49	43	E-7015	Normal source detail - path 7-05
50	44	E-7025	ATS detail - path 7-05
51	45	E-7035	Plant control detail - path 7-05
52	46	E-7045	Emergency source detail - path 7-05
53	47	E-7055	UPS and bypass detail - path 7-05
54	48	E-7016	Normal source detail - path 7-06
55	49	E-7026	ATS detail - path 7-06
56	50	E-7036	Plant control detail - path 7-06
57	51	E-7046	Emergency source detail - path 7-06
58	52	E-7056	UPS and bypass detail - path 7-06
59	53	E-8011	Normal source detail - path 8-01
60	54	E-8021	ATS detail - path 8-01
61	55	E-8031	Plant control detail - path 8-01
62	56	E-8041	Emergency source detail - path 8-01
63	57	E-8051	UPS and bypass detail - path 8-01
64	58	E-8012	Normal source detail - path 8-02
65	59	E-8022	ATS detail - path 8-02
66	60	E-8032	Plant control detail - path 8-02
67	61	E-8042	Emergency source detail - path 8-02
68	62	E-8052	UPS and bypass detail - path 8-02
69	63	E-8013	Normal source detail - path 8-03
70	64	E-8023	ATS detail - path 8-03
71	65	E-8033	Plant control detail - path 8-03
72	66	E-8043	Emergency source detail - path 8-03
73	67	E-8053	UPS and bypass detail - path 8-03
74	68	E-8014	Normal source detail - path 8-04
75	69	E-8024	ATS detail - path 8-04
76	70	E-8034	Plant control detail - path 8-04
77	71	E-8044	Emergency source detail - path 8-04
78	72	E-8054	UPS and bypass detail - path 8-04
79	73	E-8015	Normal source detail - path 8-05

Drawing Index 3 of 3

P3 / 2026-10 · public sheet IDs and source technical revisions

Package pages 1-6 contain publication information. Drawing pages 1-102 follow on package pages 7-108.

Package	Drawing	Sheet	Subject
80	74	E-8025	ATS detail - path 8-05
81	75	E-8035	Plant control detail - path 8-05
82	76	E-8045	Emergency source detail - path 8-05
83	77	E-8055	UPS and bypass detail - path 8-05
84	78	E-8016	Normal source detail - path 8-06
85	79	E-8026	ATS detail - path 8-06
86	80	E-8036	Plant control detail - path 8-06
87	81	E-8046	Emergency source detail - path 8-06
88	82	E-8056	UPS and bypass detail - path 8-06
89	83	E-8017	Normal source detail - path 8-07
90	84	E-8027	ATS detail - path 8-07
91	85	E-8037	Plant control detail - path 8-07
92	86	E-8047	Emergency source detail - path 8-07
93	87	E-8057	UPS and bypass detail - path 8-07
94	88	E-901	6-rack unit 01 - two CDU dual-input branches
95	89	E-902	6-rack unit 02 - two CDU dual-input branches
96	90	E-903	6-rack unit 03 - two CDU dual-input branches
97	91	E-904	6-rack unit 04 - two CDU dual-input branches
98	92	E-905	6-rack unit 05 - two CDU dual-input branches
99	93	E-906	6-rack unit 06 - two CDU dual-input branches
100	94	E-907	6-rack unit 07 - two CDU dual-input branches
101	95	E-908	6-rack unit 08 - two CDU dual-input branches
102	96	E-909	6-rack unit 09 - two CDU dual-input branches
103	97	E-910	6-rack unit 10 - two CDU dual-input branches
104	98	E-911	6-rack unit 11 - two CDU dual-input branches
105	99	E-912	6-rack unit 12 - two CDU dual-input branches
106	100	E-913	6-rack unit 13 - two CDU dual-input branches
107	101	E-914	6-rack unit 14 - two CDU dual-input branches
108	102	E-915	6-rack unit 15 - two CDU dual-input branches

Whole-floor equipment layout withheld from public edition. Source sheet E-301 is omitted.

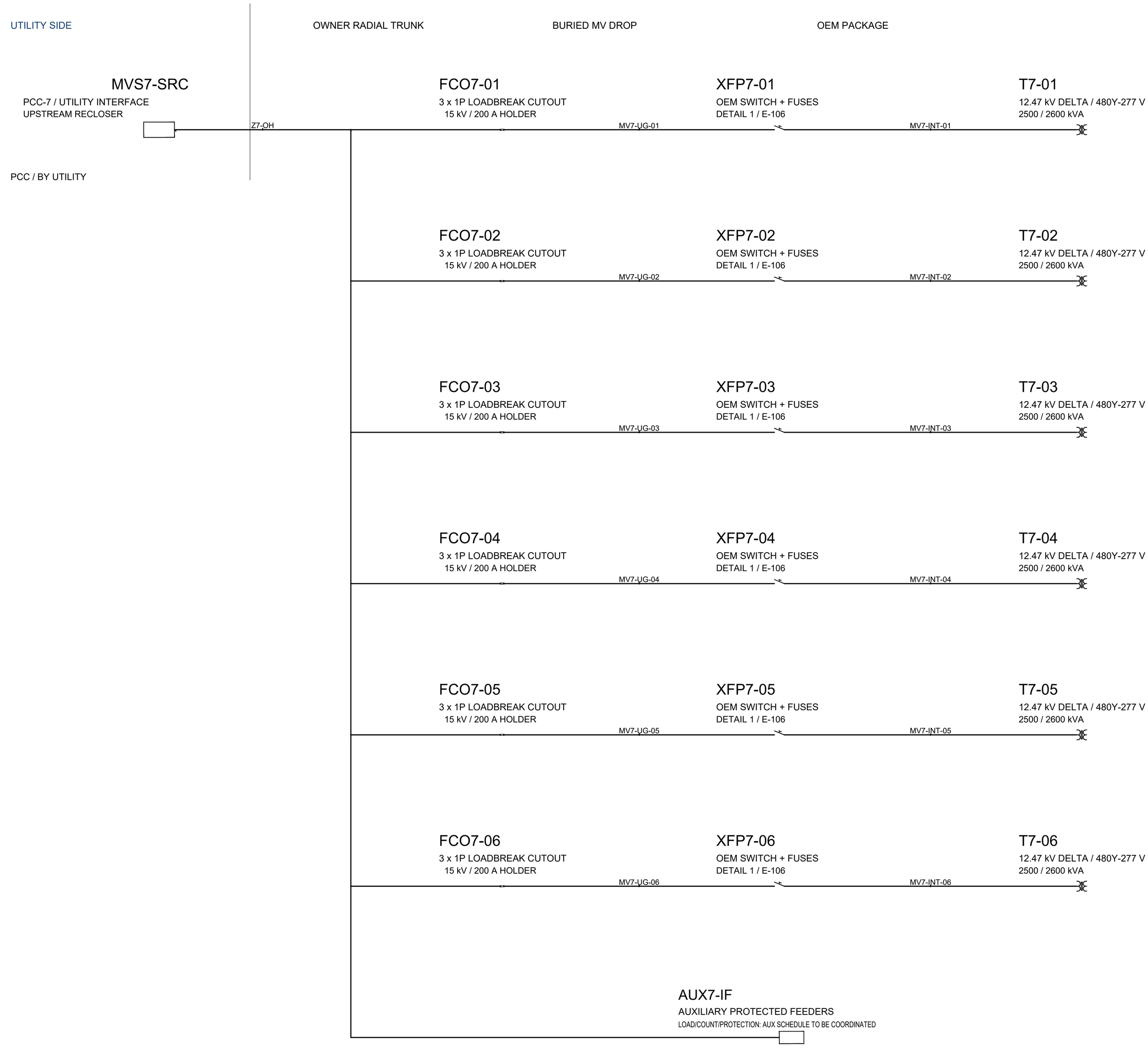
Drawing reference conventions

Off-sheet arrows identify continuations by sheet and grid. Sheet IDs, equipment tags and line types identify circuits. Technical revisions and stated dimensions remain those of each source sheet.

KK-RD / MEDIUM VOLTAGE DISTRIBUTION / ZONE 7

E-104 | 12.47 kV, 3 PHASE, 60 Hz | ZONE 7 INPUT - 7 MW LAYOUT STUDY

R2 / 25 SEP 2026 / DESIGN DEVELOPMENT / SINGLE-LINE, NOT TO SCALE



SYSTEM AND INTERFACE BASIS

PCC: utility upstream protection, metering and lockable service isolation to be identified.

Existing utility apparatus may satisfy these functions; no additional recloser is specified.

PCC position and route length follow utility-approved access and site survey; no MV zone tie.

Mechanical / auxiliary transformer feeders are additional; thirteen paths are critical power only.

CONDUCTOR AND PROTECTION SCHEDULE

Trunk study at 12.47 kV / PF0.95: 7 MW = 341.2 A; 7.5 MW = 365.5 A [S].

Proposed OH trunk: 336.4 kcmil ACSR Linnet; site thermal, sag and fault checks required.

Drop: 3 x 1/C 15 kV shielded Al; 1/0 AWG initial size; burial / fault check required.

Transformer primary (calculated): 115.7 A at 2500 kVA; 120.4 A at 2600 kVA.

Cutout holder rating is NOT the fuse-link rating. Link selection follows full TCC coordination.

Typical riser, termination, bonding and OEM enclosure arrangement: detail 1 / E-106.

SOURCE AND STATUS KEY

OEM GA + data sheet, 08 SEP 2026: 2500/2600 kVA discrepancy; capacity study uses 2500.

[F2] Layout: same-station 7+8 MW; Utility load study: 7.5+7.5 MW; final limits per agreement.

Design selection / calculation. Required design input.

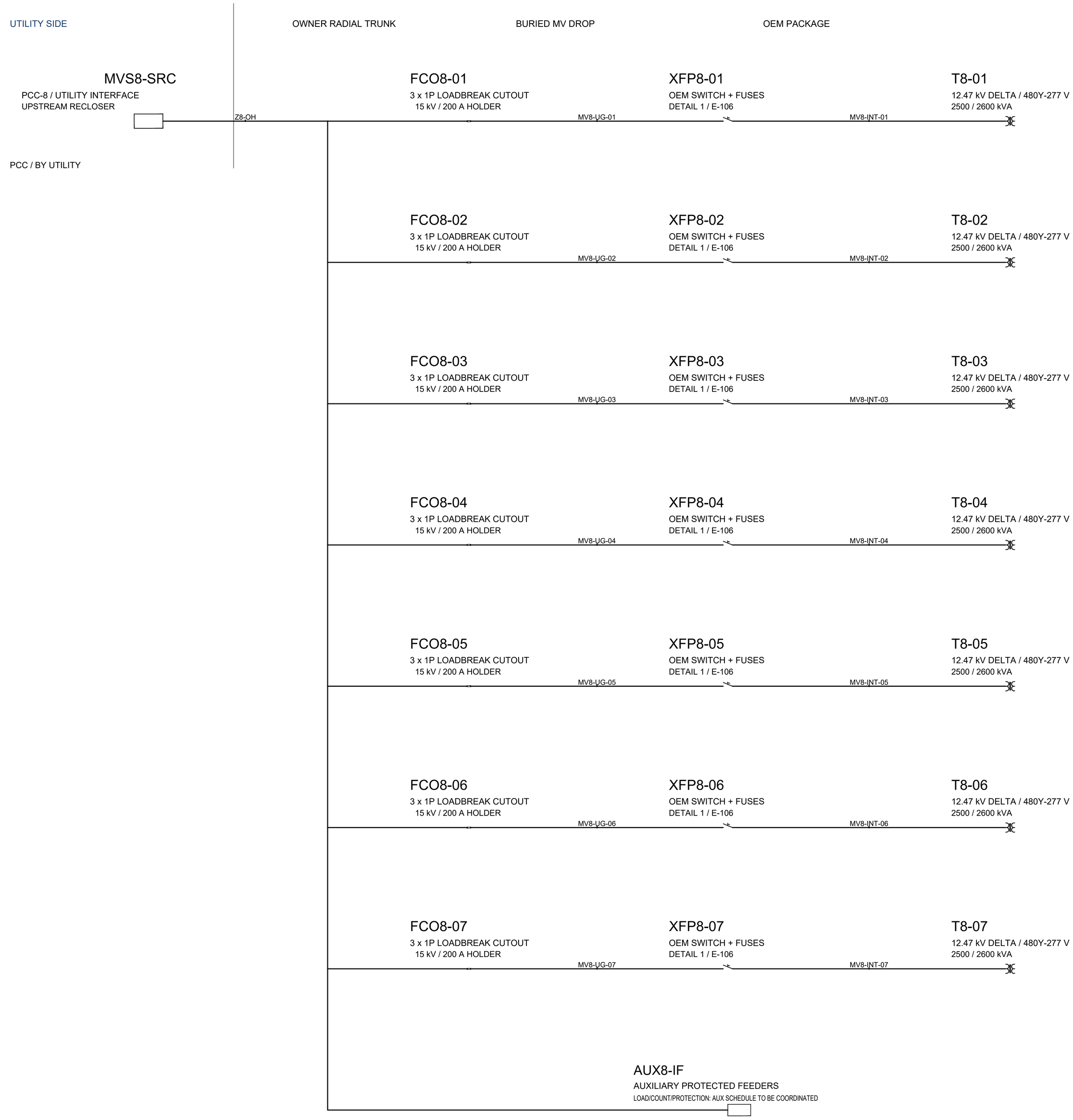
To be coordinated: Utility PCC / grounding / isolation; site route / soil / fault level; protection curves.

13 critical paths do not include auxiliary transformers. Auxiliary feeder schedule remains open.

KK-RD / MEDIUM VOLTAGE DISTRIBUTION / ZONE 8

E-105 | 12.47 kV, 3 PHASE, 60 Hz | ZONE 8 INPUT - 8 MW LAYOUT STUDY

R2 / 25 SEP 2026 / DESIGN DEVELOPMENT / SINGLE-LINE, NOT TO SCALE



SYSTEM AND INTERFACE BASIS

PCC: utility upstream protection, metering and lockable service isolation to be identified.

Existing utility apparatus may satisfy these functions; no additional recloser is specified.

PCC position and route length follow utility-approved access and site survey; no MV zone tie.

Mechanical / auxiliary transformer feeders are additional; thirteen paths are critical power only.

CONDUCTOR AND PROTECTION SCHEDULE

Trunk study at 12.47 kV / PF0.95: 8 MW = 389.9 A; 7.5 MW = 365.5 A [S].

Proposed OH trunk: 336.4 kcmil ACSR Linnet; site thermal, sag and fault checks required.

Drop: 3 x 1/C 15 kV shielded Al; 1/0 AWG initial size; burial / fault check required.

Transformer primary (calculated): 115.7 A at 2500 kVA; 120.4 A at 2600 kVA.

Cutout holder rating is NOT the fuse-link rating. Link selection follows full TCC coordination.

Typical riser, termination, bonding and OEM enclosure arrangement: detail 1 / E-106.

SOURCE AND STATUS KEY

OEM GA + data sheet, 08 SEP 2026: 2500/2600 kVA discrepancy; capacity study uses 2500.

[F2] Layout: same-station 7+8 MW; Utility load study: 7.5+7.5 MW; final limits per agreement.

Design selection / calculation. Required design input.

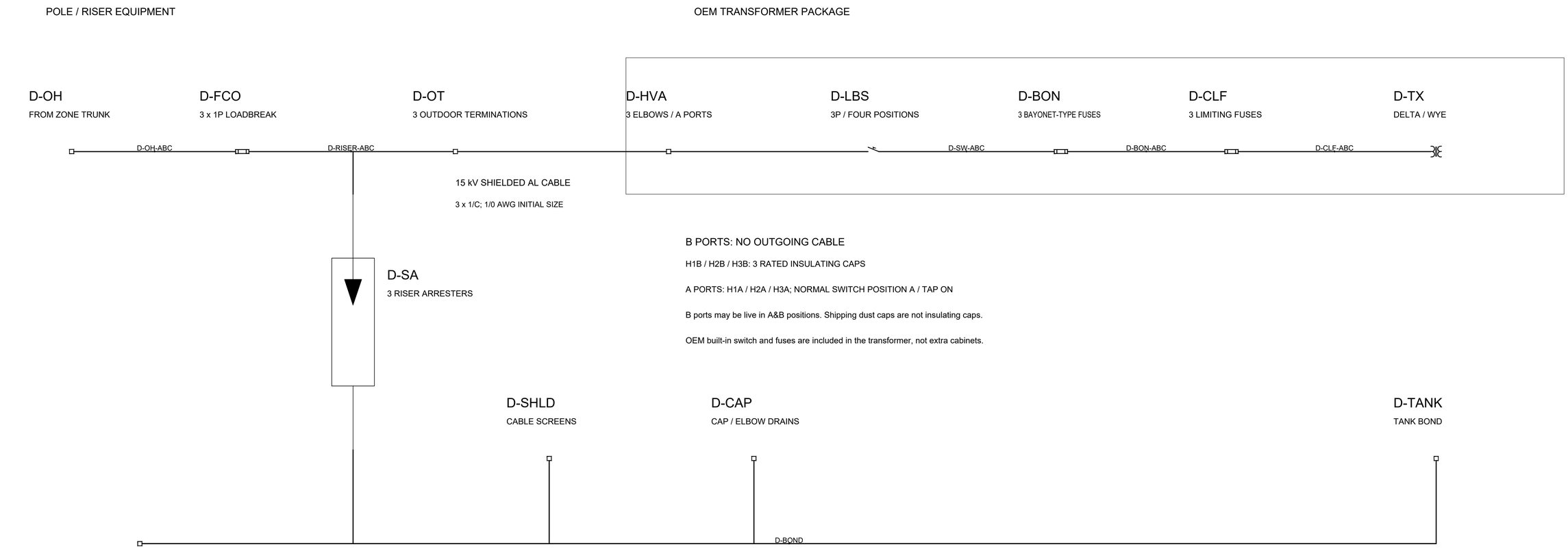
To be coordinated: Utility PCC / grounding / isolation; site route / soil / fault level; protection curves.

13 critical paths do not include auxiliary transformers. Auxiliary feeder schedule remains open.

KK-RD / TYPICAL MEDIUM-VOLTAGE TRANSFORMER BRANCH

E-106 | R2 | 25 SEP 2026 | DESIGN DEVELOPMENT | FUNCTIONAL SINGLE-LINE, NOT TO SCALE

DETAIL 1: THREE-PHASE BRANCH SHOWN AS ONE LINE; APPLIES TO E-104 / E-105



EQUIPMENT / PROCUREMENT SCOPE

13 critical branches: 6 on Zone 7 and 7 on Zone 8.

39 single-pole loadbreak cutouts; 15 kV / 200 A holder class.

39 riser arresters; MCOV / TOV and insulation coordination required.

39 outdoor terminations; 39 incoming elbows; 39 unused-port caps.

39 single-core MV cable runs; route lengths not yet fixed.

Elbows / caps supplied in OEM package are deducted from external scope.

Pole / guy / riser / earthing quantities follow surveyed routing.

D-prefix objects describe one typical branch; NOT additional purchase items.

Mechanical auxiliary branches are additional to these quantities.

PROTECTION / OPERATING REQUIREMENTS

Coordinate utility recloser, external links, MV cable, OEM fuses and LV protection.

200 A holder is not a 200 A fuse selection; match current and interrupting duty.

Use verified OEM three-phase loadbreak operation for normal switching.

Single-pole cutouts are not a gang switch; assess open-phase / ferroresonance.

Transformer replacement: isolate MV AND LV, control backfeed, test and earth.

TAP OFF does not prove every incoming / loop bushing is de-energized.

Keep overhead conductors / poles / guys clear of the crane operating envelope.

Recloser curves / fault range / grounding and OEM fuse curves remain inputs.

No cross-zone MV tie, primary loop-through, or new recloser is specified.

SOURCE / STATUS: OEM GA + DS, 08 SEP 2026; submitted data. design selection. required calculation input.

GA 2500 kVA / DS 2600 kVA: capacity uses 2500; primary-current screening covers 2600 kVA (120.4 A). BIL 95 kV; impedance 5.75%.

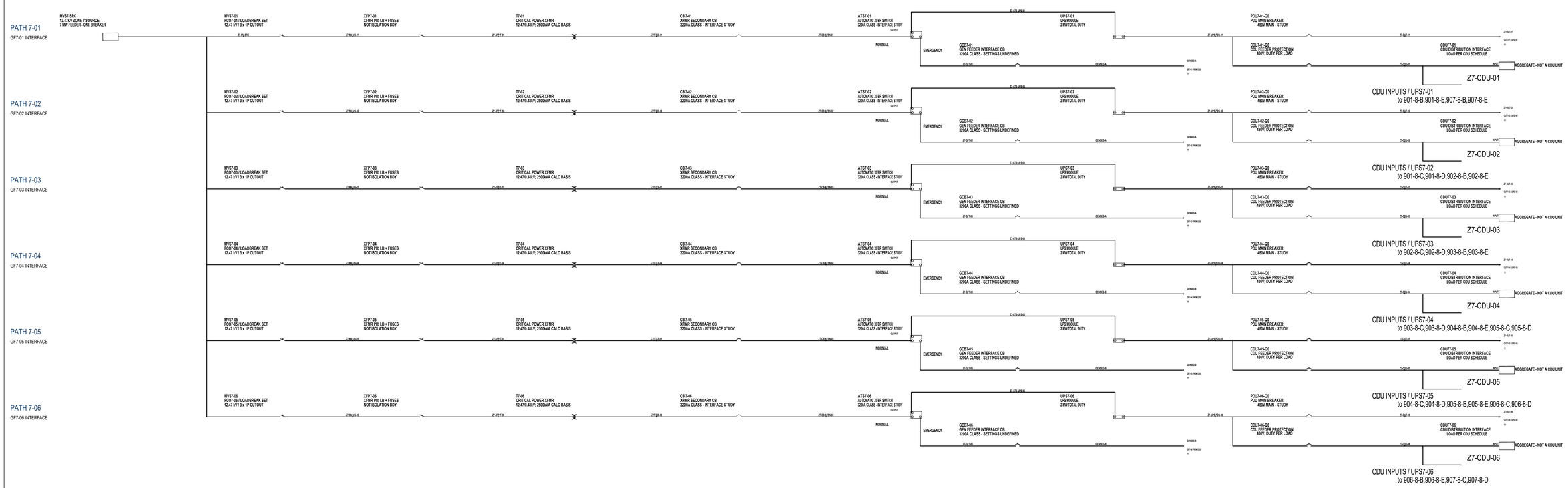
To be coordinated: source return / grounding conductor; fault / grounding / TOV. GA four-position diagram governs topology; OEM switch description requires reconciliation.

XY LOCATOR: A-J / 1-13

E-107 ZONE 7 - 6 UPS PATHS / 42 RACKS - MV TO RACK INTERFACE

ZONE 7: 12.47 kV / 480 V, 60 Hz. RACK DUAL-INPUT DISTRIBUTION AND GENERATING PLANT ARE OUTSIDE THIS SHEET.

DESIGN DEVELOPMENT - R2 - 2026-09-25



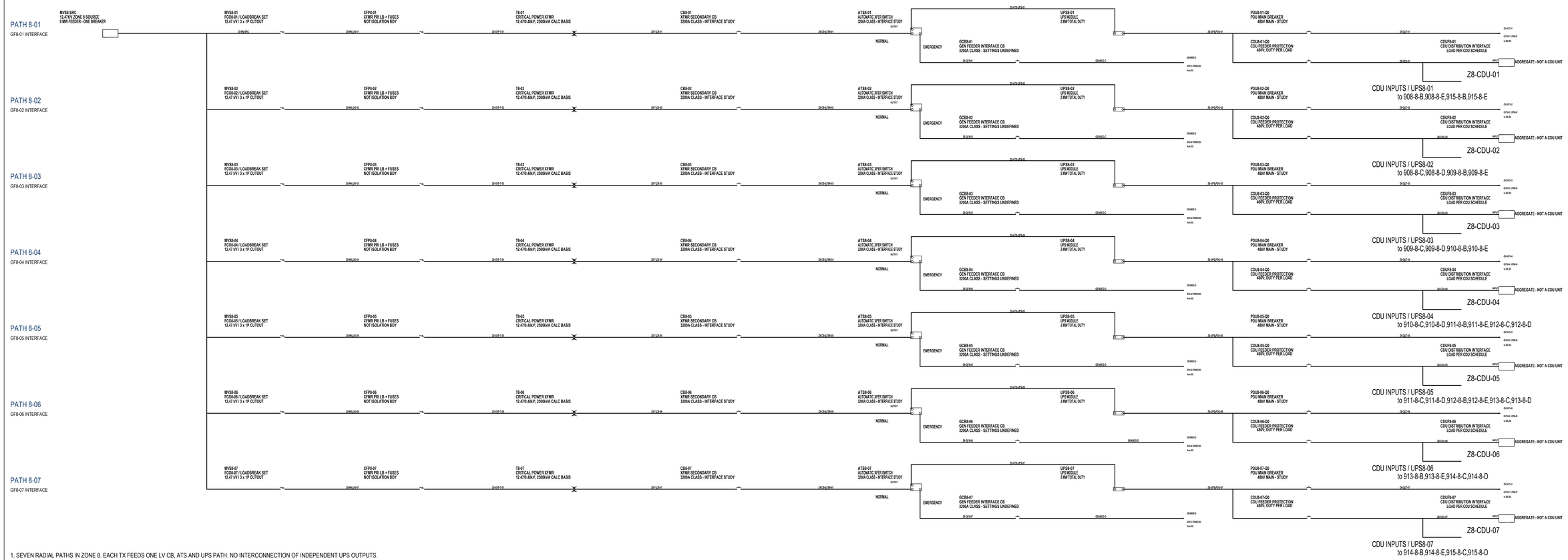
1. SIX RADIAL PATHS IN ZONE 7. EACH TX FEEDS ONE LV CB, ATS AND UPS PATH. NO INTERCONNECTION OF INDEPENDENT UPS OUTPUTS.
2. SAME-SUBSTATION INPUTS; 7+8 MW LAYOUT STUDY. ALTERNATIVE STUDY: 7.5+7.5 MW; LIMITS PER UTILITY AGREEMENT.
3. GF7-01..06 ARE SEPARATE GENERATOR FEEDER INTERFACES. GCB7-01..06 PROVIDE THE RESPECTIVE EMERGENCY FEEDER PROTECTION. GENERATOR PLANT: E203.
4. TRANSFORMERS: OEM 12.47/0.48kV; 2500kVA CALCULATION BASIS. FINAL NAMEPLATE AND INTERFACE DATA TO MATCH THE SUPPLY PACKAGE.
5. ATS: OPEN-TRANSITION TRANSFER, NOT OVERCURRENT PROTECTION. OEM DATA AND CALCULATIONS REQUIRED FOR TRIP SETTINGS, AIC, SCCR AND WITHSTAND / CLOSE-ON COORDINATION.
6. Z7-IT-01..06 CONTINUE TO THE RACK A/B INPUT GROUPS ON E201. GENERATOR SOURCES ARE ON E203; GCB7 FEEDER PROTECTION IS PHYSICALLY LOCATED AT THE GENERATOR PLANT.
7. UPS PATH TOTAL: 2 MW (IT + CDU). 2 x 1200 kVA/kW CANDIDATE; SINGLE-FRAME DUTY PER OEM.
8. IT-ONLY kW AT 136 / 155 PER RACK: NORMAL=952/1085; SINGLE-PATH LOSS=1428/1627.5. HEALTHY INPUTS SHARE 50/50.

XY LOCATOR: A-J / 1-13

E-108 ZONE 8 - 7 UPS PATHS / 48 RACKS - MV TO RACK INTERFACE

ZONE 8: 12.47 kV / 480 V, 60 Hz. RACK DUAL-INPUT DISTRIBUTION AND GENERATING PLANT ARE OUTSIDE THIS SHEET.

DESIGN DEVELOPMENT - R2 - 2026-09-25

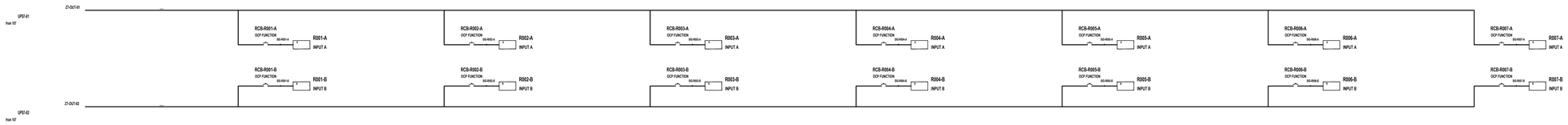


1. SEVEN RADIAL PATHS IN ZONE 8. EACH TX FEEDS ONE LV CB, ATS AND UPS PATH. NO INTERCONNECTION OF INDEPENDENT UPS OUTPUTS.
2. SAME-SUBSTATION INPUTS; 7+8 MW LAYOUT STUDY. ALTERNATIVE STUDY: 7.5+7.5 MW; LIMITS PER UTILITY AGREEMENT.
3. GF8-01..07 ARE SEPARATE GENERATOR FEEDER INTERFACES. GCB8-01..07 PROVIDE THE RESPECTIVE EMERGENCY FEEDER PROTECTION. GENERATOR PLANT: E203.
4. TRANSFORMERS: OEM 12.47/0.48kV; 2500kVA CALCULATION BASIS. FINAL NAMEPLATE AND INTERFACE DATA TO MATCH THE SUPPLY PACKAGE.
5. ATS: OPEN-TRANSITION TRANSFER, NOT OVERCURRENT PROTECTION. OEM DATA AND CALCULATIONS REQUIRED FOR TRIP SETTINGS, AIC, SCCR AND WITHSTAND / CLOSE-ON COORDINATION.
6. Z8-IT-01..07 CONTINUE TO THE RACK A/B INPUT GROUPS ON E202. GENERATOR SOURCES ARE ON E203; GCB8 FEEDER PROTECTION IS PHYSICALLY LOCATED AT THE GENERATOR PLANT.
7. UPS PATH TOTAL: 2 MW (IT + CDU). 2 x 1200 kVA/kW CANDIDATE; SINGLE-FRAME DUTY PER OEM.
8. IT-ONLY kW (136 / 155): 01,07 N=884/1007.5 F=1360/1550; 02..06 N=952/1085 F=1428/1627.5. HEALTHY INPUTS SHARE 50/50.

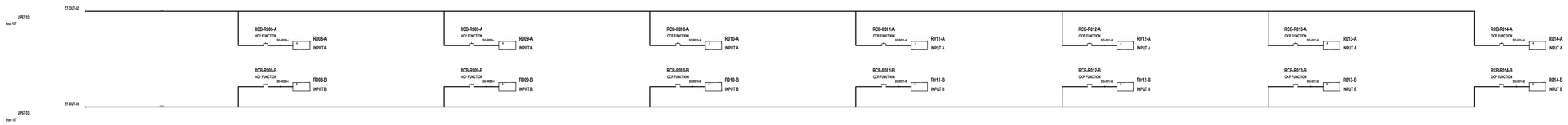
E201 ZONE 7 - 42 RACKS / INDEPENDENT A-B INPUT GROUPS

6 UPS PATHS / CYCLIC PAIRING WITHIN ZONE 7 ONLY / TWO POWER INTERFACES PER PHYSICAL RACK

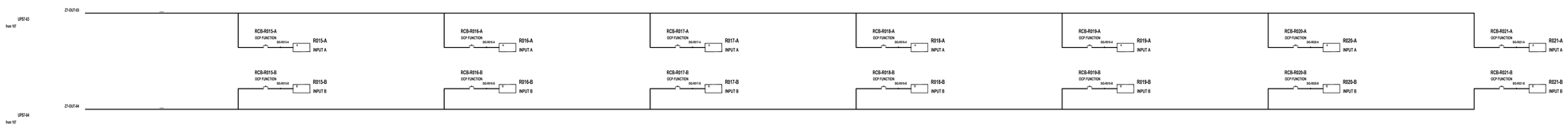
R001 - R007 | A: UPS7-01 B: UPS7-02 | 7 RACKS



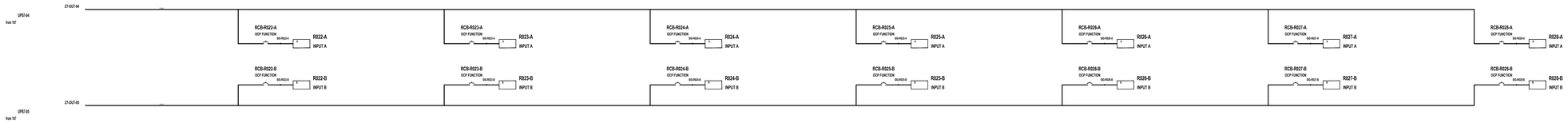
R008 - R014 | A: UPS7-02 B: UPS7-03 | 7 RACKS



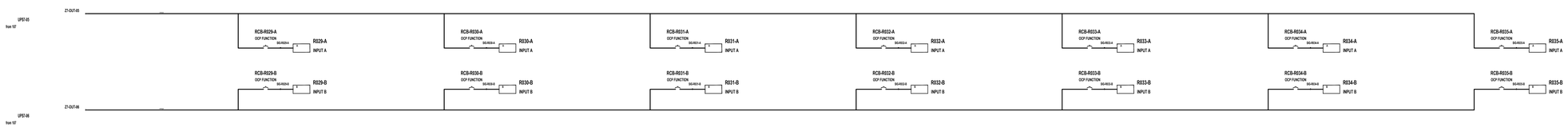
R015 - R021 | A: UPS7-03 B: UPS7-04 | 7 RACKS



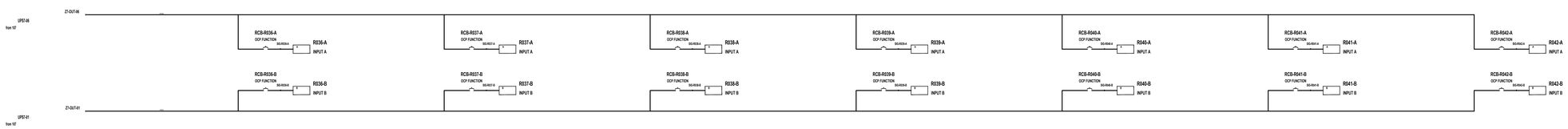
R022 - R028 | A: UPS7-04 B: UPS7-05 | 7 RACKS



R029 - R035 | A: UPS7-05 B: UPS7-06 | 7 RACKS



R036 - R042 | A: UPS7-06 B: UPS7-01 | 7 RACKS



DESIGN BASIS: Each rack has two independent input groups; each group supports the specified surviving-side duty. No UPS AC outputs are tied together.

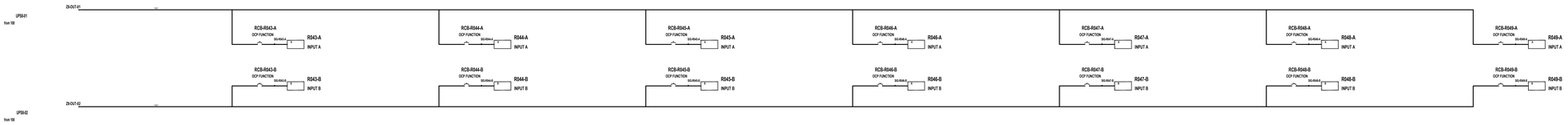
IT COMPARISON: 136 / 155 kW per rack; healthy input sharing 50/50. Per-path 2 MW includes IT + CDU. Full duties and facility budgets: E204.

RCB tags denote branch protection functions; final branch / whip quantity, current and poles follow server OEM input architecture.

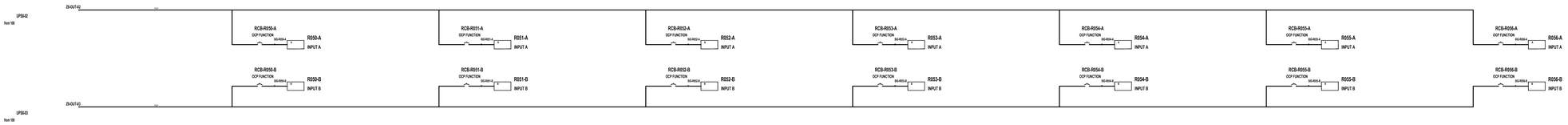
E202 ZONE 8 - 48 RACKS / INDEPENDENT A-B INPUT GROUPS

7 UPS PATHS / CYCLIC PAIRING WITHIN ZONE 8 ONLY / TWO POWER INTERFACES PER PHYSICAL RACK

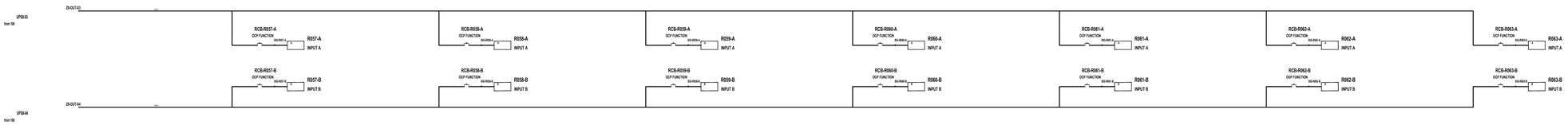
R043 - R049 | A: UPS8-01 B: UPS8-02 | 7 RACKS



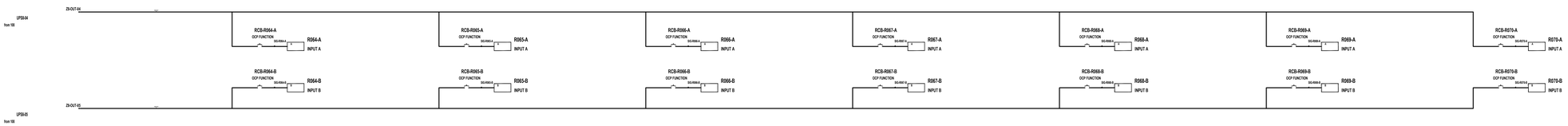
R050 - R056 | A: UPS8-02 B: UPS8-03 | 7 RACKS



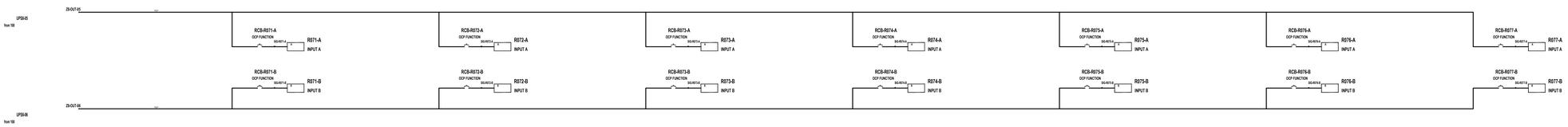
R057 - R063 | A: UPS8-03 B: UPS8-04 | 7 RACKS



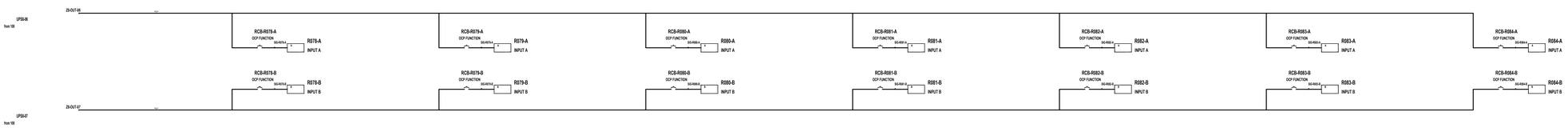
R064 - R070 | A: UPS8-04 B: UPS8-05 | 7 RACKS



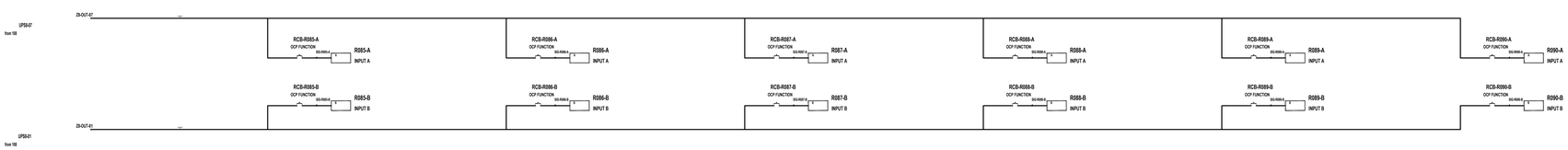
R071 - R077 | A: UPS8-05 B: UPS8-06 | 7 RACKS



R078 - R084 | A: UPS8-06 B: UPS8-07 | 7 RACKS



R085 - R090 | A: UPS8-07 B: UPS8-01 | 6 RACKS



DESIGN BASIS: Each rack has two independent input groups; each group supports the specified surviving-side duty. No UPS AC outputs are tied together.

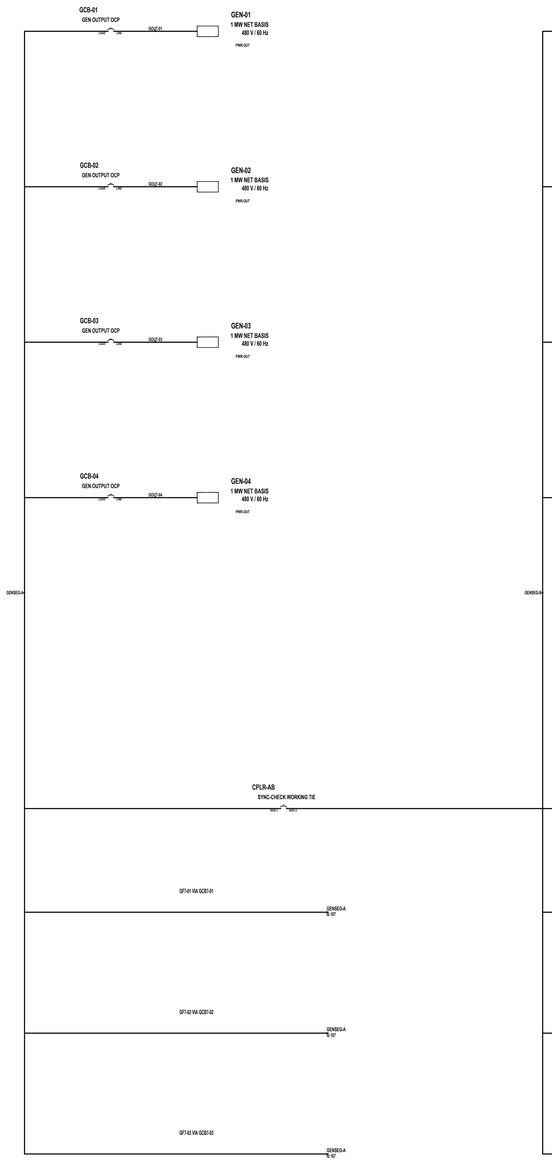
IT COMPARISON: 136 / 155 kW per rack; healthy input sharing 50/50. Per-path 2 MW includes IT + CDU. Full duties and facility budgets: E204.

RCB tags denote branch protection functions; final branch / whip quantity, current and poles follow server OEM input architecture.

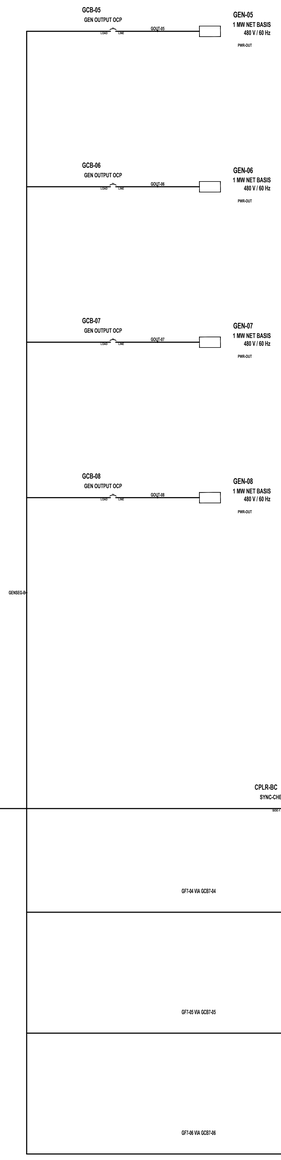
E203 GENERATOR PLANT - FOUR SECTIONS / THREE WORKING COUPLERS

DESIGN BASIS (STUDY): 16 x 1 MW SITE-NET OUTPUT; 480 V / 60 Hz. 13 UPS FEEDERS CONTINUE TO E107 / E108.

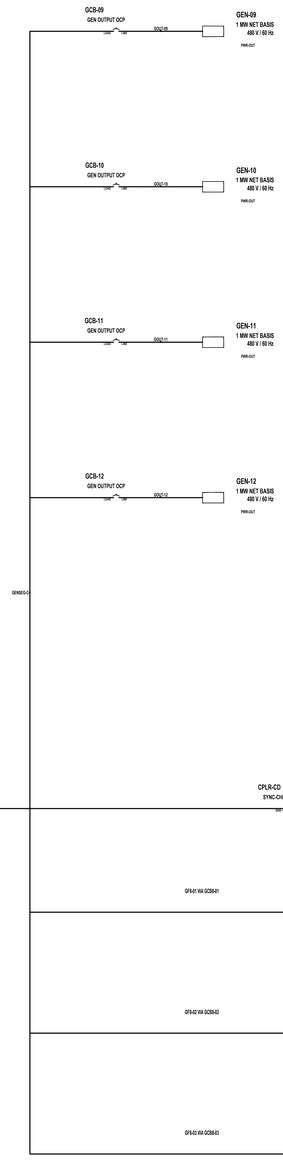
GENSEG-A / GEN-01 TO 04



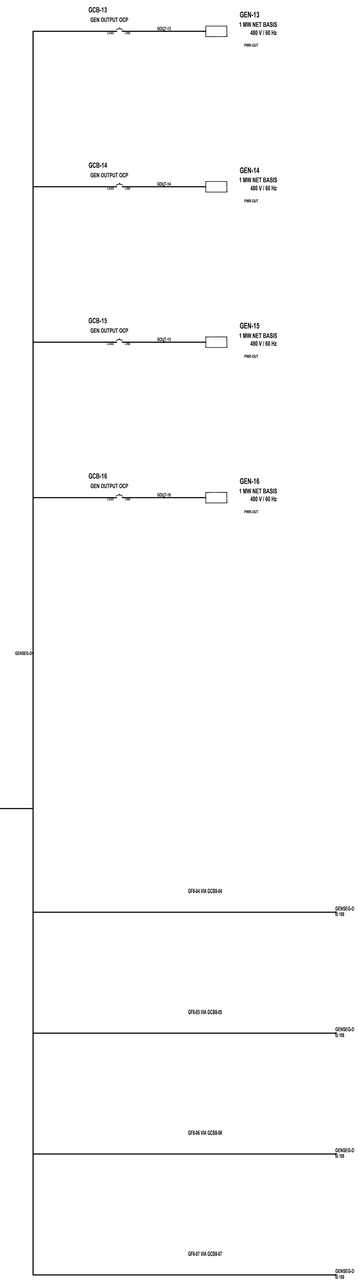
GENSEG-B / GEN-05 TO 08



GENSEG-C / GEN-09 TO 12



GENSEG-D / GEN-13 TO 16



1. First available generator closes to a verified dead bus; subsequent machines and live-bus couplers require synchronism-check permissives. Establish required working ties before loading beyond a local section.

2. The 13 outgoing feeder protection functions GCB7-01..06 / GCB8-01..07 are shown on E107 / E108 and physically belong to the generator switchgear; they are not additional breakers on this sheet.

3. On utility loss, UPS batteries maintain affected IT and all assigned CDU loads. Inhibit charging before generator pickup; restore input paths sequentially within available generation. Healthy-zone ATS may remain on utility.

4. No utility paralleling and no UPS AC output interconnection. Section protection and coupler interlocks isolate a faulted section; remaining capacity depends on the isolated section and connected generators.

5. Section / tie duties: E204. Recalculate after a UPS or set exits; working ties carry transferred load. Neutral / PE: E7061. Fault and step duties use actual OEM data.

E204 OPERATING DUTY / 13 UPS PATHS - 4 GENERATOR SECTIONS

kW STUDY VALUES / M34 / 22 OCT 2026 / TOPOLOGY: E107-E108, E201-E203

PATH IT DUTY - NORMAL / WORST SINGLE UPS OUTPUT LOSS					
UPS PATH	GEN SEG	IT N136	IT F136	IT N155	IT F155
UPS7-01	A	952	1428	1085	1627.5
UPS7-02	A	952	1428	1085	1627.5
UPS7-03	A	952	1428	1085	1627.5
UPS7-04	B	952	1428	1085	1627.5
UPS7-05	B	952	1428	1085	1627.5
UPS7-06	B	952	1428	1085	1627.5
UPS8-01	C	884	1360	1007.5	1550
UPS8-02	C	952	1428	1085	1627.5
UPS8-03	C	952	1428	1085	1627.5
UPS8-04	D	952	1428	1085	1627.5
UPS8-05	D	952	1428	1085	1627.5
UPS8-06	D	952	1428	1085	1627.5
UPS8-07	D	884	1360	1007.5	1550

SEGMENT IT DUTY - NORMAL / UPS8-03 OUTPUT UNAVAILABLE				
SEGMENT	IT N136	IT F136	IT N155	IT F155
A	2856	2856	3255	3255
B	2856	2856	3255	3255
C	2788	2312	3177.5	2635
D	3740	4216	4262.5	4805

16 ONLINE COMPARISON / IT FLOW kW / ALL TIES CLOSED				
TIE / +DIR	N136	F136	N155	F155
AB / A>B	210.31	210.31	239.69	239.69
BC / B>C	420.62	420.62	479.38	479.38
CD / C>D	701.03	1191.75	798.97	1358.25

kW / ITseg/0.97 BASIS / EXCLUDES U_s

INPUT CAPACITY / REMAINING BUDGET - MW					
CASE	SUPPLY MW	IT IN 136	LEFT 136	IT IN 155	LEFT 155
UTILITY SITE	15.000	12.619	2.381	14.381	0.619
ZONE 7 / LAYOUT	7.000	5.889	1.111	6.711	0.289
ZONE 8 / LAYOUT	8.000	6.730	1.270	7.670	0.330
GEN 16 / COMPARE	16.000	12.619	3.381	14.381	1.619
GEN 15 / ONE OUT	15.000	12.619	2.381	14.381	0.619
ZONE 7 / STUDY	7.500	5.889	1.611	6.711	0.789
ZONE 8 / STUDY	7.500	6.730	0.770	7.670	-0.170

15 SETS / IT FLOW kW / LAST 2 ROWS: UPS + SET LOSS					
RACK kW	SET OUT IN	ONLINE A/B/C/D	AB / A>B	BC / B>C	CD / C>D
136	A	3/4/4/4	-420.619	0.000	490.722
136	B	4/3/4/4	420.619	0.000	490.722
136	C	4/4/3/4	420.619	841.237	490.722
136	D	4/4/4/3	420.619	841.237	1331.959
155	A	3/4/4/4	-479.381	0.000	559.278
155	B	4/3/4/4	479.381	0.000	559.278
155	C	4/4/3/4	479.381	958.763	559.278
155	D	4/4/4/3	479.381	958.763	1518.041
155	B + U7-01	4/3/4/4	1038.660	0.000	559.278
155	D + U8-03	4/4/4/3	479.381	958.763	2077.320

1. 90 design rack positions; 136/155 kW are comparison points, not simultaneous contracted demand. Utility total 15 MW; layout 7+8 MW and utility load-study reference 7.5+7.5 MW remain separate.

2. N: healthy rack inputs share 50/50. Path F: each path maximum over single output losses; maxima are not simultaneous. Segment/tie F: UPS8-03 output loss only.

3. Per-path 2 MW is TOTAL UPS output, including CDU and other assigned output loads. 2 x 1200 kVA/kW is a candidate package, not a proven single-frame-failure rating.

4. Capacity / 15-set table: N rack sharing, eta=0.97, 1,000 kW net per set as STUDY. Remaining MW jointly covers CDU/eta, cooling, auxiliary loads, uncounted losses, permitted AC recharge and reserve.

5. U_s: actual extra section input kW; count each load/loss once. Reserve occupies capacity, not steady flow. Unknown loads are not zero; negative budgets exceed the input limit.

6. All tie tables use A>B, B>C, C>D. Healthy ties closed; equal real kW per online set. Full flow = IT flow + (n_left/n_online)*SUM(U_s) - U_left. n_online is 16 or 15 as titled. Last two 15-set rows add the stated UPS loss.

7. Tie kW is not ampere, withstand or interrupting rating. Check actual U, PF/VAR, voltage, transient and protection duty; each isolated island separately. UPS-output plus set-loss is a separate stress case.

8. 90 x155 kW on 15 MW input requires facility PUE <=1.0753 including UPS loss. Actual OEM ratings, sharing envelope and charging conditions govern allowed operation.

DESIGN COORDINATION / CALCULATED CAPACITY AND POWER FLOW

E205 GENERATOR OPERATING SEQUENCE

K0 TOPOLOGY / 16 SETS - 4 SECTIONS - 3 TIES / FUNCTIONAL REQUIREMENTS / 03 OCT 2026

GENERATOR OPERATING SEQUENCE / FUNCTIONAL REQUIREMENTS			
STATE	MODE / EVENT	REQUIRED ACTION	INTERLOCK / SERVICE BOUNDARY
ST-01	UTILITY / STANDBY	ATS on N; GBs open; ties preclosed only on proved dead bus	No LOTO; proven positions; one close command at a time
ST-02/03	BLACK START	Start sets; charge inhibit; one first GB per connected island	Independent voltage proof + arbitration; subsequent GBs synchronise
ST-04/05	STAGED PICKUP	One ATS emergency close permit; latch after closed feedback	Net capacity + U + reserve + step/kVA checks; permit loss is NOT a trip
ST-06/07	SET FAIL / TRIP	One set fails/trips: use actual 15-set net capability; recalculate section and tie flows before additional pickup	Include cooling, auxiliary load, losses and reserve; no assumed IT curtailment or essential CDU shedding; battery support is time-limited
ST-08	UPS OUTPUT LOSS	Rack inputs use surviving paths; recompute island, section and tie demand	Separate UPS outputs; include CDU. Check single-frame failure separately from whole-path loss.
ST-09	SEGMENT FAULT	Isolate faulted section. Affected UPS inputs use battery support; do not energise the isolated bus through ties	With utility unavailable: A/B/C each expose 14 racks, D exposes 21 after battery autonomy; cooling checked separately
ST-10/11	TIE / MAINTENANCE	Planned generator-bus work with both utility feeds healthy; prove isolation and supply affected loads from utility	Phase ties open do not isolate shared neutral. Neutral work requires separate all-source isolation under adopted N scheme; assess each phase island and changed backup availability
ST-12	UTILITY RETURN	Open-transition retransfer; stagger recharge using verified OEM charging functions	Respect the applicable service, TX and cable limits; recharge only by verified OEM functions; no assumed whole-UPS input cap
ST-13/14	COMMS / DC LOSS	Local protection remains; block unqualified new closes	OEM fail-state test: verify continued operation and black start
ST-15..18	PERMIT / TIE FAILURE	Debounce permits; distinguish open / closed / UNKNOWN	UNKNOWN is NOT isolation. Failure to open: no maintenance. Failure to close + proved open: islands
ST-19	COMMON-BUS DUTY GATE	Release each allowed parallel/island mode after node fault-duty and protection-coordination calculations	Check maximum withstand and minimum trip current, ATS WCR, clearing time, UPS bypass/inverter modes and actual source contributions

BASIS: STUDY FUNCTIONAL REQUIREMENTS; OEM INTEGRATION AND FUNCTION TESTING REQUIRED.

FULL CONTROL STATES: E205 (ST-01 through ST-19); physical generator network: E203; study loads: E204.

ST-14: AC-supplied BTB cannot operate with both busbars dead. Verify control-power architecture with integrator.

U = assigned CDU, charging, auxiliary and uncounted losses; non-zero quantities remain to be established. Reserve is additional where required.

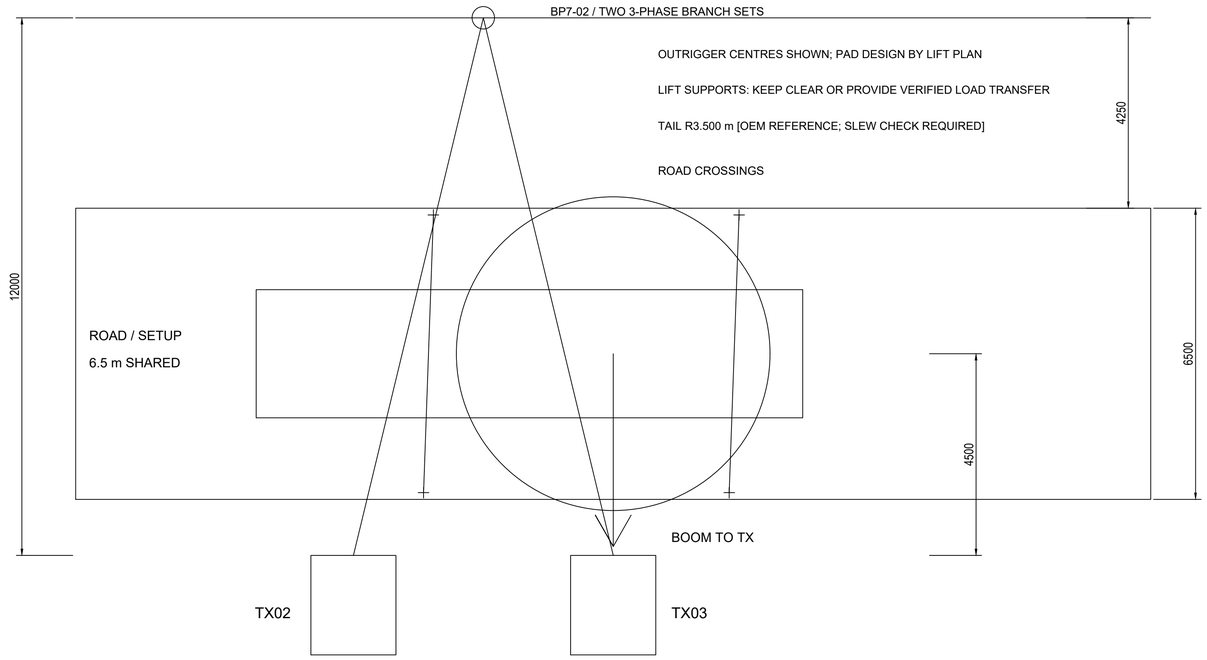
SOURCE: Alternator X"d=17.1% reported; confirm base, decrement, X/R and connections. OEM controller documentation pp17-23,62-64,69-72,84; OEM generator data pp1-3; project calc.

SCOPE: FUNCTIONAL REQUIREMENTS; CONTROL WIRING BY INTEGRATOR. K1/K2 FEEDER ALTERNATIVES ARE NOT ADOPTED.

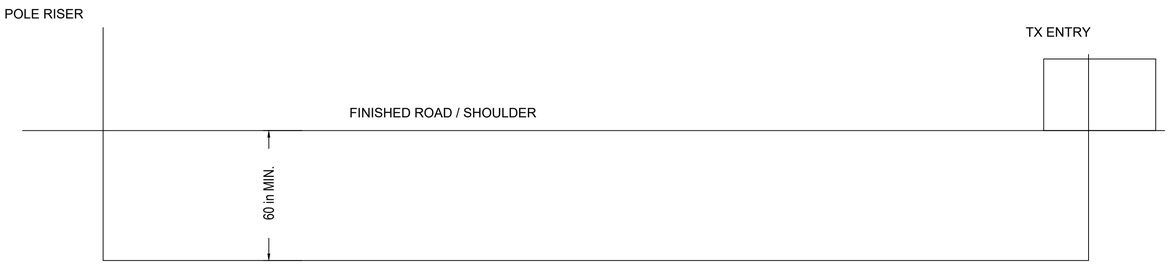
KK-RD | CRANE ACCESS AND MV CROSSING

E-302 / R4 / 26 SEP 2026 / CRANE ACCESS AND BURIED CROSSING INTERFACES - NTS

1 SHARED ROAD / CRANE SETUP [STUDY]



2 BURIED CROSSING / CONSTRUCTION INTERFACE



* TO CONDUIT TOP; ENLARGED SECTION E-303

Controlled trench construction extends through road and shoulders.

Transitions at pole risers and TX entries follow cable bend / pulling limits.

E-303 defines cover, bedding, pipe-zone work and inspection records.

Vehicle wheel loading and lifting support reactions are separate cases.

Lift planning shall first locate supports clear of the buried-route influence.

Where overlap remains, verify support load transfer with actual reactions.

No support-pad size or concrete protection section is specified on this sheet.

Shared-road travel and lifting are scheduled separately; retain emergency access.

References: Crane product guide; OSHA 1926.1402 / 1408 / 1411; OEM GA; E-301 R4; E-303 R4.

OEM dimensions; proposed crane / route; actual lift, support design and live-line clearance required.

3 GEOMETRY / LIFT AND ELECTRICAL INTERFACES

LAYOUT BASIS [STUDY; E-301 COORDINATES]

TX outer face to branch-pole row: 12000 mm transverse.

Road edges Y22370 / Y28870; shared width 6500 mm.

Crane slew-axis example Y25620; TX-face distance 4500 mm.

Road-edge to pole-row distance 4250 mm; not an electrical clearance.

Crane reference: 6200 mm outrigger spread; 6825 mm longitudinal.

Vehicle axis offsets -7972 / +4231 mm; width 2860 mm.

Tail radius 3500 mm per reference product guide; actual configuration governs.

No fixed crane stopping or support position is assigned.

LC-T / TRAVEL: TRENCH BASIS ON E-303

Actual mobilized axle loads, wheel spacing, contact and turning are inputs.

Travel release follows ground, backfill and vehicle-load verification.

LC-O / LIFT SUPPORTS: LIFT-SPECIFIC DESIGN

Use OEM reactions for actual load, radius, slew and counterweight.

Verify support bearing, settlement, mat action and buried-service protection.

LC-C / CONSTRUCTION: ACTUAL STAGE CONDITIONS

Temporary traffic uses actual cover and achieved backfill condition.

OVERHEAD CLEARANCE / OPERATION

Verify all crane parts, load and rigging against sag, swing and accessories.

OSHA 1926.1408 Table A: <=50 kV basis 10 ft (3.048 m).

The 20 ft assessment trigger is not a pole-to-TX siting dimension.

Apply below-line restrictions and the applicable operating controls.

12 m row: verify crane, load, rigging and conductor clearances.

Branch isolation does not de-energize the adjacent overhead trunk.

ELECTRICAL / MAINTENANCE

12.47 kV radial branches and protection: E-104 to E-106 unchanged.

A 200 A cutout holder rating does not select the fuse-link current.

Isolate MV and all LV backfeed; verify dead and ground for TX removal.

Maintain terminal access, drainage, cable bends and emergency access.

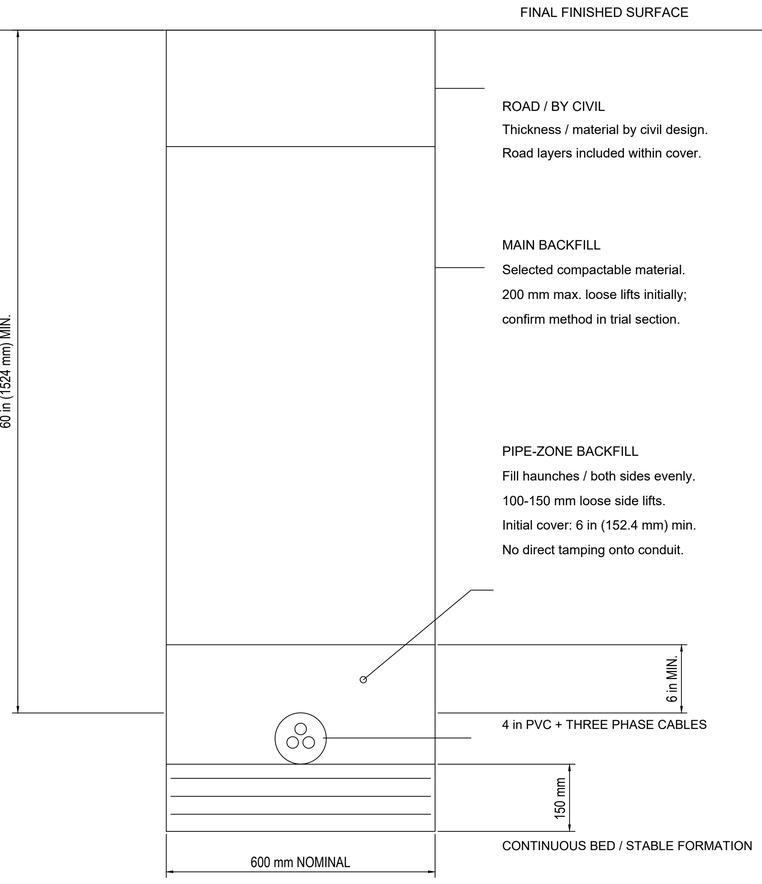
As-built records identify buried routes and adopted travel / lift conditions.

K&K Data Service Inc. | inquiry@kkdatasvc.com | Copyright 2026 | DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10

KK-RD | MEDIUM-VOLTAGE TRENCH AND HEAVY-VEHICLE CROSSING

E-303 / R4 / 26 SEP 2026 / DESIGN DEVELOPMENT / SECTION NTS / DIMENSIONS AS NOTED

1 TYPICAL SINGLE-BRANCH TRENCH



Cover measured vertically to TOP OF CONDUIT, not trench bottom.

Illustrated 114.3 mm OD + 150 mm bed gives ~1788 mm excavation.

600 mm is a nominal single-duct work width, not a shoring clearance.

Shared-pole double drops: coordinate separation, pulling and mutual heating.

No concrete encasement or steel sleeve is assumed in this base section.

Reinstate road / shoulders without abrupt settlement steps; civil acceptance required.

2 VEHICLE-LOAD SCREEN [S]

60 in cover; three axles at 0 / 2.79 / 4.44 m; track 2.285 m.

Axle load / wheel split	Live at pipe top	Soil + live
12 t / 50:50	20.00 kPa	50.48 kPa
16 t / 50:50	26.66 kPa	57.14 kPa
16 t / 55:45	28.94 kPa	59.42 kPa

Boussinesq six-point screen; factor 1.3; soil weight 20 kN/m3.

Load effects only; verify conduit strength and crane limits.

3 MATERIALS AND INSTALLATION

Conduit: 4 in solid-wall electrical PVC, UL 651 listed, 90 C rated;

Sch40 is the base candidate. Reference OD 114.3 / min. wall 6.02 mm.

Product ring stiffness, long-term properties and allowable deformation

are submitted for load verification before conduit procurement release.

Branch: 3 x 1/C 15 kV shielded Al 1/0 AWG; final cable selection

includes 60 in burial, soil thermal resistivity, duct grouping and faults.

Primary-current screen: 2600 kVA / (sqrt(3) x 12.47 kV) = 120.38 A.

Provide clean, stable, drained formation; remove unsuitable material.

Use compatible selected bedding / surround without sharp inclusions.

Joint, cure, support and backfill to the selected conduit instructions.

Riser, bends, seals and pulls follow cable and termination requirements.

Warning tape / markers: coordinated utility requirement and as-built level.

4 INSPECTION AND CONTRACTOR DELIVERABLES

Before covering: inspect formation, continuous bed, joints and haunch fill.

Set out final grade; record conduit-top levels and 60 in minimum cover.

Submit material grading, moisture control, lift thickness and trial method.

Geotechnical acceptance sets density test method / target / frequency

for pipe zone and road fill separately; no assumed soil modulus from density.

Keep layer-quality records; mandrel / clean ducts and install pull ropes.

Record duct IDs, surveyed routes, depth, bends, seals and cable tests.

Include excavation protection, dewatering and disposal in contractor scope.

Excavation ~1788 mm exceeds 5 ft: worker entry needs an OSHA 1926.652

protective system, except applicable stable-rock conditions.

Traffic release uses actual axle data and achieved cover / backfill condition.

5 DESIGN INPUTS AND VERIFICATION

Site investigation and supplier / transport data establish ground conditions,

groundwater, backfill mechanics and thermal properties.

Verify pipe deformation, stress, creep and groundwater buckling; verify

cable ampacity and fault duty. Local protection is added only where required.

Outrigger reactions and pad design are separate from this wheel-load screen

(E-302); support-mat load spreading is not credited to this trench section.

Adopted criterion; proposed design basis.

Required inputs to complete before construction issue.

Cover basis: 60 in cover; utility interface review by the serving utility.

Utility-owned extension scope and interface acceptance remain separate.

Sources: OEM PVC catalog pp.4-5,159; Crane guide pp.7-8;

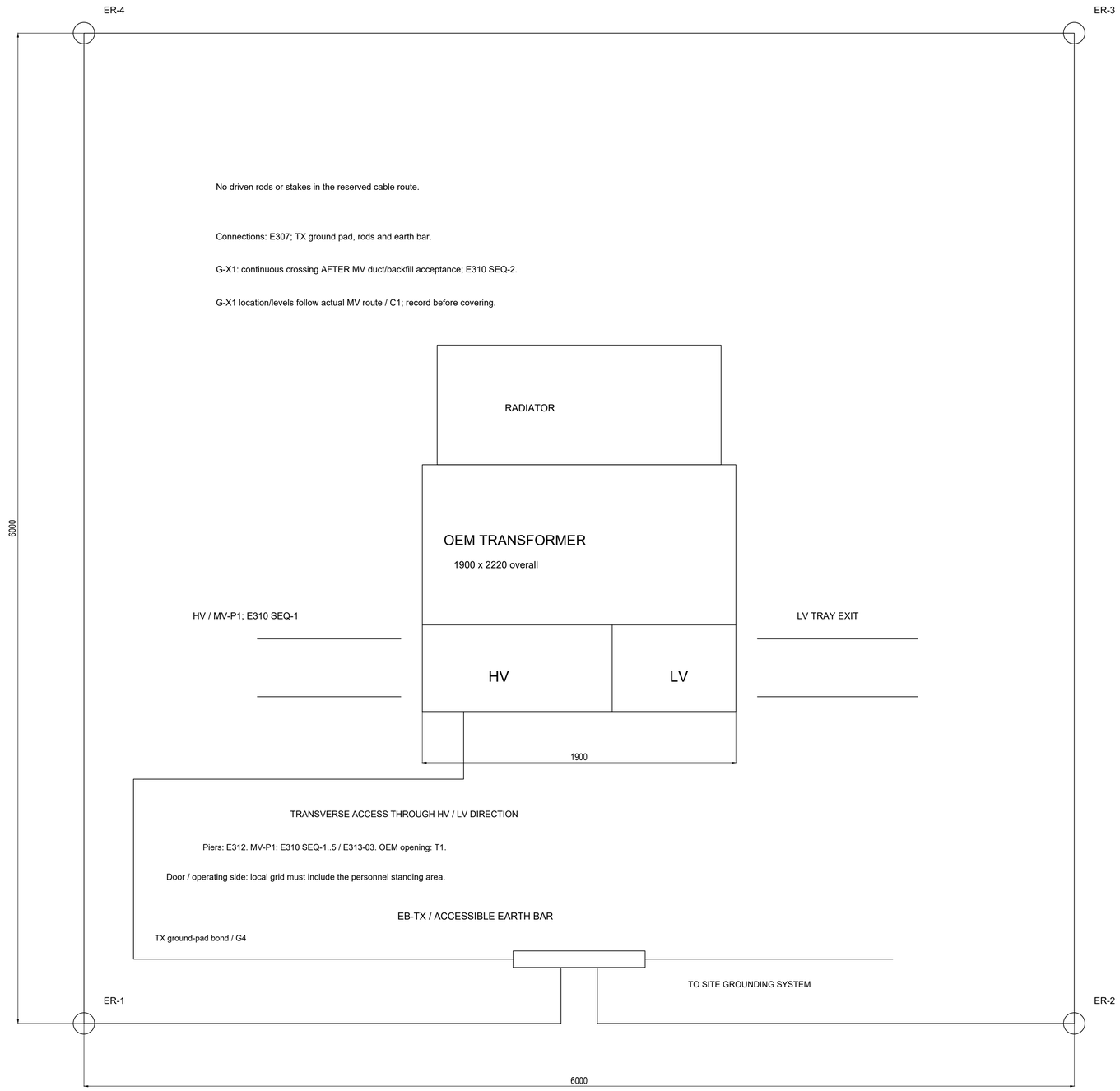
serving utility policy; OSHA 1926.652; reference utility technical provisions (load method).

Calculation basis: K&K Data trench-load calculation, 25 SEP 2026; preliminary screening.

KK-RD / TRANSFORMER INSTALLATION

E-306 / S-C03 / LOCAL EARTH ELECTRODES AND CONNECTION INTERFACE

1 LOCAL PLAN / PROPOSED 6000 x 6000 ELECTRODE ENVELOPE



2 CONFIGURATION AND INSTALLATION

ER-1..4: four listed copper-bonded steel rods.

Candidate rod: 3/4 in diameter x 10 ft long.

Ring: 2/0 AWG bare copper; candidate depth800 mm.

Plan perimeter: nominal24 m; add both risers and leads.

One continuous conductor; both ends terminate at EB-TX.

Each rod uses a listed direct-burial bolted clamp.

Select clamp for actual rod / conductor / strand class.

EB-TX: accessible copper bar >=1/4 x2 in.

Separate terminal positions; no operating disconnect.

Grid connected to the site system; not isolated earth.

No welding required by this connection arrangement.

Protect existing ring; no cut-and-rejoin with ordinary bolts.

Listed buried fittings for actual use; GEC splices: 250.64(C).

3 SEPARATE CONDUCTOR FUNCTIONS

GEC: general-table screen3/0 Cu for8x1000Al/phase.

Electrode-specific sizing exceptions remain applicable.

SBJ / SSBJ: calculate separately under250.102(C).

Do not use3/0 Cu as a universal bonding-jumper limit.

MV EGC:250.190(C),250.122; >=6AWG Cu, then size

for protection and fault duty. Ring is not the fault return.

Keep neutral bonding at one coordinated point per TX.

Do not add a second N-PE bond in the indoor cabinet.

4 DESIGN AND TEST BASIS

6x6 m and four rods: proposed electrode arrangement;

touch/step-voltage verification remains required.

Confirm soil resistivity, fault split and clearing time.

Rebar and four structural piles are supplementary;

do not credit them to make the base earth grid pass.

Check all electrode ties, continuity and test method.

25 ohms is not a universal MV-yard acceptance target.

Final site position avoids poles, crane supports and ducts.

References: NEC2017 Art250; OEM GA08Sep2026;

Transformer grounding specification R2.

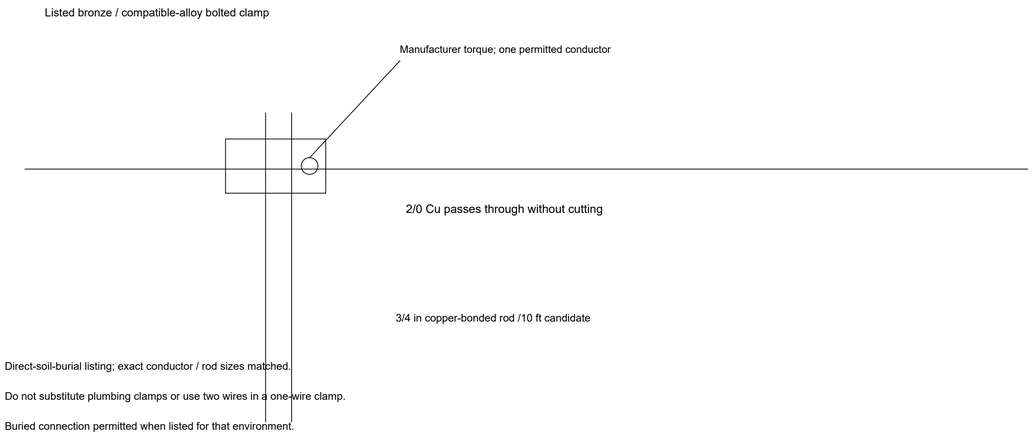
DESIGN COORDINATION / 26 SEP 2026 / K&K DATA SERVICE INC.

References: NEC2017 Article250; OEM GA08Sep2026; transformer specification R2.

KK-RD / TRANSFORMER INSTALLATION

E-307 / R2 / BOLTED AND COMPRESSION GROUNDING CONNECTIONS

G1 / ROD TO CONTINUOUS COPPER

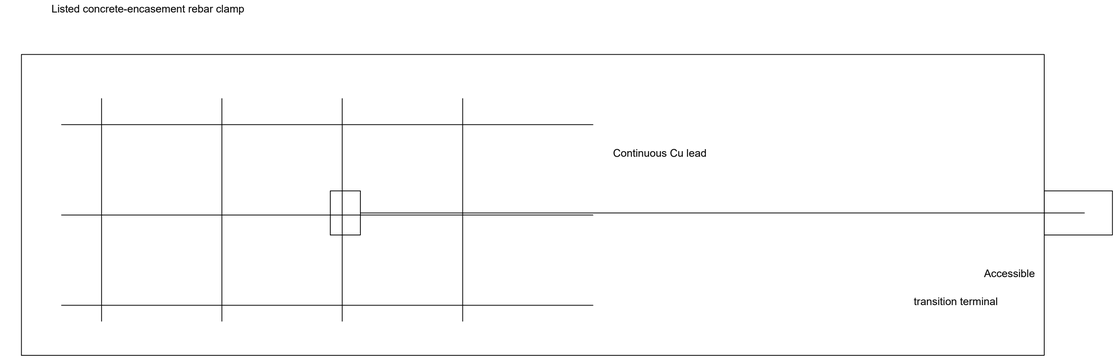


Direct-soil-burial listing; exact conductor / rod sizes matched.

Do not substitute plumbing clamps or use two wires in a one-wire clamp.

Buried connection permitted when listed for that environment.

G2 / REBAR TO COPPER / NO FIELD WELD



Maintain cover, structural bar continuity and corrosion protection.

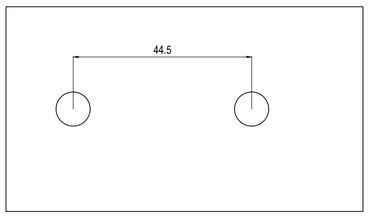
Clamp sizes shall match the actual rebar and copper conductor.

No exposed unprotected rebar tail in soil; no earth-return credit assumed.

Provide one identifiable takeoff per pier, plus four pile-head interfaces.

G4 / OEM TANK GROUND PAD

Illustration enlarged20x; physical hole pitch44.5 mm



OEM threads:1/2-13 UNC; verify engagement and bolt length.

Use listed copper-conductor lug compatible with the OEM pad.

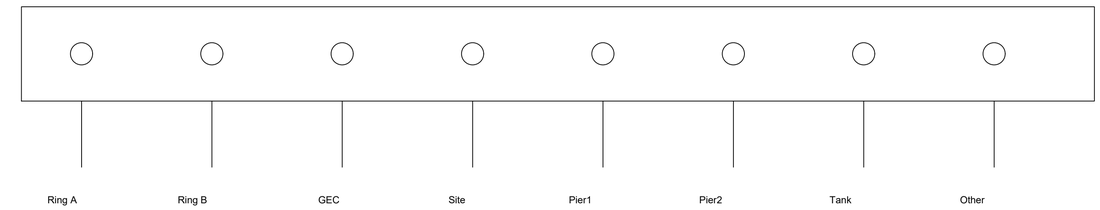
No field drilling of tank or unapproved pad modification.

Terminal bolting and pile-head structural bolting are separate details.

G3 pile bonding: use maker-approved attachment, no shaft drilling.

NEC2017:250.64(C),250.64(F)(3),250.68 and250.70. Detail geometry NTS.

G5 / ACCESSIBLE COPPER BAR



Bar >=1/4 x2 in; proposed24 in length; shown diagrammatically.

Use listed lugs; hole pattern follows terminal and tool clearances.

No routine energized disconnection of GEC / bonding leads.

G6: if wire-type GEC must be spliced, use listed irreversible

compression with matching tools. A removable bolt splice is not used.

Electrode clamps and wire-to-wire GEC splices are different functions.

DESIGN COORDINATION / 26 SEP 2026 / K&K DATA SERVICE INC.

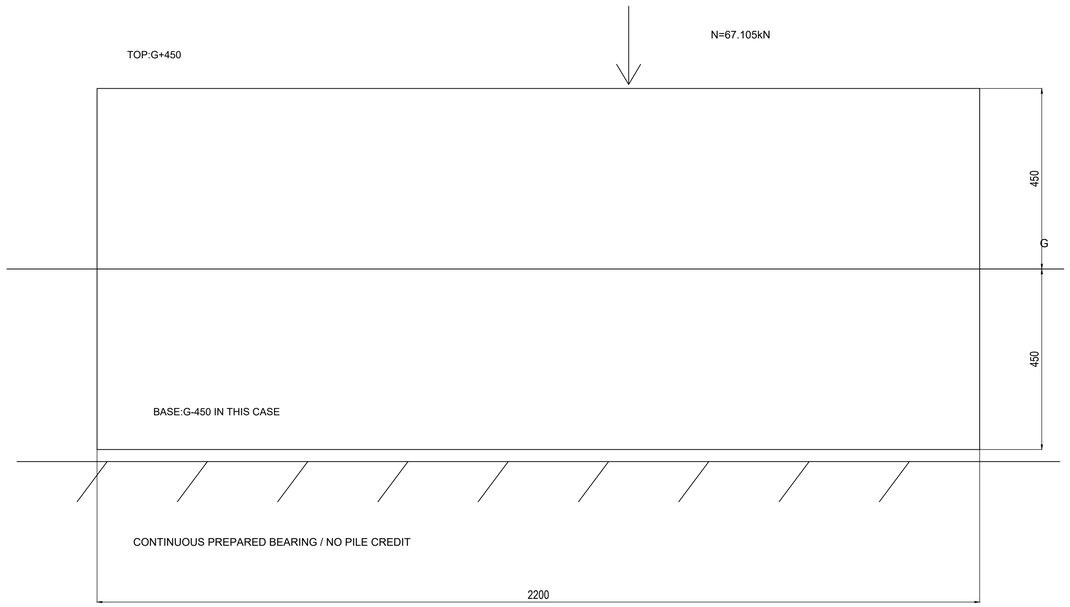
References: NEC2017 Article250; OEM GA08Sep2026; transformer specification R2.

KK-RD / TRANSFORMER INSTALLATION

E-309 / R4 / SHALLOW SOIL BEARING / SUPPLEMENTARY PILES

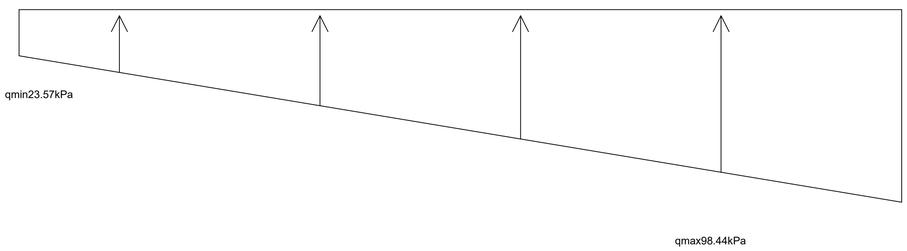
1 / PRIMARY LOAD PATH / LONGITUDINAL STUDY SECTION

Illustrated case:L2200 x B500 x H900; actual OEM supports to be located.



H450+D; D follows bearing stratum, frost and applicable embedment.

2 / BEARING PRESSURE / TOTAL RESULTANT e=225



Pressure diagram NTS; no ground tension in this example.

N=0.65 x66.685 +24 x2.2 x0.5 x0.9 =67.105kN.

q=N/(LB)=61.00kPa; qmax/min=q(1 +/-6e/L).

Soil allowable pressure must match the gross-pressure basis.

Gravity check only; verify settlement and lateral loads.

3 / WIDTH COMPARISON / L2200 / H900

WIDTH	qMAX	TWO-PIER CONCRETE
400mm	114.34kPa	1.584m3
500mm	98.44kPa	1.980m3
600mm	87.84kPa	2.376m3
700mm	80.27kPa	2.772m3

4 / FOUNDATION PERFORMANCE

Normal support:two reinforced concrete piers on prepared soil.

Four helical piles remain supplementary; no added pile count.

Normal vertical calculation takes zero pile-capacity credit.

Check soil pressure,settlement,differential movement and erosion.

Check actual rail bearing,concrete flexure/shear and anchor loads.

A grounding clamp or tied rebar is not a structural pile-head node.

5 / ECCENTRICITY AND HORIZONTAL ACTION

Full contact:6|ex|/L +6|ey|/B <=1.

B500 /ex225 leaves transverse |ey| <=32.2mm.

Use compression-only soil contact if this condition is exceeded.

Calculate each pier with its actual N,H and overturning moments.

Calculate the basewidth of each independent pier separately.

No passive-soil resistance credited where later excavation removes it.

6 / GEOMETRY AND MATERIAL CONTROL

SupporttopG+450 is separate from total concrete height.

H600:150mm embedment; verify required depth.

Both full pier widths inside base1495: gap <=1495-2B.

B500 gives495mm; B600 gives295mm before other offsets.

E312/E313 front projection350: this table does not verify transverse eccentricity.

Retain transverse HV/LV access when adjusting pier width.

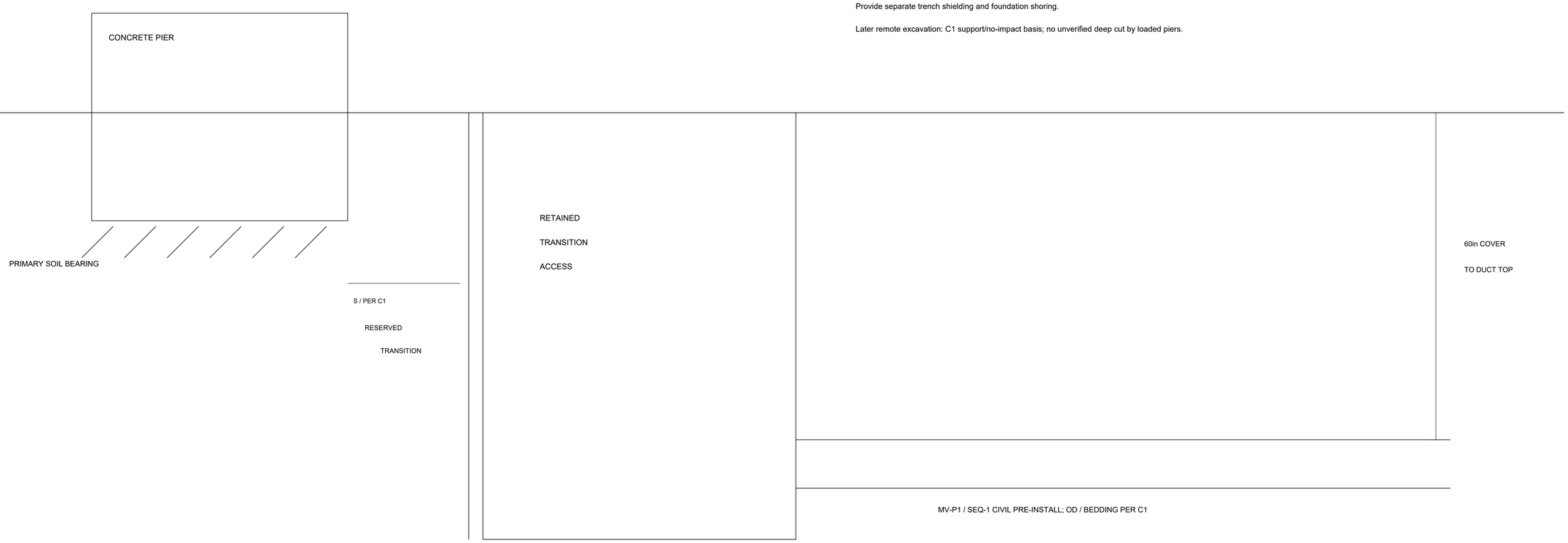
Reinforcement and anchors follow actual rail reactions,not this outline.

DESIGN DEVELOPMENT / 26 SEP 2026 / K&K DATA SERVICE INC.

E-309 shallow foundation design R4; final OEM supports and EOR verification govern set-out.

1 / SEPARATE SHALLOW ACCESS FROM DEEP MV APPROACH / SECTION NTS

MV-P1: CIVIL installs near-foundation ducts and accepts backfill BEFORE foundation loading; SEQ-1..2.



Setback S: verify soil/support; not by a45-degree line.

Deep excavation must not undermine the loaded bearing mass.

Provide separate trench shielding and foundation shoring.

Later remote excavation: C1 support/no-impact basis; no unverified deep cut by loaded piers.

2 / LOCAL LOW-VOLTAGE ACCESS / DISTINCT DEPTH

LV local recess study:G-250mm; no60in LV-depth requirement adopted.

Two trays end outside the OEM bottom opening; grouped cables turn in.

Primary supporttop remainsG+450; common indoor/outdoor datum required.

The transverse channel runs left-right across HV/LV compartments.

No pressure is transferred to the terminal enclosure or a nonstructural lid.

3 / INSTALLATION SEQUENCE / SEQ-1 TO SEQ-5

SEQ-1 Protect existing services/ring; CIVIL installs MV-P1 ducts/elbows.

SEQ-2 Inspect support/backfill; record ducts; THEN install G-X1 ring crossing.

SEQ-3 Verify bearing; four auxiliary piles, takeoffs, two piers; cure/accept.

SEQ-4 Check OEM bearing and anchors; place transformer and bond.

SEQ-5 MV crew ONE mobilisation: prove ducts, pull, terminate; final tests.

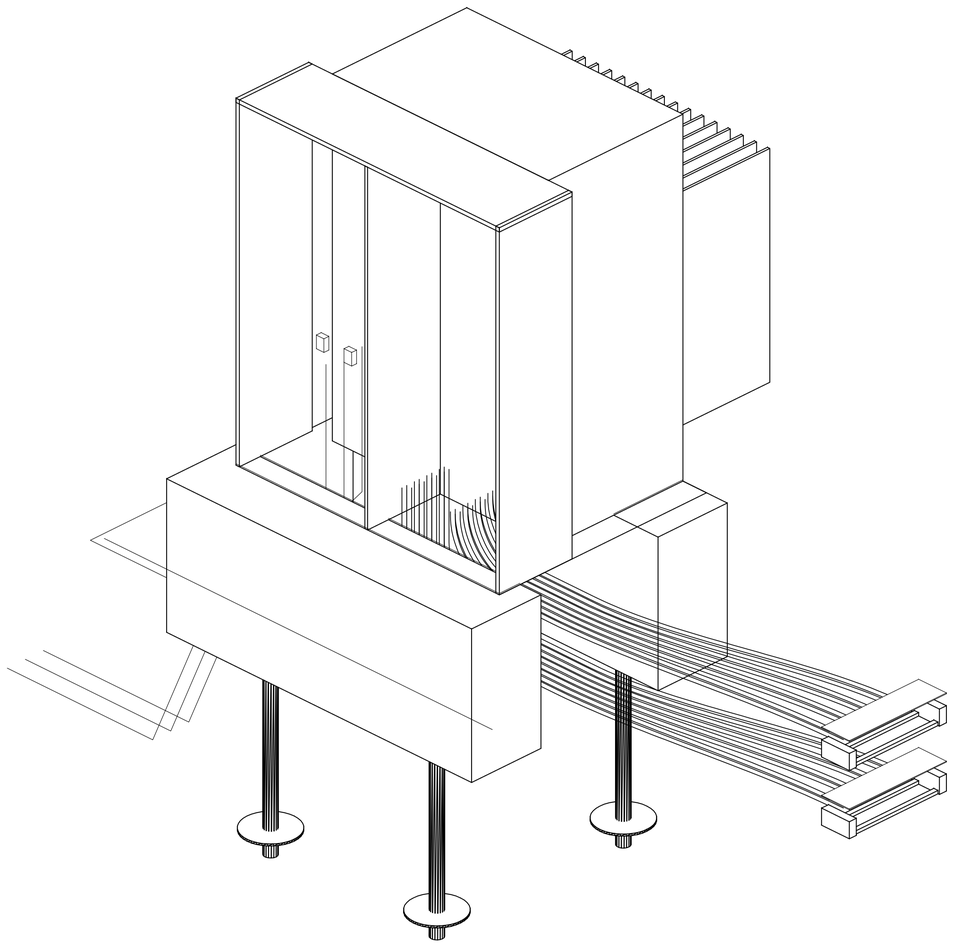
GROUNDING E306/E307: G-X1 AFTER MV backfill (SEQ-2); record levels and continuity before energising.

Source:OSHA1926.651(i); OEM GA08Sep2026; M19 Shallow Foundation R4. Shoring design required.

KK-RD / TRANSFORMER INSTALLATION

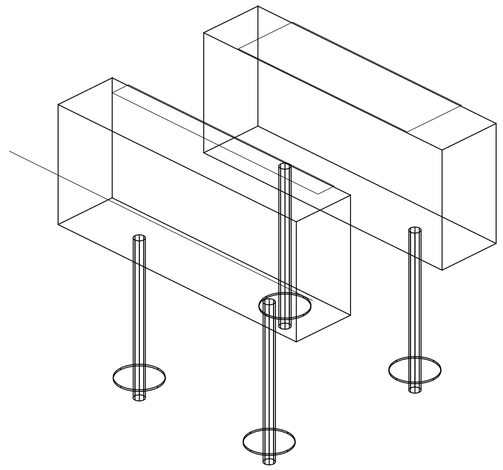
ASSEMBLY AND CIVIL WORKS / ASSEMBLED VIEWS

01 LOCAL INSTALLATION /32 CONDUCTORS TO T2



FRONT: TERMINAL DOORS / HV LEFT - LV RIGHT

02 TWO PIERS / FOUR SUPPLEMENTARY PILES



PRIMARY SUPPORT: prepared soil beneath both concrete piers. No pile capacity credited in normal bearing calculation.

SUPPLEMENTARY PILES: two per pier; shaft, helix and embedment shown schematically, not fabrication dimensions.

H1 OEM BEARING INTERFACE

Orange contact outlines are proposed interfaces only. Front terminal enclosure is not established as a load-bearing member. OEM bottom support drawing controls final pier placement.

Local study: pier top G+450; two 2200 x 500 x 900 piers; external two-tier ladder tray.
OEM GA, 08 Sep 2026: 1900W x 2220D x 2150H; mass 6800kg.
Doors/covers omitted. 32 identified route centrelines end atG650; final terminal routing: T2.

E-311 | S-C02 | 26 SEP 2026

DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10

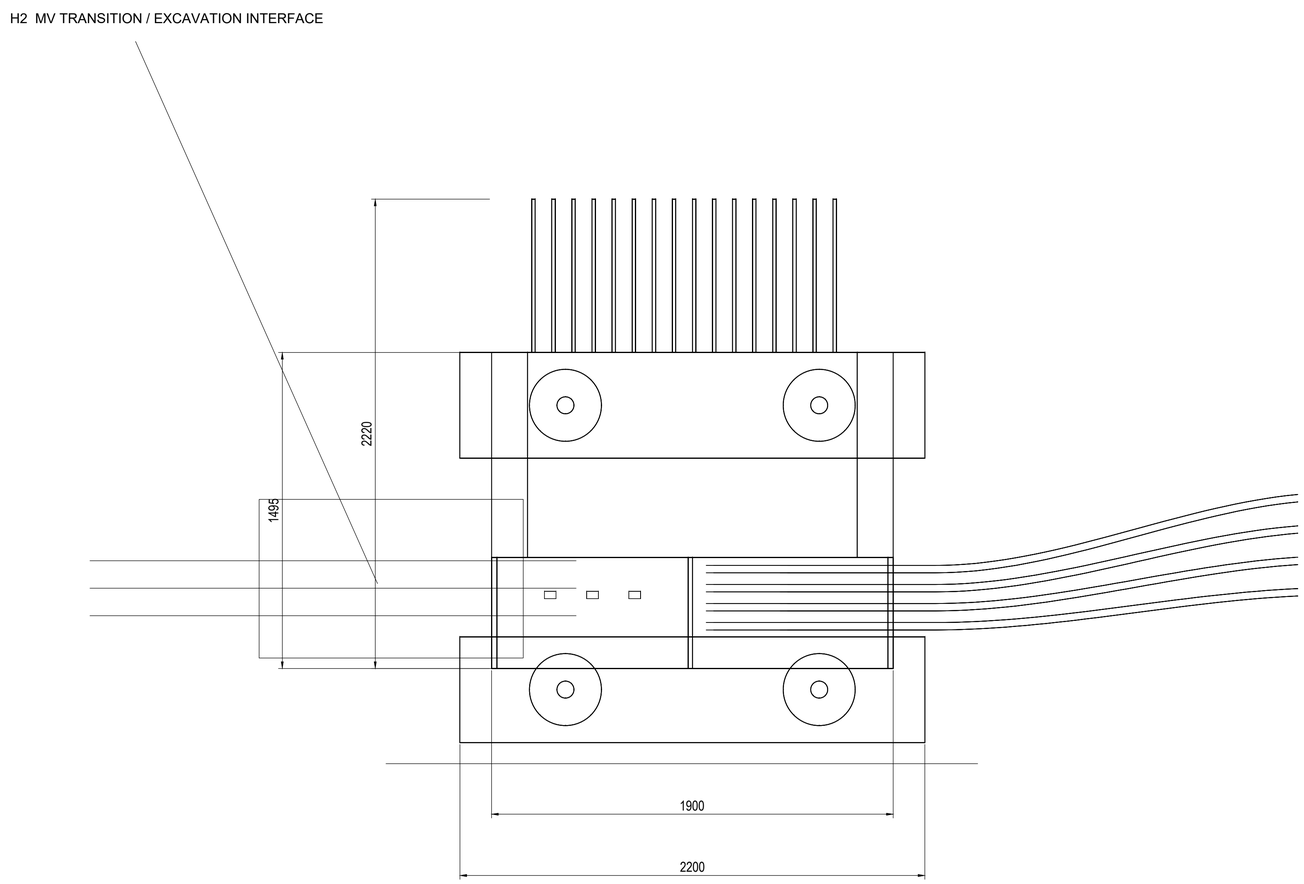
UNITS: mm A1 K&K DATA SERVICE INC.

Proposed assembly; OEM supports / final inputs govern set-out.

KK-RD / TRANSFORMER INSTALLATION

PLAN AND FRONT ELEVATION / COORDINATED ENVELOPES

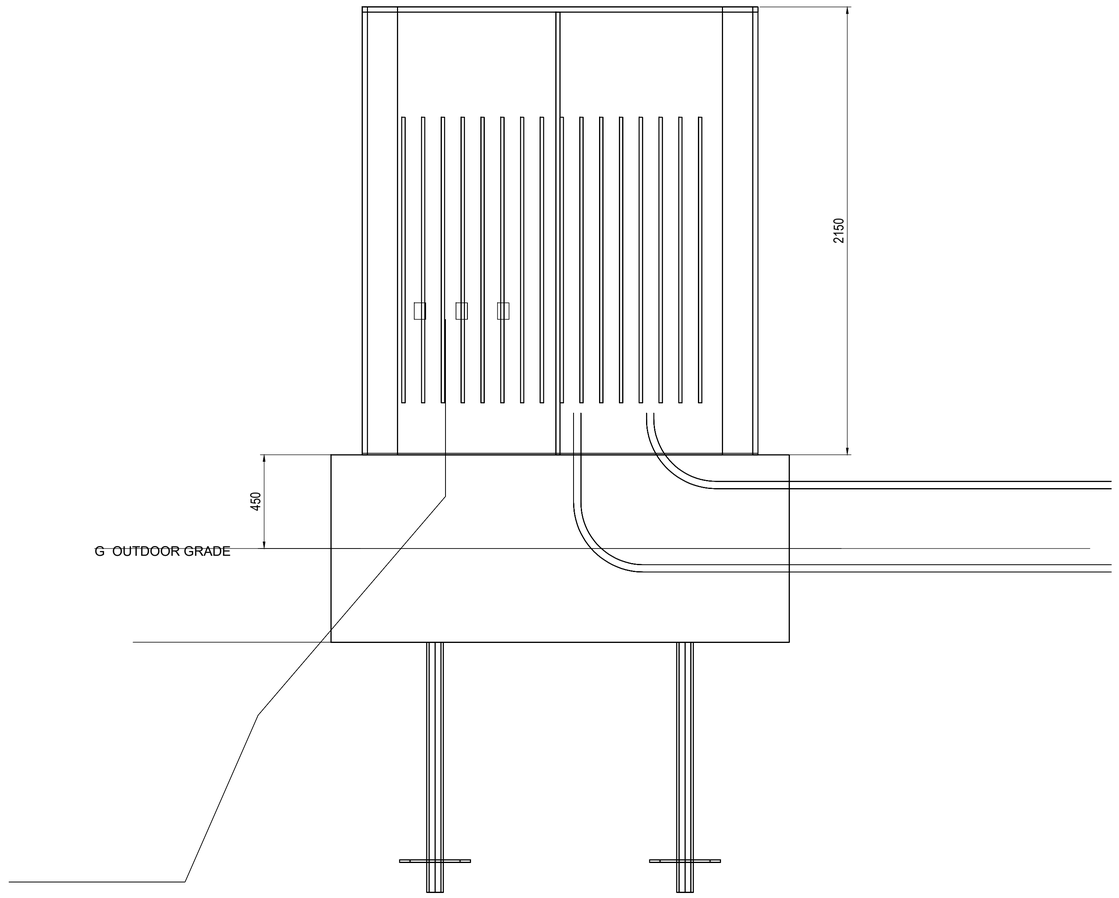
01 PLAN / FRONT AT BOTTOM



HV APPROACH

OEM width 1900; base-outline depth 1495; rear radiator envelope extends total depth to 2220. Front compartment exterior depth 525 is not a net cable aperture.

02 FRONT ELEVATION / DOORS OMITTED



STRAIGHT TRAY / TO BUILDING

Proposed piers L2200/B500; gap845 requires350 front projection; total pier extent1845.
Front overlap150 is beneath the terminal enclosure, not a verified bearing rail. OEM supports/reactions and EOR eccentric-bearing design govern set-out; OEM anchors and clear HV/LV apertures are required.

Proposed tiers:600 net /700 outer;400 pitch. Bearing G270 /G-130; covers G420..425 /G20..25. X4000 building-side stub denotes continuation. TF01 X2100..4000: proposed support assembly; S1 support detail required. See E314/E315.

E-312 | S-C02 | 26 SEP 2026

DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10

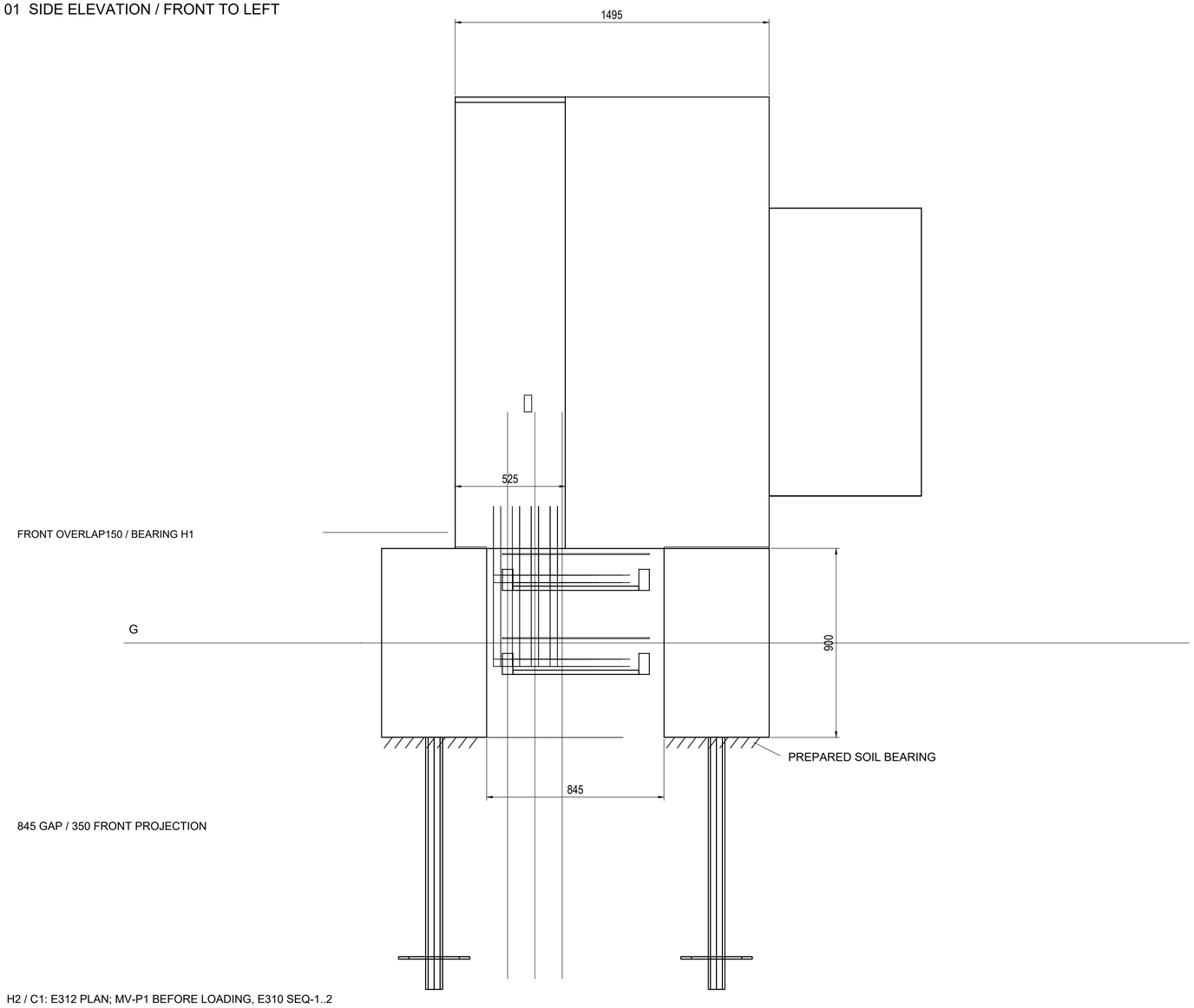
UNITS: mm A1 K&K DATA SERVICE INC.

Proposed assembly; OEM supports / final inputs govern set-out.

KK-RD / TRANSFORMER INSTALLATION

SIDE ELEVATION AND CONSTRUCTION SEQUENCE / ROUTE INTERFACES

01 SIDE ELEVATION / FRONT TO LEFT



H2 / C1: E312 PLAN; MV-P1 BEFORE LOADING, E310 SEQ-1..2

02 ELEVATION AND INTERFACE SCHEDULE

F Equipment height2150 above base.
S Base G+450; top G+2600.
S Tray bottoms G+250/G-150; bearing G+270/G-130.
S Covers G+420..425 / G+20..25; pitch400; intertier225.
S Open LV recess floor G-250;100 below lower tray.
H C1 Civil drainage outlet/slope and retention require design. No soil backfill on cables.
F Building board soffit M+1000; top M+1030.
H D1 G=outdoor grade; Delta=M-G; z_M=z_G-Delta. Survey datum and actual beams required.
See E315 for longitudinal route.

H2 / C1: PRE-INSTALL BEFORE LOADING
MV-P1 near-foundation ducts and accepted backfill are CIVIL SEQ-1..2 (E310). No later deep cut beside loaded piers without verified support/no-impact basis. Transition shoring requires verification.

T1/T2/S1 CABLE ENTRY
32 independent physical routes share E315 XYZ; endpointG650. TF01 support and OEM aperture/terminalXY remain interfaces. No ordinary side rail traverses the fan-in. Terminal geometry and tool access follow the T2 interface.

03 CONSTRUCTION SEQUENCE

A CIVIL (SEQ-1..3)
MV-P1 ducts/backfill FIRST; THEN G-X1 crossing. Verify bearing; four auxiliary piles (no normal bearing credit), takeoffs and two piers; cure/accept. Preserve transverse access. See E310.

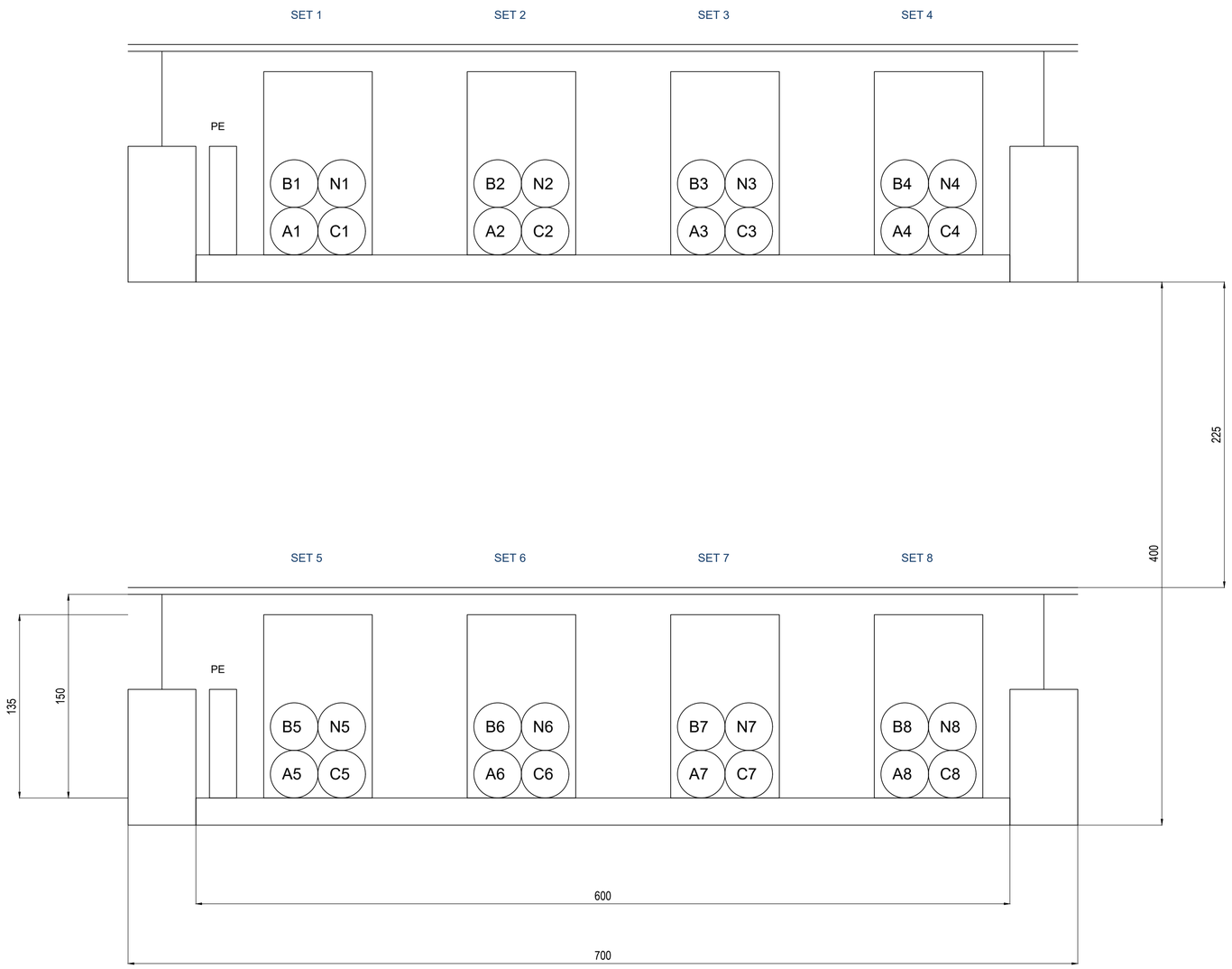
B EQUIPMENT (SEQ-4)
Accept concrete strength. Verify OEM bearing contact and anchors before placement; complete equipment bonding. Maintain both electrical work zones.

C MV / LV (SEQ-5)
MV crew ONE mobilisation: prove pre-installed ducts, pull and terminate. Remote excavation only with C1 support/no-impact basis. Complete trays, bonding, final tests and drainage.

KK-RD / TRANSFORMER BOTTOM ENTRY

E-314 / S-C02 / 1000 kcmil AL / TWO-TIER CABLE CROSS-SECTION

A-A / 32 SINGLE CONDUCTORS / TWO STRAIGHT TRAY TIERS / MODEL ENLARGEMENT 5x



600 NET / 700 OUTER; 400 TIER PITCH

UPPER SETS1-4 / LOWER SETS5-8

24 phases +8 provisional full-size neutrals.

Each conductor1000 kcmil Al; PE separate.

D35 geometry envelope; actual OD31.19 candidate.

CMP 80W x115H x58L candidate body.

135H installation reserve [S] =115+10+10.

150 clear to removable cover;15 spare.

15 clearance is NOT tool-working space.

Remove cover for clamp/bolt tool access.

Cable seats/mounting pattern: supplier interface S1.

Upper: bottom G+250 / bearing G+270 / cover G+420..425.

Lower: bottom G-150 / bearing G-130 / cover G+20..25.

225 between lower cover and upper tray bottom.

25 from upper cover top to support plane450.

Cover stops outside equipment enclosure footprint.

LV recess floor G-250;100 below tray; drainage C1.

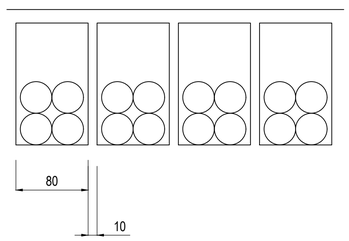
Clamp size envelope; mounting holes by OEM.

Parallel ABCN sets stay together; no cross-layer mix.

Electrical / thermal basis: project R7 W2 calculations.

Verify ampacity for actual cable installation.

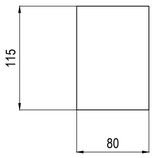
B-B / X2100 FAN-IN END / 3x / NO ORDINARY SIDE RAIL



90 CENTRES /80 ENVELOPE /10 SIDE GAP

CMP BODY80x115; DEPTH58

SIZE ENVELOPE;



SEATS / BOLTS BY SUPPLIER.

DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10 / 26 SEP 2026

Dimensions: mm; proposed assembly; OEM / final inputs govern set-out.

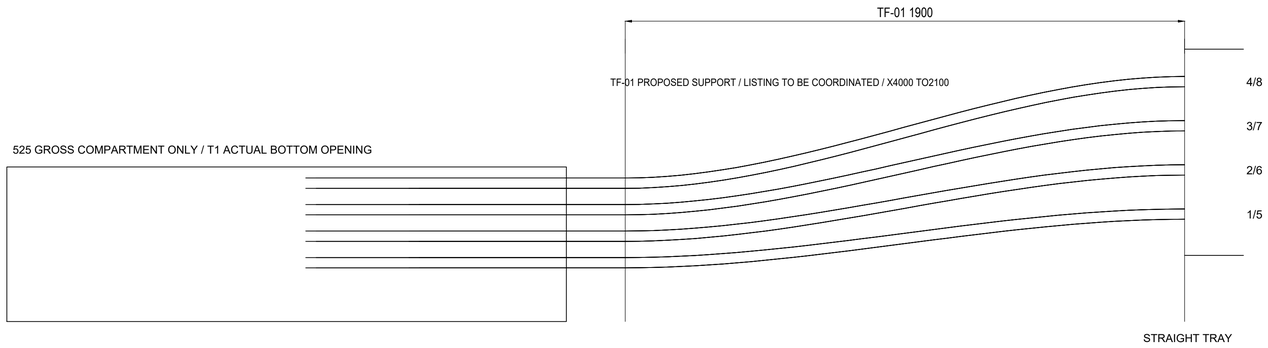
KK-RD / TRANSFORMER BOTTOM ENTRY

E-315 / S-C02 / STRAIGHT TRAY / BOTTOM-ENTRY AND CABLE-RISE ENVELOPES

G-C01 / ALL32 IDENTIFIED CONDUCTORS / COMMON XYZ / S-C02

PLAN / X0=BODY LEFT; Y0=TERMINAL COMPARTMENT FRONT / DIMENSIONS IN mm

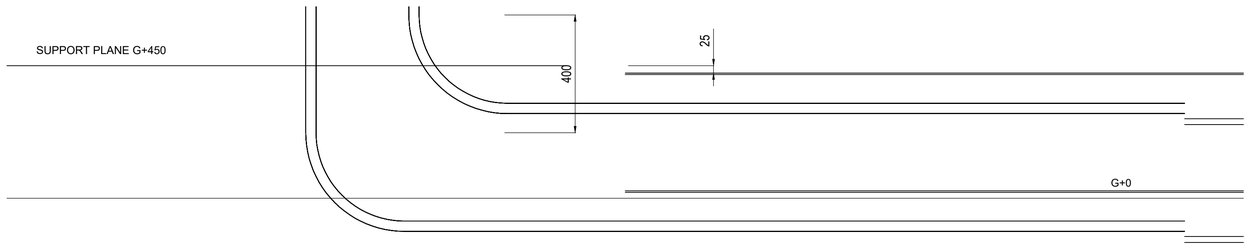
SET INDEX: UPPER / LOWER



SIDE / X-Z / SAME ROUTES / GROUND G=0

CABLE BENDS ONLY; TRAY DIRECTION REMAINS STRAIGHT

ENDS G+650; OEM TERMINAL ROUTING STARTS AT INTERFACE T2



ENTRY AND LEVEL DATUMS

32 conductors: upper sets 1-4; lower sets 5-8.

Overlapping projections: see E314 cross-sections.

TF-01: X2100-X4000; 1900 long fan-in region.

S1: support assembly and product listing to be selected.

T1: 525 gross compartment is NOT the clear bottom opening.

OEM bottom opening and base supports require coordination.

T2: drawn routes end at G+650, below actual terminals.

GA terminal heights above base: 1200 / 1403.

With base G+450: calculated levels G+1650 / G+1853.

Remaining rise: 1000 / 1203; not cable cutting lengths.

Terminal XY, access and final bends: OEM interface T2.

Upper bend radii R335 / R300; lower R335 / R300.

Tray bearing G+270 / G-130; pitch 400.

Covers stop outside transformer enclosure footprint.

Building board: underside M1000 / top M1030.

D1: Delta=M-G; z_M=z_G-Delta; survey datum and beams.

C1: open LV recess floor G-250; underside gap100.

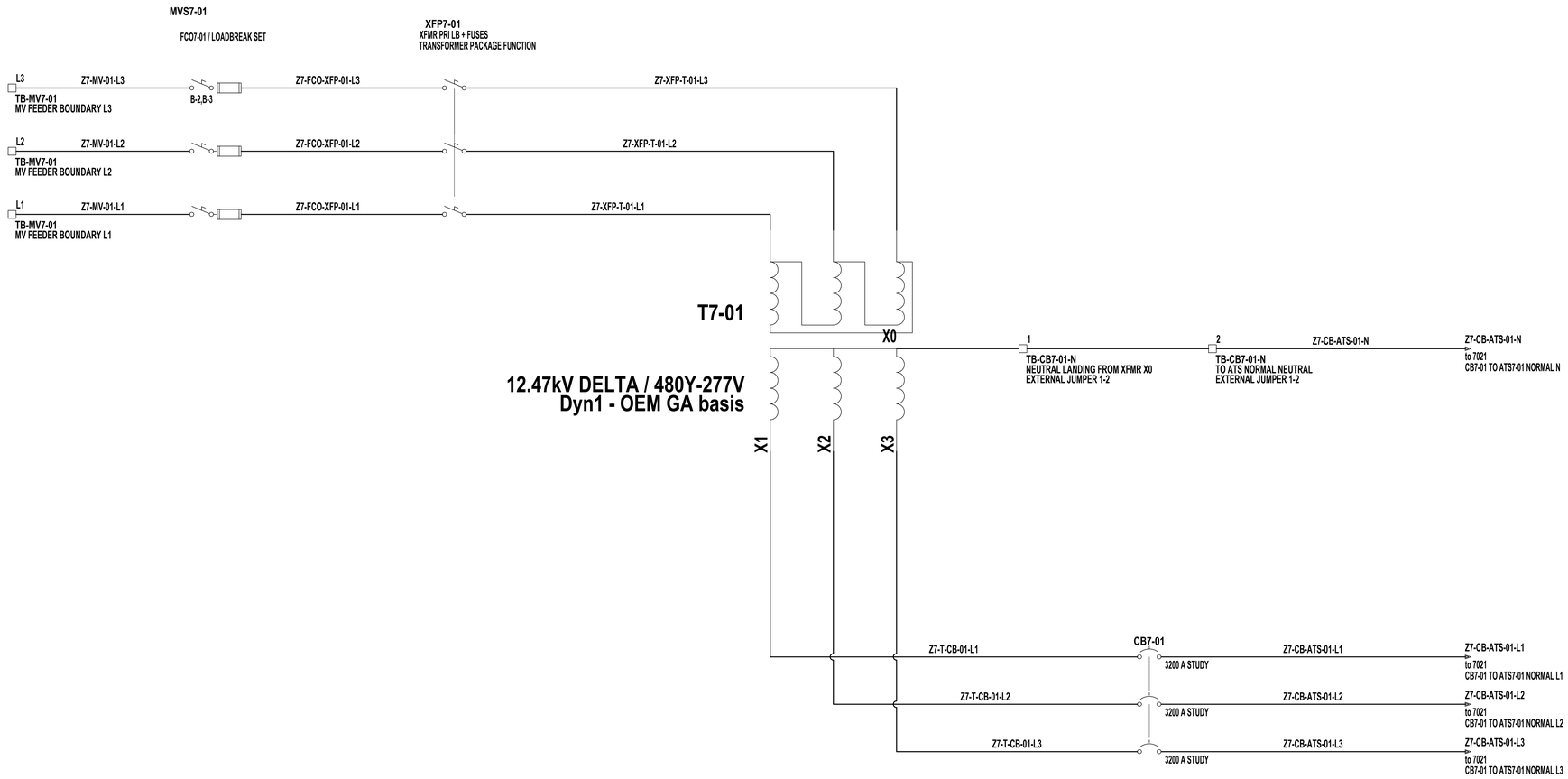
Lower bottom G-150; cover top G+25; no soil backfill.

Civil: design drainage outlet/slope and soil retention.

DESIGN DEVELOPMENT — PUBLIC EDITION P3 / 2026-10 / 26 SEP 2026

Dimensions: mm; proposed assembly; OEM / final inputs govern set-out.

TB-MV7-01 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-01 MV BRANCH TO CB7-01
FCO - XFP - T7-01 - CB7-01
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-7011

SHEET NO

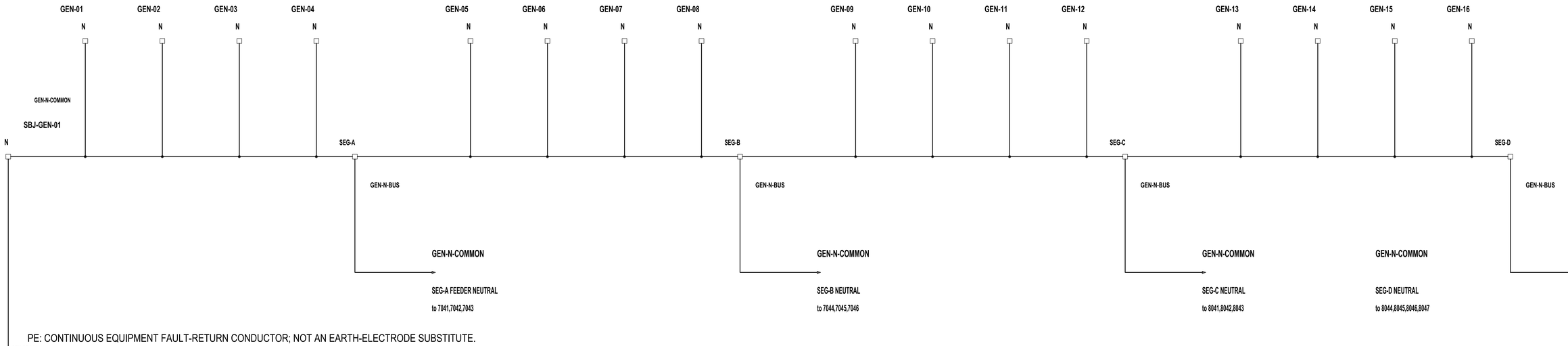
OF

CAD DWG FILE

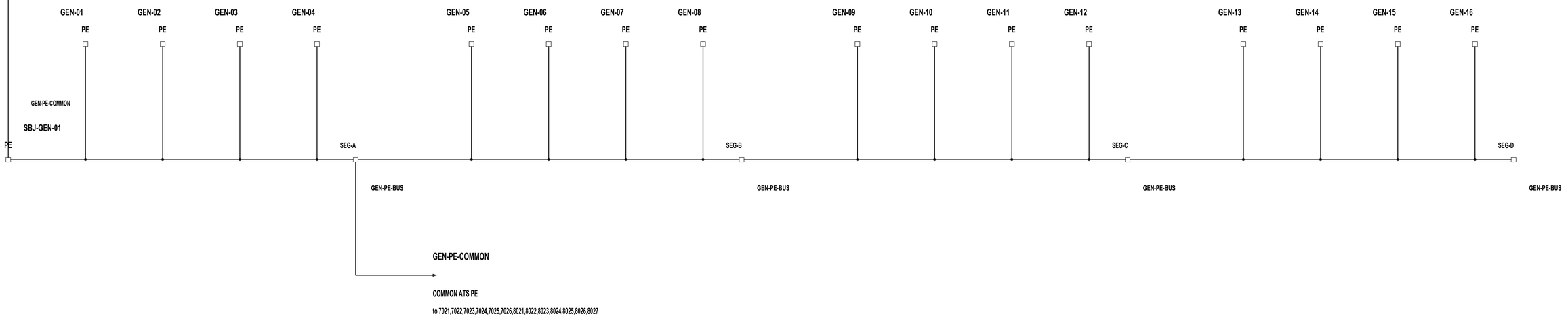
CONTINUOUS PLANT NEUTRAL / PROTECTIVE CONDUCTOR - DESIGN BASIS

GEN-01..16: DESIGN CONNECTION INTERFACES. PHASE SEGMENTS / 3P TIES REMAIN PER E203.

N: CONTINUOUS ACROSS ALL FOUR SECTIONS; NO NEUTRAL SWITCHING AT THE PHASE TIES.



PE: CONTINUOUS EQUIPMENT FAULT-RETURN CONDUCTOR; NOT AN EARTH-ELECTRODE SUBSTITUTE.



SBJ-GEN-01: SINGLE DESIGNATED N-PE BOND; NOT AN OPERATING SWITCH. WORK REQUIRES CONTROLLED ISOLATION.

GENERATOR TERMINALS AND BUS CONNECTIONS ARE EQUIPMENT INTERFACES; REFER TO PROCUREMENT SCOPE.

STUDY: CONNECTION, PROTECTION, FAULT DUTY AND MAINTENANCE ISOLATION REQUIRE VERIFICATION.

OEM ALTERNATOR SAMPLE: 2/3 PITCH. FINAL PACKAGE N/BOND CONFIGURATION REQUIRES VERIFICATION.

UPS BYPASS / BATTERY-MODE NEUTRAL REFERENCE AND OEM PACKAGE BONDING REMAIN CONDITIONAL.

REVISIONS

K&K Data IDC

PLANT NEUTRAL AND PE

FUNCTIONAL DESIGN / NOT IFC

SIZE	FSCM NO	DRAWING NUMBER	REV
		E-7061	P3
SCALE	NTS	SHEET	7061

2026-09-27

REVISIONS

SEG-A EMERGENCY FEEDER / PATH 7-01

PLANT SINGLE-LINE: E203 | GCB7-01 / ATS7-01: E7021

GENSEG-A

L1 — GENSEG-A-L1 → **GENSEG-A-L1**

SEG-A BUS L1 CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-01 LINE L1

to 7021

GENSEG-A

L2 — GENSEG-A-L2 → **GENSEG-A-L2**

SEG-A BUS L2 CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-01 LINE L2

to 7021

GENSEG-A

L3 — GENSEG-A-L3 → **GENSEG-A-L3**

SEG-A BUS L3 CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-01 LINE L3

to 7021

GENSEG-A

GEN-N-COMMON — GEN-N-COMMON — N → **GEN-N-COMMON**

PLANT N / E7061

from 7061

ATS7-01 EMERGENCY N

to 7021

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

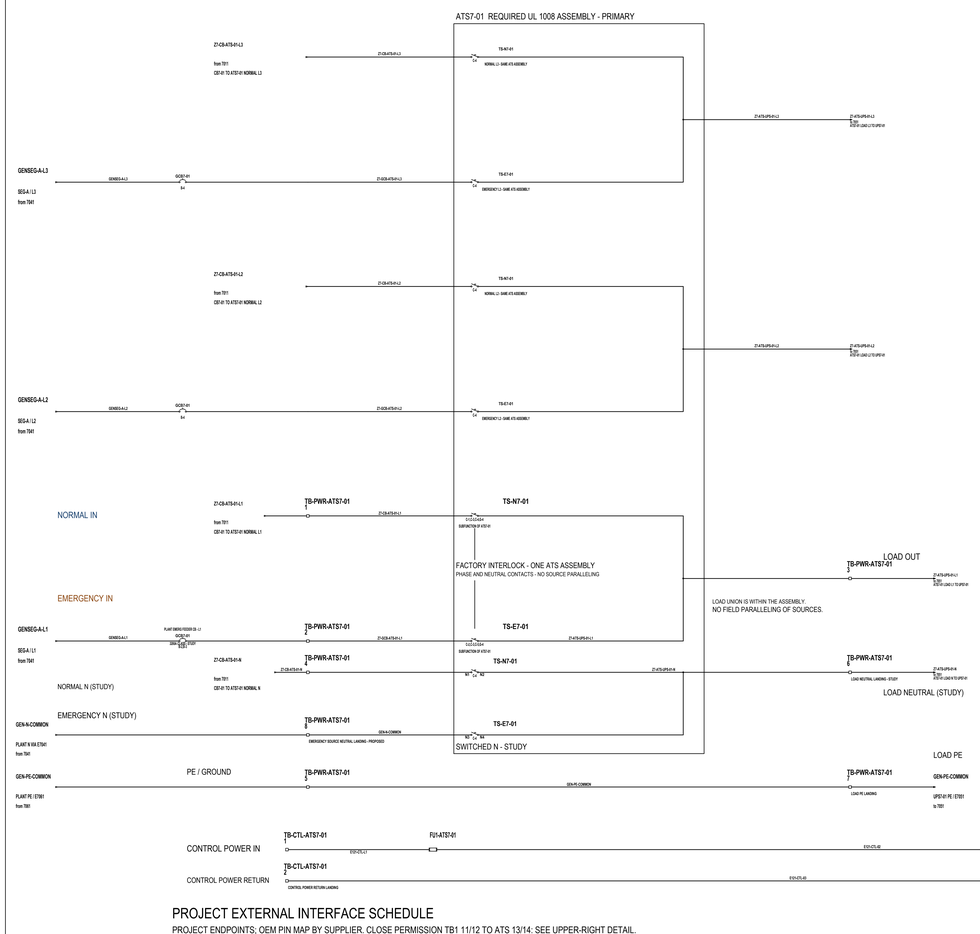
PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

2026-09-27

	K&K Data IDC
	SEG-A TO GCB7-01
	EMERGENCY FEEDER PHASE INTERFACES
SIZE	FSCM NO / DRAWING NUMBER E-7041 / REV P3
SCALE NTS	SHEET 7041

E-7021 ATS7-01 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 01 REV M28-R1 2026-09-27



ATS7-01 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS7-01 13	TB1-ATS7-01 11	Z1-SEGA-PERMIT-7-01-A	SEG-A PERMIT A from 7031
COMBINED CLOSE PERMIT A	COMBINED CLOSE PERMIT A		
TB-ATS7-01 14	TB1-ATS7-01 12	Z1-SEGA-PERMIT-7-01-B	SEG-A PERMIT B from 7031
COMBINED CLOSE PERMIT B	COMBINED CLOSE PERMIT B		

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

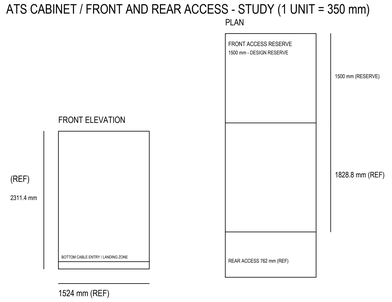
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14: SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-01 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-01 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-01 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-01. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-01, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 01
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

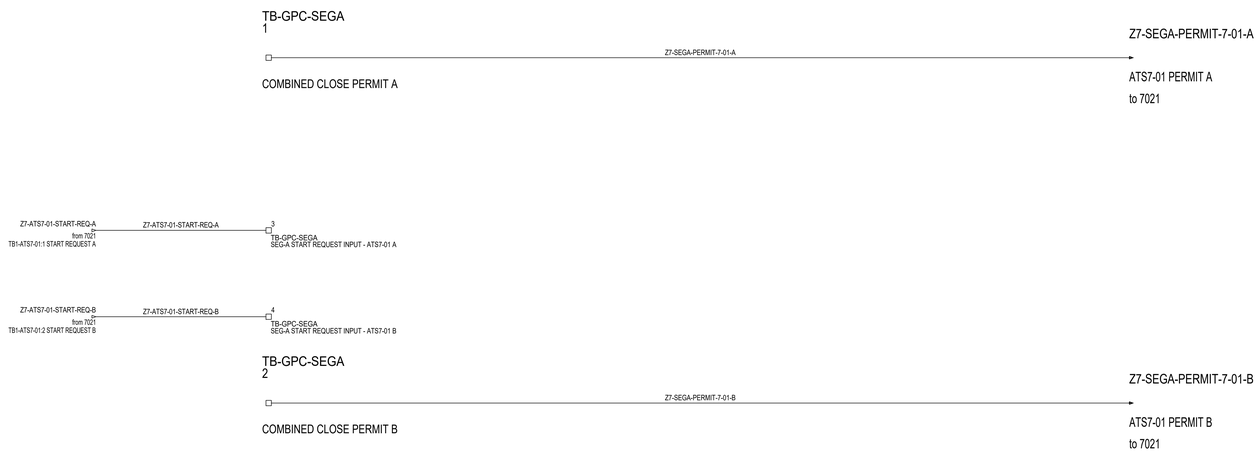
E-7031 ATS7-01 / SEG-A PLANT CONTROL INTERFACE

PATH 7-01: START TB-GPC-SEGA:3/4; CLOSE PERMISSION TB-GPC-SEGA:1/2 PER E205 M25-R1 2026-09-26

GENERATOR PLANT SEG-A TB-GPC-SEGA

CLOSE PERMISSION TO E7021

ATS TERMINALS: SEE E7021



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-01:11/12 AND TB-ATS7-01:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-01:1/2 START REQUEST IS SHOWN ON E7021.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-01 ON SEGMENT A ONLY. OTHER PATHS ARE NOT REPLICATED.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE / 3-POLE

MBP7-01
L1 T1 F-3
Z7-01-PDU-IN-L1
L2 T2
Z7-01-PDU-IN-L2
L3 T3
Z7-01-PDU-IN-L3

SSW7-01-L1
STATIC BYPASS L1
SSW7-01-L2
STATIC BYPASS L2
SSW7-01-L3
STATIC BYPASS L3
CTRL+ CTRL-

UIB7-01
UOI7-01
UPS7-01
UPS CONVERSION FUNCTION
480 V 3 PH

Z7-ATS-UPS-01-L1 from 7021 → Z7-ATS-UPS-01-L1 → Z7-01-UIB-UPS-L1 → IN-L1
Z7-ATS-UPS-01-L2 from 7021 → Z7-ATS-UPS-01-L2 → Z7-01-UIB-UPS-L2 → IN-L2
Z7-ATS-UPS-01-L3 from 7021 → Z7-ATS-UPS-01-L3 → Z7-01-UIB-UPS-L3 → IN-L3
OUT-L1 → Z7-01-UPS-UOI-L1 → Z7-01-UPS-UOI-L1
OUT-L2 → Z7-01-UPS-UOI-L2 → Z7-01-UPS-UOI-L2
OUT-L3 → Z7-01-UPS-UOI-L3 → Z7-01-UPS-UOI-L3

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE
Z7-ATS-UPS-01-N from 7021 → Z7-ATS-UPS-01-N → IN-N
DC+ DC- PE
Z7-01-UPS-PE
Z7-01-UPS-DC-P
Z7-01-UPS-DC-N
UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

BATTERY / RFQ-07
BDI7-01
DC PROTECTION - STUDY
2-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z7-01-BATT-DC-P
Z7-01-BATT-DC-N
BAT7-01
UPS7-01 BATTERY

PE-UPS7-01
MODULE PE BAR
Z7-01-PDU-PE
PE-PDU7-01
PDU7-01 PE BAR
Z7-01-ITCB-OUT-PE

GEN-PE-COMMON
GEN-PE-COMMON
ATS PE / E7021
from 7021

PDU7-01 / RFQ-16
PDU7-01 MAIN PROTECTION
3-POLE / UPS7-01 PATH
RACK FEEDER - SEE E201
3200A CLASS - STUDY
PDU7-01-Q0
Z7-01-PDU-BUS-L1
Z7-01-PDU-BUS-L2
Z7-01-PDU-BUS-L3
ITCB7-01
Z7-01-ITCB-OUT-L1
Z7-01-ITCB-OUT-L2
Z7-01-ITCB-OUT-L3
IT-OUT-7-01
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-01 1 → Z7-01-UPS-ALARM-A → TB-BMS7-01 1
ALARM LEG A

TB-UPS7-01 2 → Z7-01-UPS-ALARM-B → TB-BMS7-01 2
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-01
AUX-A C-2 AUX-B
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z7-01-MBP-CLOSED-A → 9 TB-UPS7-01 → 9 TB-BMS7-01
Z7-01-MBP-CLOSED-B → 10 TB-UPS7-01 → 10 TB-BMS7-01

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE
UPS7-01 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS7-01 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO: E-7051
SHEET NO: 0F

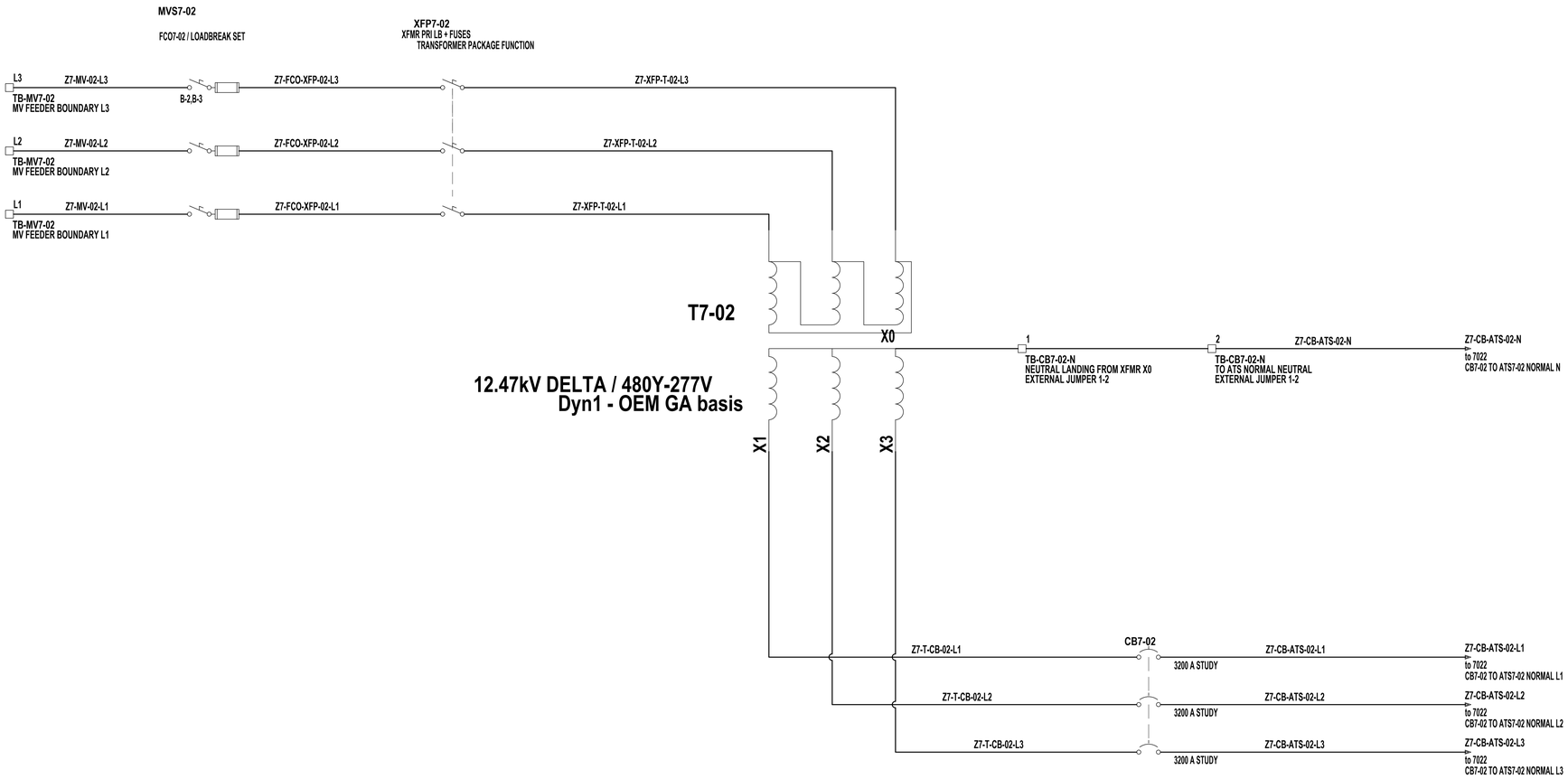
CAD DWG FILE

A | B | C | D | E | F | G

1

TB-MV7-02 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.

2



3

4

5

NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-02 MV BRANCH TO CB7-02
FCO - XFP - T7-02 - CB7-02
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO KK-RD	DRAWN BY
SCALE No Scale	DATE 2026-09-27

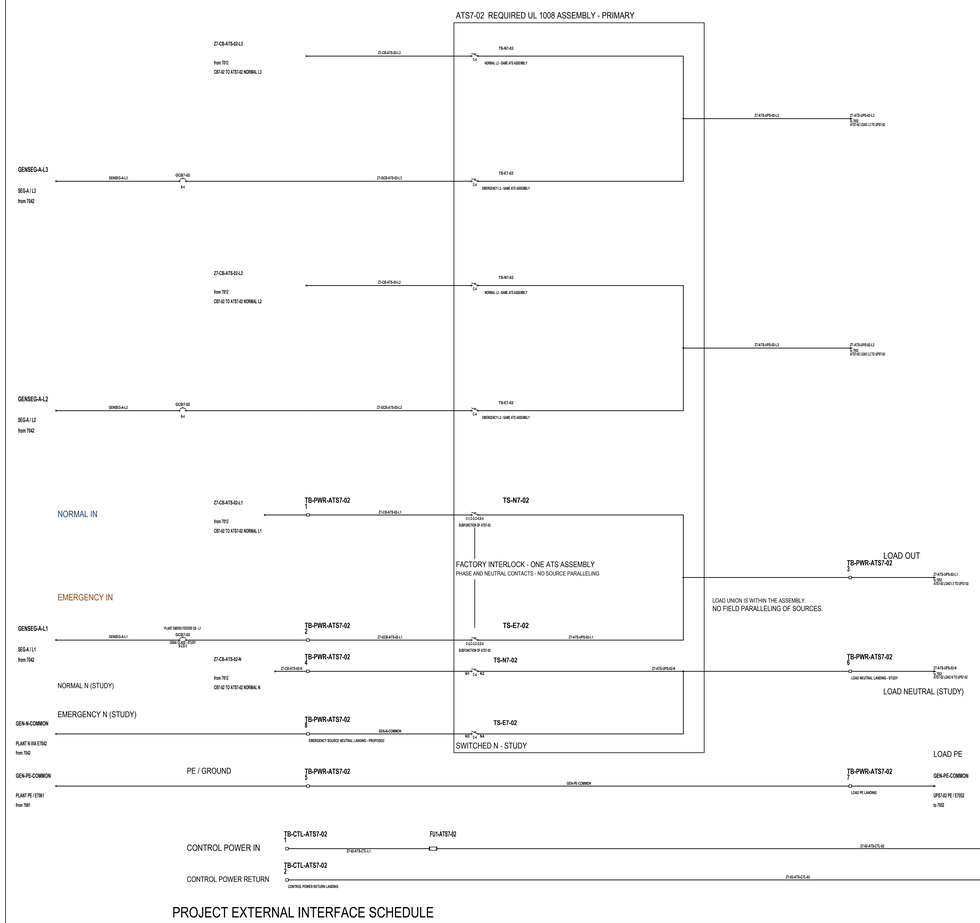
DWG NO
E-7012

SHEET NO
OF

CAD DWG FILE

E-7022 ATS7-02 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 02 REV M27-R1 2026-09-27



ATS7-02 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS7-02 13	TB1-ATS7-02 11	Z1-SEGA-PERMIT-7-02-A	SEG-A PERMIT A from 7022
COMBINED CLOSE PERMIT A	COMBINED CLOSE PERMIT A	Z1-SEGA-PERMIT-7-02-A	
TB-ATS7-02 14	TB1-ATS7-02 12	Z1-SEGA-PERMIT-7-02-B	SEG-A PERMIT B from 7022
COMBINED CLOSE PERMIT B	COMBINED CLOSE PERMIT B	Z1-SEGA-PERMIT-7-02-B	

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

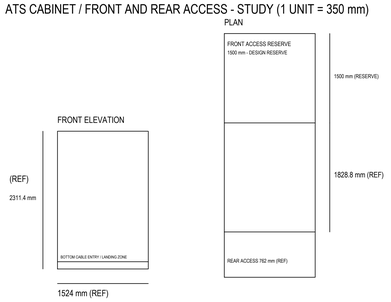
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-02 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-02 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-02 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-02. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-02, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 02
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M27-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

E-7032 ATS7-02 / SEG-A PLANT CONTROL INTERFACE

PATH 7-02: START TB-GPC-SEGA:7/8; CLOSE PERMISSION TB-GPC-SEGA:5/6 PER E205 M27-R1 2026-09-27

GENERATOR PLANT SEG-A TB-GPC-SEGA

CLOSE PERMISSION TO E7022

ATS TERMINALS: SEE E7022



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-02:11/12 AND TB-ATS7-02:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-02:1/2 START REQUEST IS SHOWN ON E7022.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-02 ON SEGMENT A ONLY. PATH 7-01 CONTROL INTERFACE: E7031.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

SEG-A EMERGENCY FEEDER / PATH 7-02

PLANT SINGLE-LINE: E203 | GCB7-02 / ATS7-02: E7022

REVISIONS

	P3			

GEN-FDR7-02

L1 → GENSEG-A-L1 → **GENSEG-A-L1**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-02 LINE L1

to 7022

GEN-FDR7-02

L2 → GENSEG-A-L2 → **GENSEG-A-L2**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-02 LINE L2

to 7022

GEN-FDR7-02

L3 → GENSEG-A-L3 → **GENSEG-A-L3**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-02 LINE L3

to 7022

GEN-FDR7-02

GEN-N-COMMON → GEN-N-COMMON → N → **GEN-N-COMMON**

PLANT N / E7061

from 7061

ATS7-02 EMERGENCY N

to 7022

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

K&K Data IDC

SEG-A TO GCB7-02

EMERGENCY FEEDER PHASE INTERFACES

SIZE	FSCM NO	DRAWING NUMBER	REV
		E-7042	P3
SCALE	NTS	SHEET	7042

2026-09-27

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP7-02
L1 T1 F-3 Z7-02-PDU-IN-L1
L2 T2 Z7-02-PDU-IN-L2
L3 T3 Z7-02-PDU-IN-L3

SSW7-02-L1 STATIC BYPASS L1 — CTRL+ CTRL-
SSW7-02-L2 STATIC BYPASS L2 — CTRL+ CTRL-
SSW7-02-L3 STATIC BYPASS L3 — CTRL+ CTRL-

Z7-ATS-UPS-02-L1 from 7022 — Z7-ATS-UPS-02-L1 — UIB7-02 L1 T1 — Z7-02-UIB-UPS-L1 — IN-L1
Z7-ATS-UPS-02-L2 from 7022 — Z7-ATS-UPS-02-L2 — L2 T2 — Z7-02-UIB-UPS-L2 — IN-L2
Z7-ATS-UPS-02-L3 from 7022 — Z7-ATS-UPS-02-L3 — L3 T3 — Z7-02-UIB-UPS-L3 — IN-L3
Z7-ATS-UPS-02-N from 7022 — Z7-ATS-UPS-02-N — IN-N

UPS7-02
UPS CONVERSION FUNCTION
480 V 3 PH
DC+ DC- PE

OUT-L1 — Z7-02-UPS-UOI-L1 — UOIT-02 L1 T1
OUT-L2 — Z7-02-UPS-UOI-L2 — L2 T2
OUT-L3 — Z7-02-UPS-UOI-L3 — L3 T3

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z7-02-UPS-PE
Z7-02-UPS-DC-P
Z7-02-UPS-DC-N

BATTERY / RFQ-07

BDIT-02 — DC PROTECTION - STUDY — 3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z7-02-BATT-DC-P
Z7-02-BATT-DC-N
BATT-02 — UPS7-02 BATTERY

PE-UPS7-02 — MODULE PE BAR
Z7-02-PDU-PE
PE-PDU7-02 — PDU7-02 PE BAR
Z7-02-ITCB-OUT-PE

GEN-PE-COMMON
ATS PE / E7022
from 7022

PDU7-02 / RFQ-16

PDU7-02 MAIN PROTECTION
3-POLE / UPS7-02 PATH

RACK FEEDER - SEE E201
3200A CLASS - STUDY

PDU7-02-Q0 L1 T1 — Z7-02-PDU-BUS-L1 — ITCB7-02 L1 T1 — Z7-02-ITCB-OUT-L1 — IT-OUT-7-02 L1
L2 T2 — Z7-02-PDU-BUS-L2 — L2 T2 — Z7-02-ITCB-OUT-L2 — L2
L3 T3 — Z7-02-PDU-BUS-L3 — L3 T3 — Z7-02-ITCB-OUT-L3 — L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-02 1 — ALARM LEG A — Z7-02-UPS-ALARM-A — TB-BMS7-02 1 — ALARM LEG A
TB-UPS7-02 2 — ALARM LEG B — Z7-02-UPS-ALARM-B — TB-BMS7-02 2 — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-02
AUX-A C-2 AUX-B — MBP CLOSED INDICATION — AUX CONTACT - STUDY
Z7-02-MBP-CLOSED-A — 9 TB-UPS7-02 — 9 TB-BMS7-02
Z7-02-MBP-CLOSED-B — 10 TB-UPS7-02 — 10 TB-BMS7-02

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS7-02 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS7-02 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27
DWG NO: E-7052	
SHEET NO: 0F	

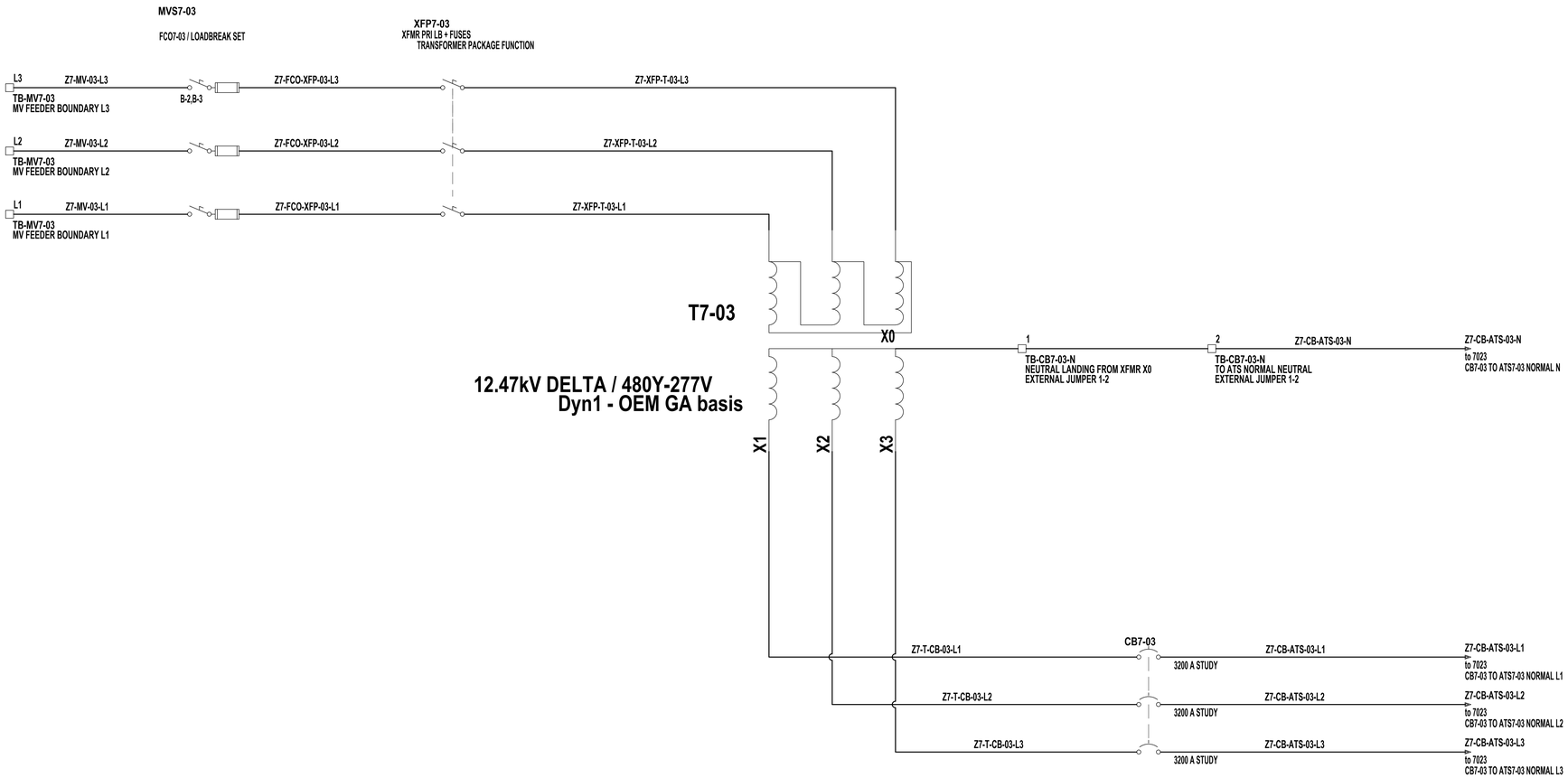
CAD DWG FILE

A | B | C | D | E | F | G

1

TB-MV7-03 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.

2



3

4

5

NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-03 MV BRANCH TO CB7-03
FCO - XFP - T7-03 - CB7-03
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

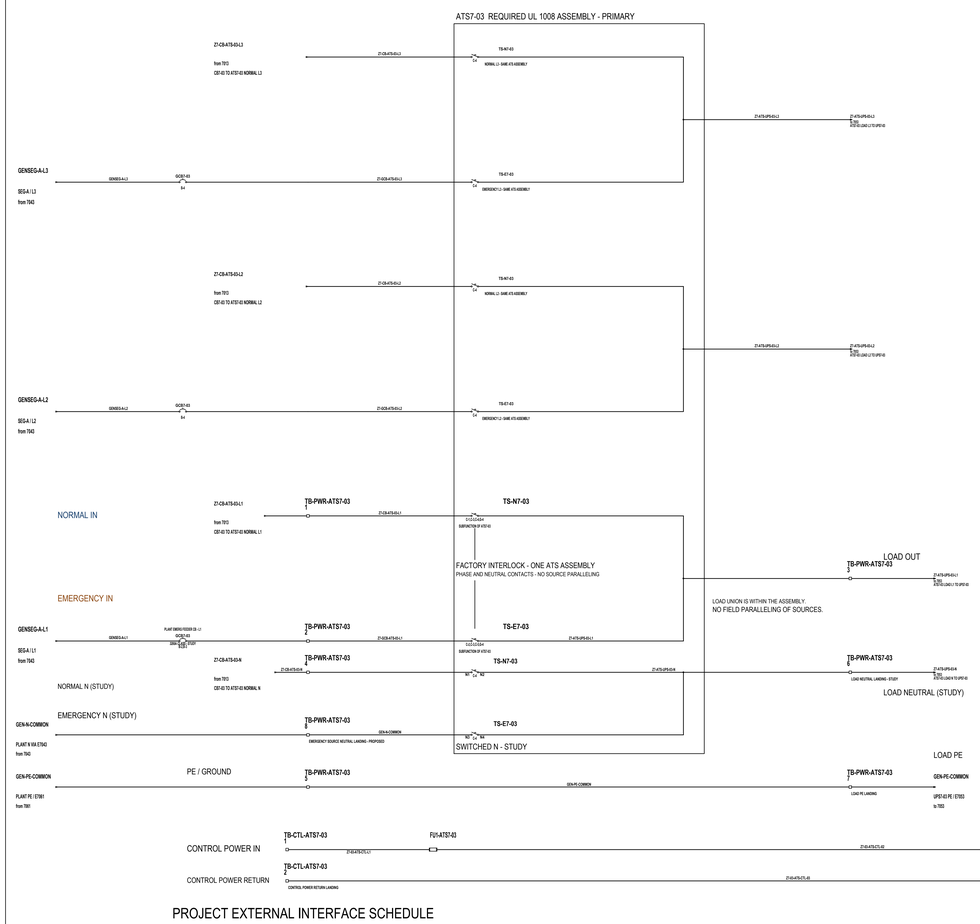
DWG NO
E-7013

SHEET NO
OF

CAD DWG FILE

E-7023 ATS7-03 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 03 REV M28-R1 2026-09-27



ATS7-03 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS7-03 13	TB1-ATS7-03 11	Z1-SEGA-PERMIT-7-03-A	SEG-A PERMIT A from 7033
COMBINED CLOSE PERMIT A	COMBINED CLOSE PERMIT A	Z1-SEGA-PERMIT-7-03-A	
TB-ATS7-03 14	TB1-ATS7-03 12	Z1-SEGA-PERMIT-7-03-B	SEG-A PERMIT B from 7033
COMBINED CLOSE PERMIT B	COMBINED CLOSE PERMIT B	Z1-SEGA-PERMIT-7-03-B	

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

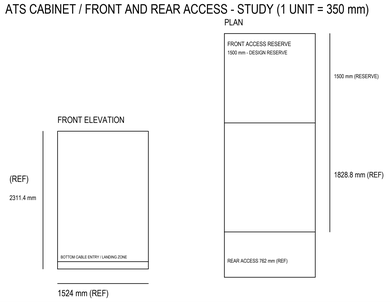
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-03 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-03 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-03 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-03. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-03, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 03
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

E-7033 ATS7-03 / SEG-A PLANT CONTROL INTERFACE

PATH 7-03: START TB-GPC-SEGA:11/12; CLOSE PERMISSION TB-GPC-SEGA:9/10 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-A TB-GPC-SEGA

CLOSE PERMISSION TO E7023

ATS TERMINALS: SEE E7023



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-03:11/12 AND TB-ATS7-03:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-03:1/2 START REQUEST IS SHOWN ON E7023.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-03 ON SEGMENT A ONLY. PATH 7-01 CONTROL INTERFACE: E7031.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS			
	P3		

SEG-A EMERGENCY FEEDER / PATH 7-03

PLANT SINGLE-LINE: E203 | GCB7-03 / ATS7-03: E7023

GEN-FDR7-03

L1 — GENSEG-A-L1 → **GENSEG-A-L1**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-03 LINE L1

to 7023

GEN-FDR7-03

L2 — GENSEG-A-L2 → **GENSEG-A-L2**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-03 LINE L2

to 7023

GEN-FDR7-03

L3 — GENSEG-A-L3 → **GENSEG-A-L3**

SEG-A FEEDER CONNECTION

SEG-A SWITCHGEAR POWER LANDING

GCB7-03 LINE L3

to 7023

GEN-FDR7-03

GEN-N-COMMON — GEN-N-COMMON — N → **GEN-N-COMMON**

PLANT N / E7061

from 7061

ATS7-03 EMERGENCY N

to 7023

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC
	SEG-A TO GCB7-03
	EMERGENCY FEEDER PHASE INTERFACES
SIZE	FSCM NO / DRAWING NUMBER E-7043 / REV P3
SCALE NTS	SHEET 7043

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP7-03
L1 T1 F-3
Z7-03-PDU-IN-L1
L2 T2
Z7-03-PDU-IN-L2
L3 T3
Z7-03-PDU-IN-L3

CTRL+ CTRL-
SSW7-03-L1
STATIC BYPASS L1
SSW7-03-L2
STATIC BYPASS L2
SSW7-03-L3
STATIC BYPASS L3

UPS7-03
UPS CONVERSION FUNCTION
480 V 3 PH

Z7-ATS-UPS-03-L1 from 7023 — Z7-ATS-UPS-03-L1 — UIB7-03 L1 T1 — Z7-03-UIB-UPS-L1 — IN-L1
Z7-ATS-UPS-03-L2 from 7023 — Z7-ATS-UPS-03-L2 — UIB7-03 L2 T2 — Z7-03-UIB-UPS-L2 — IN-L2
Z7-ATS-UPS-03-L3 from 7023 — Z7-ATS-UPS-03-L3 — UIB7-03 L3 T3 — Z7-03-UIB-UPS-L3 — IN-L3
IN-N
Z7-ATS-UPS-03-N from 7023 — Z7-ATS-UPS-03-N

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

DC+ DC- PE
Z7-03-UPS-DC-P
Z7-03-UPS-DC-N
Z7-03-UPS-PE

OUT-L1 — Z7-03-UPS-UOI-L1 — UOI7-03 L1 T1
OUT-L2 — Z7-03-UPS-UOI-L2 — UOI7-03 L2 T2
OUT-L3 — Z7-03-UPS-UOI-L3 — UOI7-03 L3 T3

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

BATTERY / RFQ-07

BDIT-03
DC PROTECTION - STUDY
3-POLE STUDY | BATTERY PACKAGE
U+ U- B+ B-
Z7-03-BATT-DC-P
Z7-03-BATT-DC-N
BAT7-03
UPS7-03 BATTERY

GEN-PE-COMMON
ATS PE / E7023
from 7023
GEN-PE-COMMON

PE-UPS7-03
MODULE PE BAR
Z7-03-PDU-PE
PE-PDU7-03
PDU7-03 PE BAR
Z7-03-ITCB-OUT-PE

PDU7-03 / RFQ-16

PDU7-03 MAIN PROTECTION
3-POLE / UPS7-03 PATH

RACK FEEDER - SEE E201
3200A CLASS - STUDY

PDU7-03-Q0 L1 T1 — Z7-03-PDU-BUS-L1 — ITCB7-03 L1 T1 — Z7-03-ITCB-OUT-L1 — IT-OUT-7-03 L1
PDU7-03-Q0 L2 T2 — Z7-03-PDU-BUS-L2 — ITCB7-03 L2 T2 — Z7-03-ITCB-OUT-L2 — L2
PDU7-03-Q0 L3 T3 — Z7-03-PDU-BUS-L3 — ITCB7-03 L3 T3 — Z7-03-ITCB-OUT-L3 — L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-03 1 — Z7-03-UPS-ALARM-A — TB-BMS7-03 1
ALARM LEG A — ALARM LEG A

TB-UPS7-03 2 — Z7-03-UPS-ALARM-B — TB-BMS7-03 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-03
AUX-A C-2 AUX-B — Z7-03-MBP-CLOSED-A — 9 TB-UPS7-03 — 9 TB-BMS7-03
MBP CLOSED INDICATION
AUX CONTACT - STUDY

Z7-03-MBP-CLOSED-B — 10 TB-UPS7-03 — 10 TB-BMS7-03

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

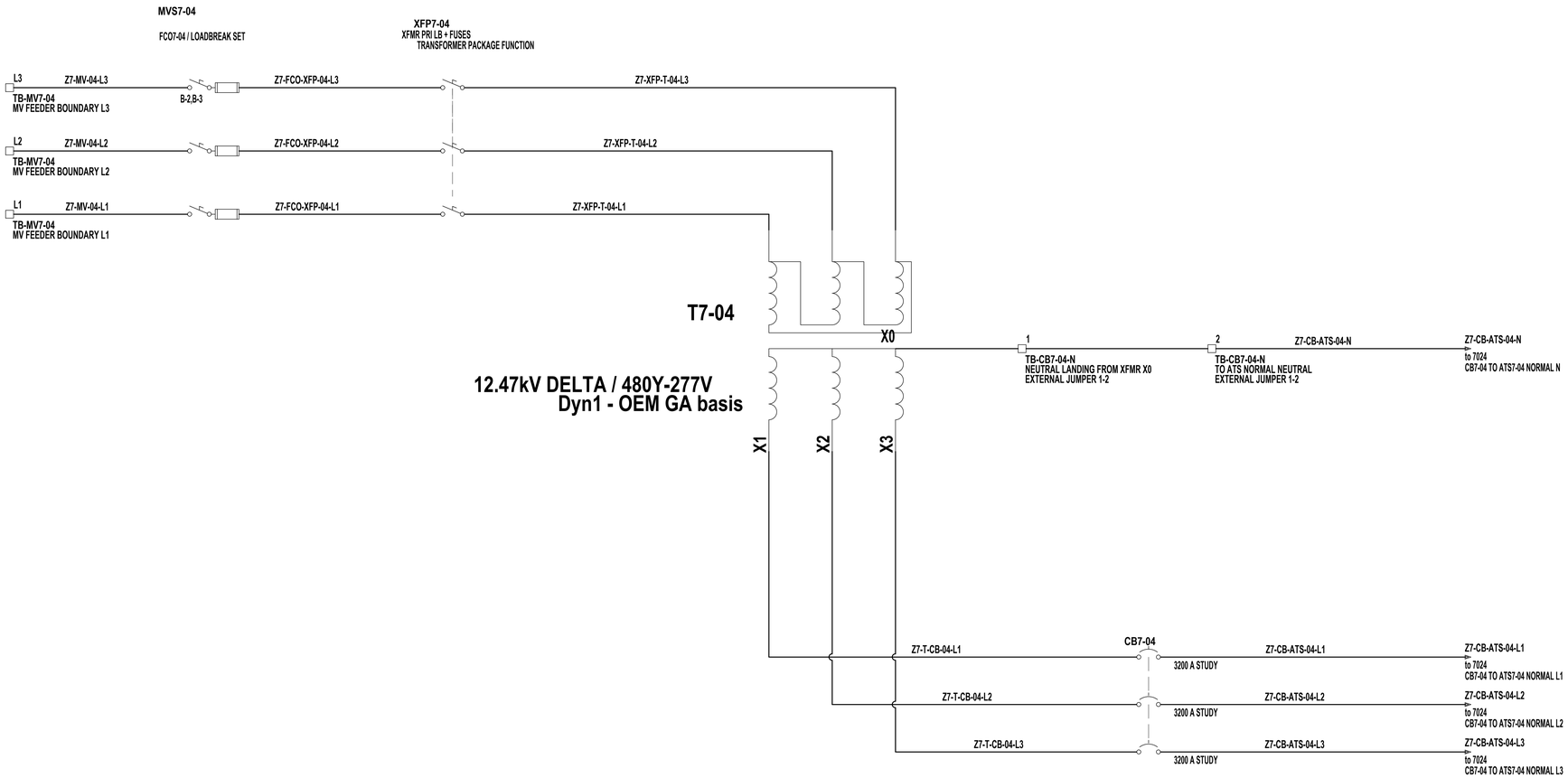
DWG TITLE

UPS7-03 / BYPASS AND PDU INTERFACES ENGINEERING STUDY
UPS7-03 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27
DWG NO: *E-7053*	
SHEET NO: *0F*	

CAD DWG FILE

TB-MV7-04 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-04 MV BRANCH TO CB7-04
FCO - XFP - T7-04 - CB7-04
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO KK-RD	DRAWN BY
SCALE No Scale	DATE 2026-09-27

DWG NO

E-7014

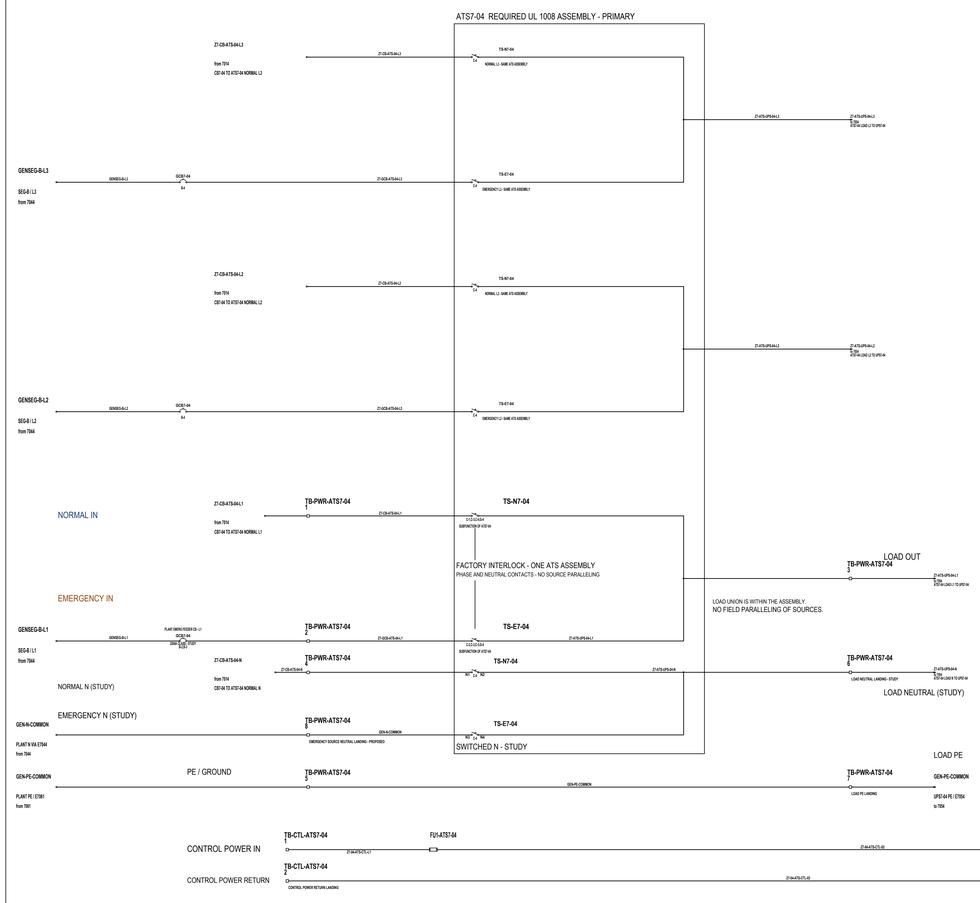
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OF

CAD DWG FILE

E-7024 ATS7-04 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 04 REV M28-R1 2026-09-27



PROJECT EXTERNAL INTERFACE SCHEDULE

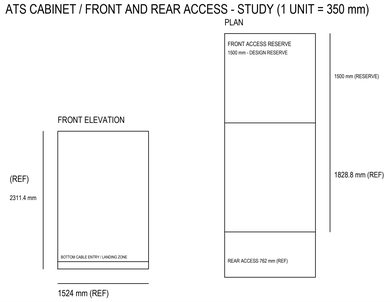
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-04 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-04 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-04 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-04. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-04, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 04
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

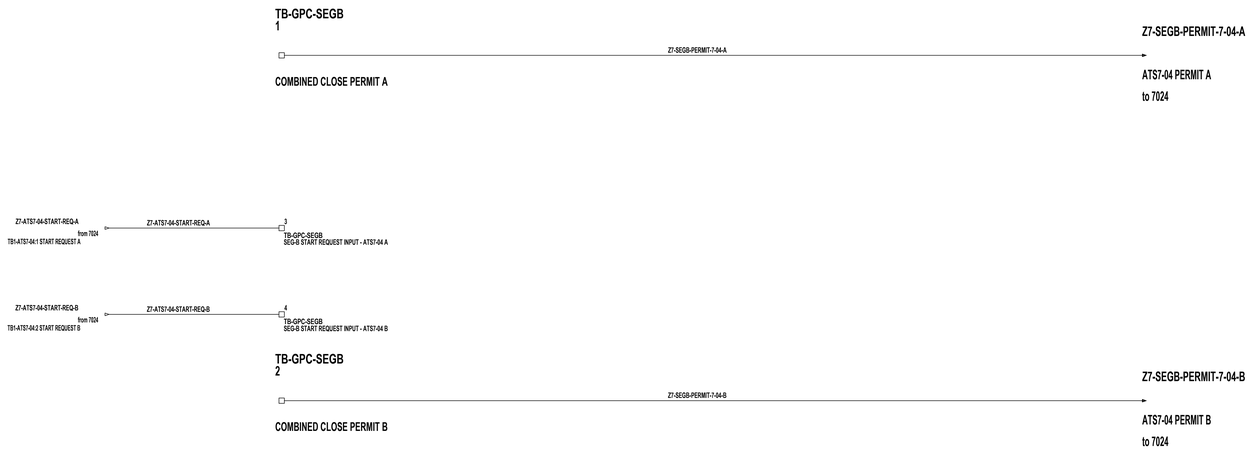
E-7034 ATS7-04 / SEG-B PLANT CONTROL INTERFACE

PATH 7-04: START TB-GPC-SEGB:3/4; CLOSE PERMISSION TB-GPC-SEGB:1/2 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-B TB-GPC-SEGB

CLOSE PERMISSION TO E7024

ATS TERMINALS: SEE E7024



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-04:11/12 AND TB-ATS7-04:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-04:1/2 START REQUEST IS SHOWN ON E7024.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-04 ON SEG-B ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-B EMERGENCY FEEDER / PATH 7-04

PLANT SINGLE-LINE: E203 | GCB7-04 / ATS7-04: E7024

GEN-FDR7-04

L1 — GENSEG-B-L1 → **GENSEG-B-L1**

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GCB7-04 LINE L1

to 7024

GEN-FDR7-04

L2 — GENSEG-B-L2 → **GENSEG-B-L2**

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GCB7-04 LINE L2

to 7024

GEN-FDR7-04

L3 — GENSEG-B-L3 → **GENSEG-B-L3**

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GCB7-04 LINE L3

to 7024

GEN-FDR7-04

GEN-N-COMMON — GEN-N-COMMON — N → **GEN-N-COMMON**

PLANT N / E7061

from 7061

ATS7-04 EMERGENCY N

to 7024

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC			
	SEG-B TO GCB7-04 EMERGENCY FEEDER PHASE INTERFACES			
	SIZE	FSCM NO	DRAWING NUMBER E-7044	REV P3
	SCALE NTS		SHEET 7044	

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP7-04
L1 T1 F-3
Z7-04-PDU-IN-L1
L2 T2
Z7-04-PDU-IN-L2
L3 T3
Z7-04-PDU-IN-L3

CTRL+ CTRL-
SSW7-04-L1
STATIC BYPASS L1
SSW7-04-L2
STATIC BYPASS L2
SSW7-04-L3
STATIC BYPASS L3

Z7-ATS-UPS-04-L1 from 7024
Z7-ATS-UPS-04-L2 from 7024
Z7-ATS-UPS-04-L3 from 7024
Z7-ATS-UPS-04-N from 7024

UIB7-04
Z7-ATS-UPS-04-L1 L1 T1 Z7-04-UIB-UPS-L1 IN-L1
Z7-ATS-UPS-04-L2 L2 T2 Z7-04-UIB-UPS-L2 IN-L2
Z7-ATS-UPS-04-L3 L3 T3 Z7-04-UIB-UPS-L3 IN-L3
IN-N
Z7-ATS-UPS-04-N

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS7-04
UPS CONVERSION FUNCTION
480 V 3 PH
DC+ DC- PE

OUT-L1 Z7-04-UPS-UOI-L1
OUT-L2 Z7-04-UPS-UOI-L2
OUT-L3 Z7-04-UPS-UOI-L3

UOI7-04
L1 T1
L2 T2
L3 T3

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z7-04-UPS-PE
Z7-04-UPS-DC-P
Z7-04-UPS-DC-N

BATTERY / RFQ-07
BDIT-04
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z7-04-BATT-DC-P
Z7-04-BATT-DC-N
BAT7-04
UPS7-04 BATTERY

GEN-PE-COMMON
ATS PE / E7024
from 7024
GEN-PE-COMMON

PE-UPS7-04
MODULE PE BAR
Z7-04-PDU-PE
PE-PDU7-04
PDU7-04 PE BAR
Z7-04-ITCB-OUT-PE
PE

PDU7-04 / RFQ-16
PDU7-04 MAIN PROTECTION
3-POLE / UPS7-04 PATH
RACK FEEDER - SEE E201
3200A CLASS - STUDY

PDU7-04-Q0
L1 T1 Z7-04-PDU-BUS-L1
L2 T2 Z7-04-PDU-BUS-L2
L3 T3 Z7-04-PDU-BUS-L3

ITCB7-04
L1 T1 Z7-04-ITCB-OUT-L1
L2 T2 Z7-04-ITCB-OUT-L2
L3 T3 Z7-04-ITCB-OUT-L3

IT-OUT-7-04
L1
L2
L3

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-04
1
Z7-04-UPS-ALARM-A
TB-BMS7-04
1
ALARM LEG A
ALARM LEG A

TB-UPS7-04
2
Z7-04-UPS-ALARM-B
TB-BMS7-04
2
ALARM LEG B
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-04
AUX-A AUX-B C-2
Z7-04-MBP-CLOSED-A
9 TB-UPS7-04
9 TB-BMS7-04
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z7-04-MBP-CLOSED-B
10 TB-UPS7-04
10 TB-BMS7-04

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

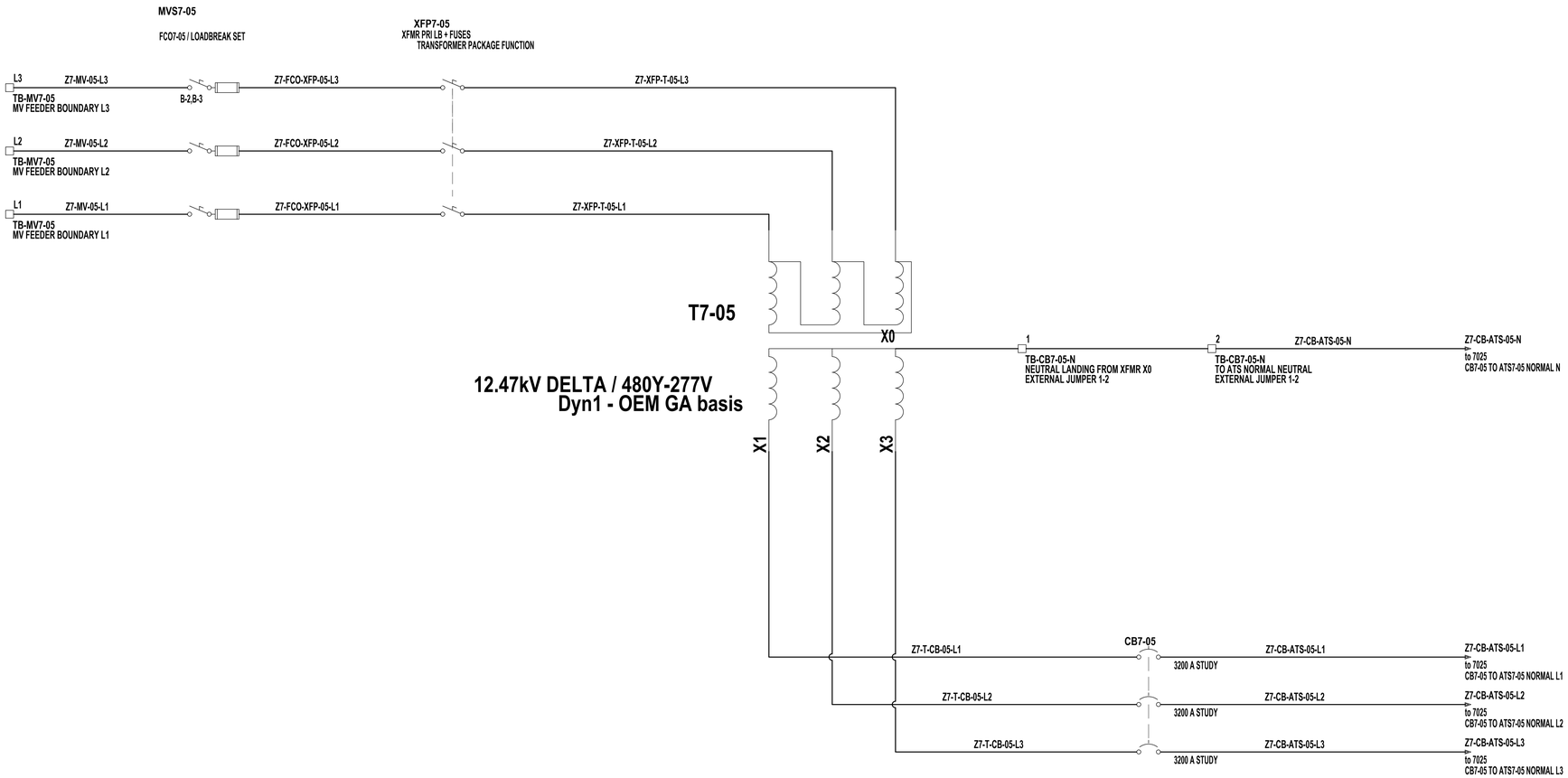
DWG TITLE

UPS7-04 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS7-04 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO KK-RD	DRAWN BY
SCALE No Scale	DATE 2026-10-27
DWG NO E-7054	
SHEET NO 0F	

CAD DWG FILE

TB-MV7-05 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-05 MV BRANCH TO CB7-05
FCO - XFP - T7-05 - CB7-05
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-7015

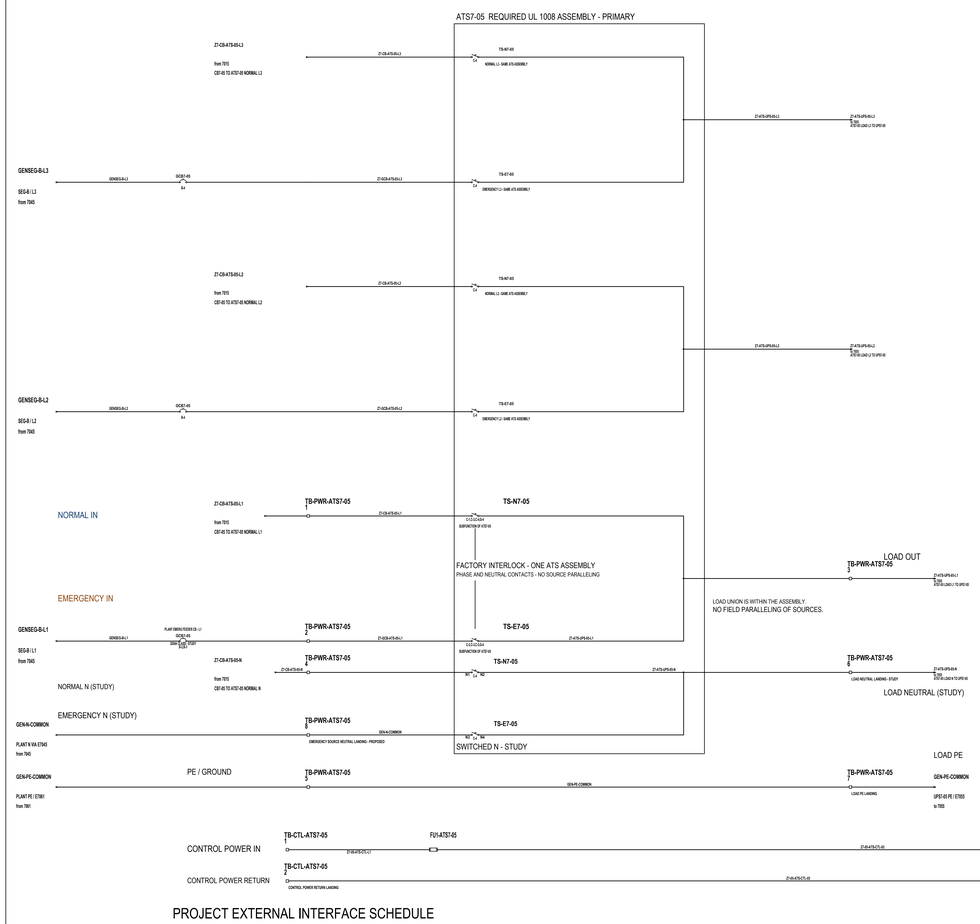
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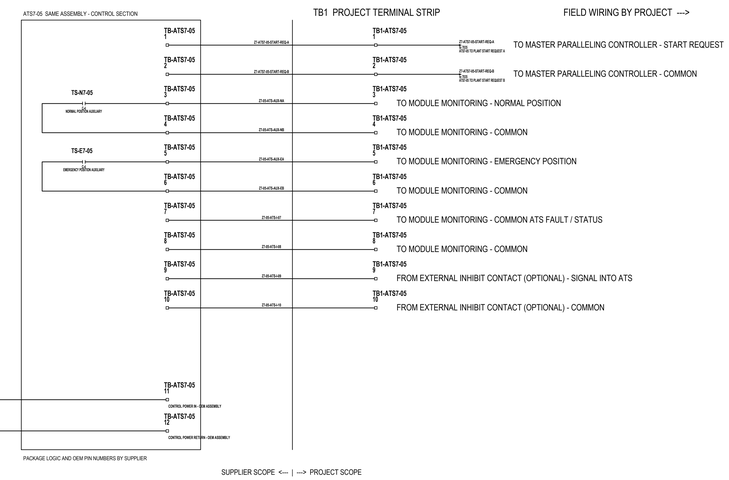
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CAD DWG FILE

E-7025 ATS7-05 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 05 REV M28-R1 2026-09-27





PROJECT EXTERNAL INTERFACE SCHEDULE

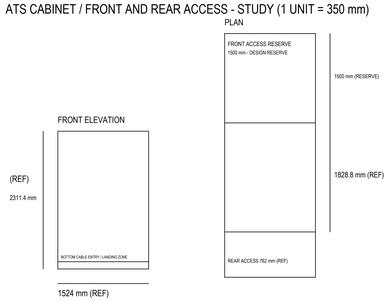
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-05 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-05 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-05 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-05. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-05, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 05
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

E-7035 ATS7-05 / SEG-B PLANT CONTROL INTERFACE

PATH 7-05: START TB-GPC-SEGB:7/8; CLOSE PERMISSION TB-GPC-SEGB:5/6 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-B TB-GPC-SEGB

CLOSE PERMISSION TO E7025

ATS TERMINALS: SEE E7025



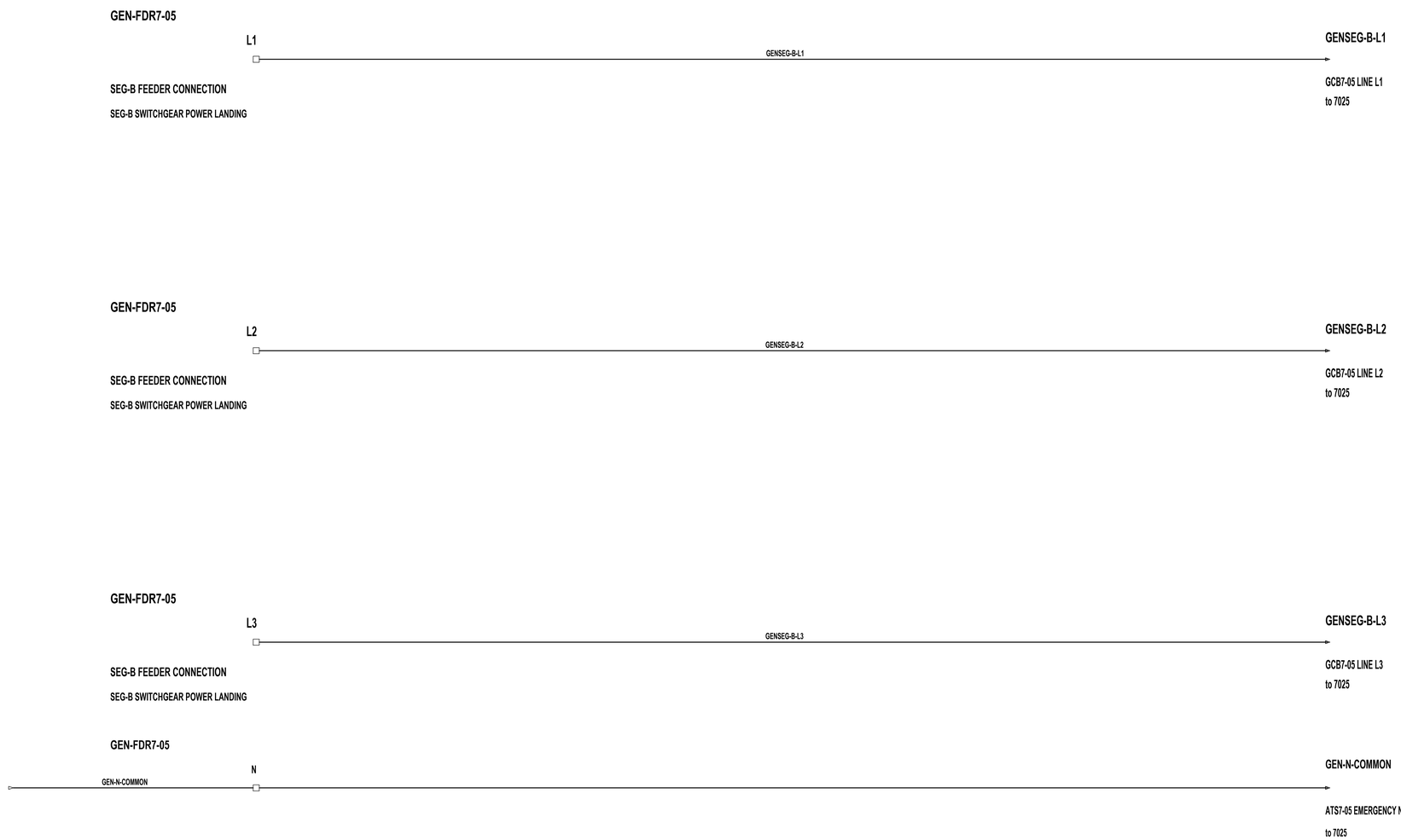
1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-05:11/12 AND TB-ATS7-05:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-05:1/2 START REQUEST IS SHOWN ON E7025.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-05 ON SEG-B ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-B EMERGENCY FEEDER / PATH 7-05

PLANT SINGLE-LINE: E203 | GCB7-05 / ATS7-05: E7025



POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC
	SEG-B TO GCB7-05
	EMERGENCY FEEDER PHASE INTERFACES
	SIZE: — | FSCM NO: — | DRAWING NUMBER: E-7045 | REV: P3
	SCALE: NTS | SHEET: 7045

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP7-05
L1 T1 F-3
Z7-05-PDU-IN-L1
L2 T2
Z7-05-PDU-IN-L2
L3 T3
Z7-05-PDU-IN-L3

CTRL+ CTRL-
SSW7-05-L1
STATIC BYPASS L1
SSW7-05-L2
STATIC BYPASS L2
SSW7-05-L3
STATIC BYPASS L3

UPS7-05
UPS CONVERSION FUNCTION
480 V 3 PH

Z7-ATS-UPS-05-L1 from 7025 — Z7-ATS-UPS-05-L1 — UIB7-05 L1 T1 — Z7-05-UIB-UPS-L1 — IN-L1
Z7-ATS-UPS-05-L2 from 7025 — Z7-ATS-UPS-05-L2 — L2 T2 — Z7-05-UIB-UPS-L2 — IN-L2
Z7-ATS-UPS-05-L3 from 7025 — Z7-ATS-UPS-05-L3 — L3 T3 — Z7-05-UIB-UPS-L3 — IN-L3
IN-N
Z7-ATS-UPS-05-N from 7025 — Z7-ATS-UPS-05-N

OUT-L1 — Z7-05-UPS-UOI-L1 — UOI7-05 L1 T1
OUT-L2 — Z7-05-UPS-UOI-L2 — L2 T2
OUT-L3 — Z7-05-UPS-UOI-L3 — L3 T3

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

DC+ DC- PE
Z7-05-UPS-DC-P
Z7-05-UPS-DC-N
Z7-05-UPS-PE

BATTERY / RFQ-07
BDIT-05
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z7-05-BATT-DC-P
Z7-05-BATT-DC-N
BAT7-05
UPS7-05 BATTERY

GEN-PE-COMMON
ATS PE / ET025
from 7025
GEN-PE-COMMON

PE-UPS7-05
MODULE PE BAR
Z7-05-PDU-PE
PE-PDU7-05
PDU7-05 PE BAR
Z7-05-ITCB-OUT-PE

PDU7-05 / RFQ-16
PDU7-05 MAIN PROTECTION
3-POLE / UPS7-05 PATH
RACK FEEDER - SEE E201
3200A CLASS - STUDY

PDU7-05-Q0
L1 T1 — Z7-05-PDU-BUS-L1
L2 T2 — Z7-05-PDU-BUS-L2
L3 T3 — Z7-05-PDU-BUS-L3

ITCB7-05
L1 T1 — Z7-05-ITCB-OUT-L1
L2 T2 — Z7-05-ITCB-OUT-L2
L3 T3 — Z7-05-ITCB-OUT-L3

IT-OUT-7-05
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-05
1
Z7-05-UPS-ALARM-A
ALARM LEG A

TB-BMS7-05
1
ALARM LEG A

TB-UPS7-05
2
Z7-05-UPS-ALARM-B
ALARM LEG B

TB-BMS7-05
2
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-05
AUX-A C-2 AUX-B
Z7-05-MBP-CLOSED-A
9 TB-UPS7-05 — 9 TB-BMS7-05
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z7-05-MBP-CLOSED-B
10 TB-UPS7-05 — 10 TB-BMS7-05

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

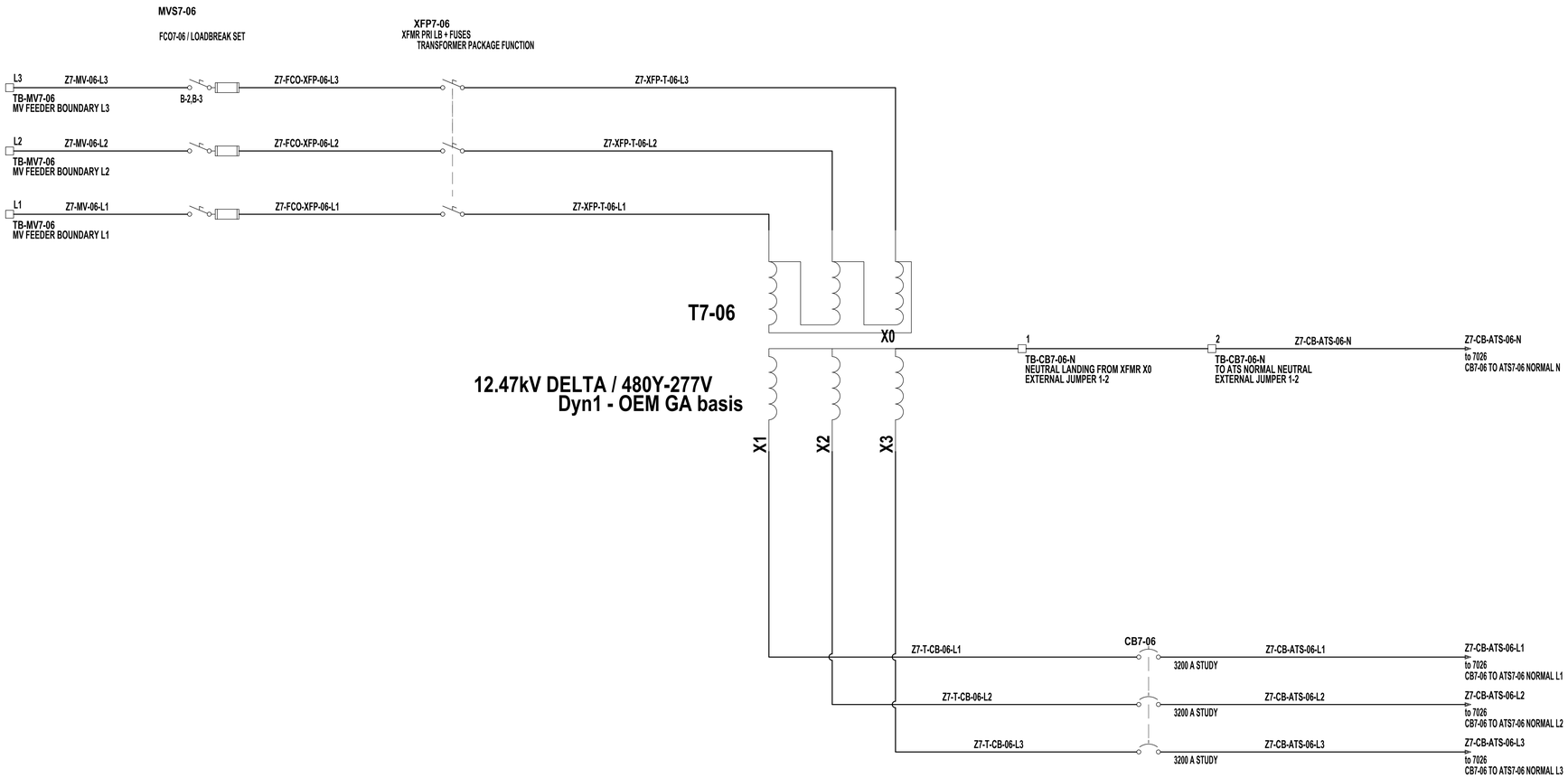
DWG TITLE

UPS7-05 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS7-05 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-10-27
DWG NO: E-7055	
SHEET NO: 0F	

CAD DWG FILE

TB-MV7-06 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 7-06 MV BRANCH TO CB7-06
FCO - XFP - T7-06 - CB7-06
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-7016

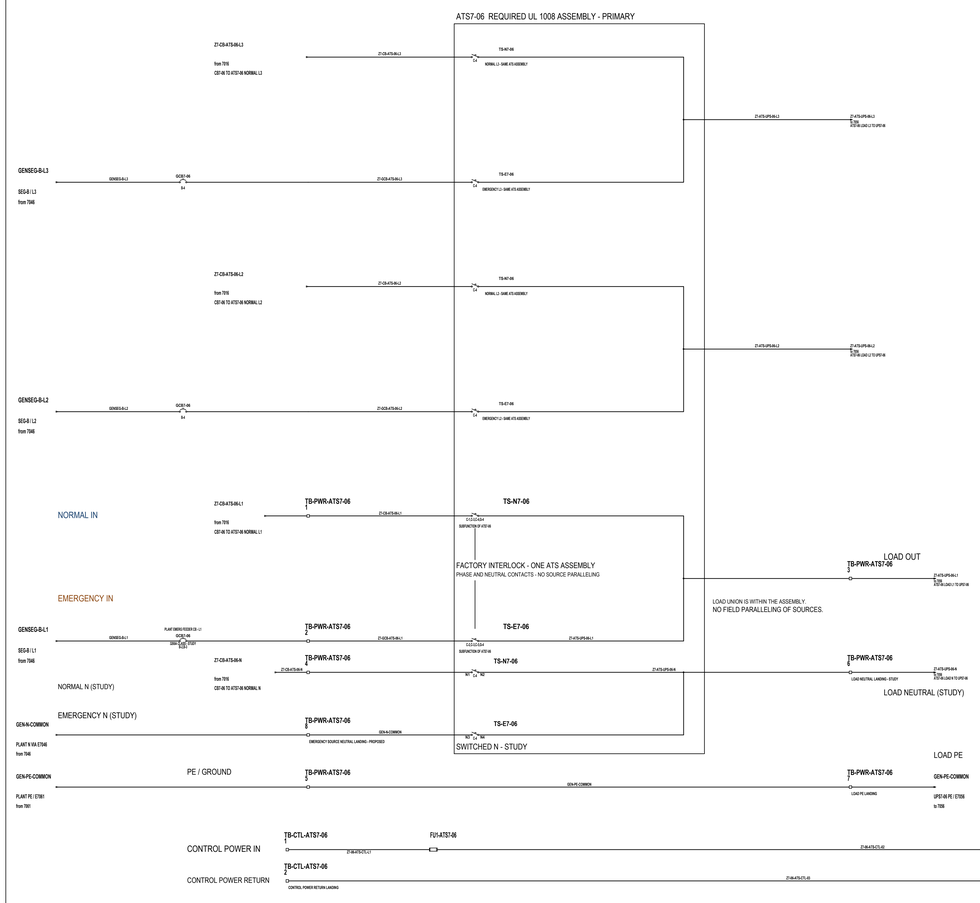
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CAD DWG FILE

E-7026 ATS7-06 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 7 / PATH 06 REV M28-R1 2026-09-27



ATS7-06 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS7-06 13 — COMBINED CLOSE PERMIT A	TB1-ATS7-06 11 — COMBINED CLOSE PERMIT A	Z1-SEGB-PERMIT-7-06-A (T036 to T016) — SEG-B PERMIT A from T036
TB-ATS7-06 14 — COMBINED CLOSE PERMIT B	TB1-ATS7-06 12 — COMBINED CLOSE PERMIT B	Z1-SEGB-PERMIT-7-06-B (T036 to T016) — SEG-B PERMIT B from T036

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

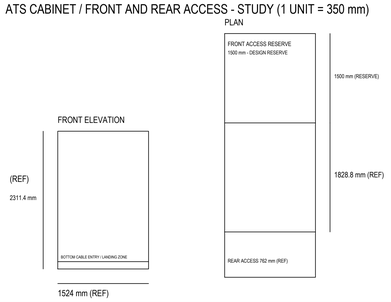
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N7-06 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E7-06 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS7-06 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB7-06. SEE E107 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB7-06, SEE E107 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 7 - PATH 06
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

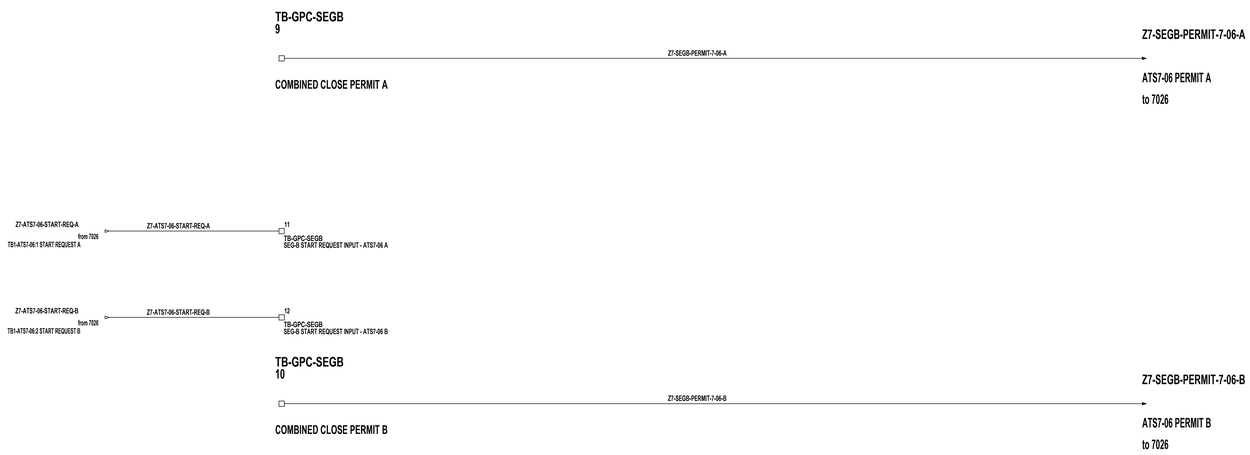
E-7036 ATS7-06 / SEG-B PLANT CONTROL INTERFACE

PATH 7-06: START TB-GPC-SEGB:11/12; CLOSE PERMISSION TB-GPC-SEGB:9/10 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-B TB-GPC-SEGB

CLOSE PERMISSION TO E7026

ATS TERMINALS: SEE E7026



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS7-06:11/12 AND TB-ATS7-06:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS7-06:1/2 START REQUEST IS SHOWN ON E7026.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 7-06 ON SEG-B ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS				
	P3			

SEG-B EMERGENCY FEEDER / PATH 7-06

PLANT SINGLE-LINE: E203 | GCB7-06 / ATS7-06: E7026

GEN-FDR7-06

L1 — GENSEG-B-L1

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GENSEG-B-L1

GCB7-06 LINE L1

to 7026

GEN-FDR7-06

L2 — GENSEG-B-L2

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GENSEG-B-L2

GCB7-06 LINE L2

to 7026

GEN-FDR7-06

L3 — GENSEG-B-L3

SEG-B FEEDER CONNECTION

SEG-B SWITCHGEAR POWER LANDING

GENSEG-B-L3

GCB7-06 LINE L3

to 7026

GEN-FDR7-06

GEN-N-COMMON — GEN-N-COMMON — N

PLANT N / E7061

from 7061

GEN-N-COMMON

ATS7-06 EMERGENCY N

to 7026

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC		
	SEG-B TO GCB7-06		
	EMERGENCY FEEDER PHASE INTERFACES		
	SIZE	FSCM NO	DRAWING NUMBER: E-7046 — REV: P3
	SCALE: NTS		SHEET: 7046

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP7-06
L1 T1 F-3
Z7-06-PDU-IN-L1
L2 T2
Z7-06-PDU-IN-L2
L3 T3
Z7-06-PDU-IN-L3

CTRL+ CTRL-
SSW7-06-L1
STATIC BYPASS L1
SSW7-06-L2
STATIC BYPASS L2
SSW7-06-L3
STATIC BYPASS L3

UPS7-06
UPS CONVERSION FUNCTION
480 V 3 PH
IN-L1 IN-L2 IN-L3 IN-N
OUT-L1 OUT-L2 OUT-L3
DC+ DC- PE

UIB7-06
Z7-ATS-UPS-06-L1 from 7026
Z7-ATS-UPS-06-L1
L1 T1
Z7-06-UIB-UPS-L1
Z7-ATS-UPS-06-L2 from 7026
Z7-ATS-UPS-06-L2
L2 T2
Z7-06-UIB-UPS-L2
Z7-ATS-UPS-06-L3 from 7026
Z7-ATS-UPS-06-L3
L3 T3
Z7-06-UIB-UPS-L3
COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE
Z7-ATS-UPS-06-N from 7026
Z7-ATS-UPS-06-N

UOI7-06
Z7-06-UPS-UOI-L1
L1 T1
Z7-06-UPS-UOI-L2
L2 T2
Z7-06-UPS-UOI-L3
L3 T3
UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z7-06-UPS-DC-P
Z7-06-UPS-DC-N
Z7-06-UPS-PE

BATTERY / RFQ-07
BDIT-06
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z7-06-BATT-DC-P
Z7-06-BATT-DC-N
BAT7-06
UPS7-06 BATTERY

GEN-PE-COMMON
ATS PE / E7026
from 7026
GEN-PE-COMMON

PE-UPS7-06
MODULE PE BAR
Z7-06-PDU-PE
PE-PDU7-06
PDU7-06 PE BAR
Z7-06-ITCB-OUT-PE

PDU7-06 / RFQ-16
PDU7-06 MAIN PROTECTION
3-POLE / UPS7-06 PATH
RACK FEEDER - SEE E201
3200A CLASS - STUDY

PDU7-06-Q0
L1 T1
Z7-06-PDU-BUS-L1
L2 T2
Z7-06-PDU-BUS-L2
L3 T3
Z7-06-PDU-BUS-L3

ITCB7-06
L1 T1
Z7-06-ITCB-OUT-L1
L2 T2
Z7-06-ITCB-OUT-L2
L3 T3
Z7-06-ITCB-OUT-L3

IT-OUT-7-06
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS7-06
1
Z7-06-UPS-ALARM-A
ALARM LEG A
TB-BMS7-06
1
ALARM LEG A

TB-UPS7-06
2
Z7-06-UPS-ALARM-B
ALARM LEG B
TB-BMS7-06
2
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP7-06
AUX-A AUX-B
C-2
Z7-06-MBP-CLOSED-A
9
TB-UPS7-06
9
TB-BMS7-06
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z7-06-MBP-CLOSED-B
10
TB-UPS7-06
10
TB-BMS7-06

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS7-06 / BYPASS AND PDU INTERFACES ENGINEERING STUDY
UPS7-06 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27
DWG NO: *E-7056*	
SHEET NO: *0F*	

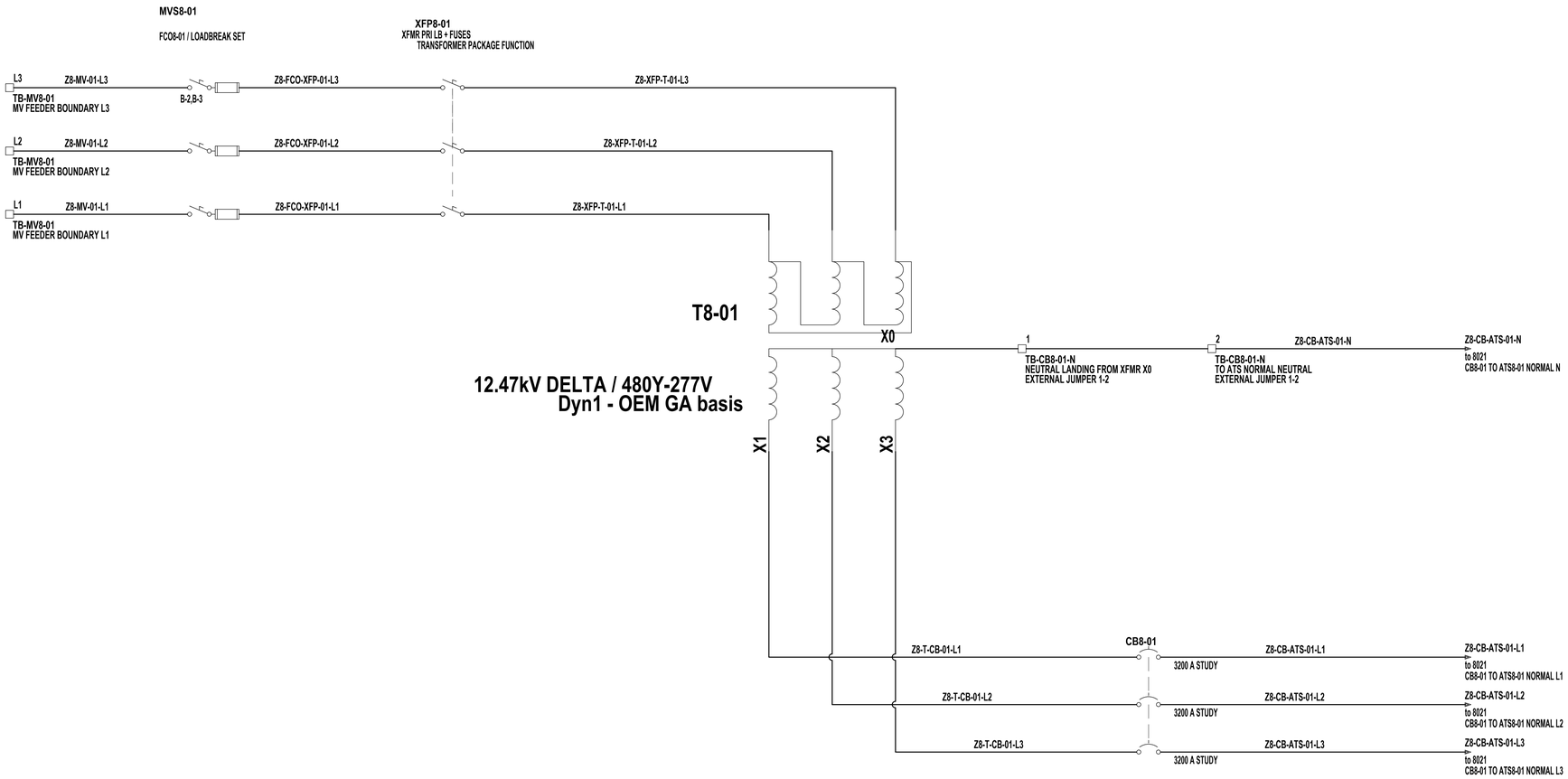
CAD DWG FILE

A | B | C | D | E | F | G

1

TB-MV8-01 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.

2



3

4

5

NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-01 MV BRANCH TO CB8-01
FCO - XFP - T8-01 - CB8-01
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-8011

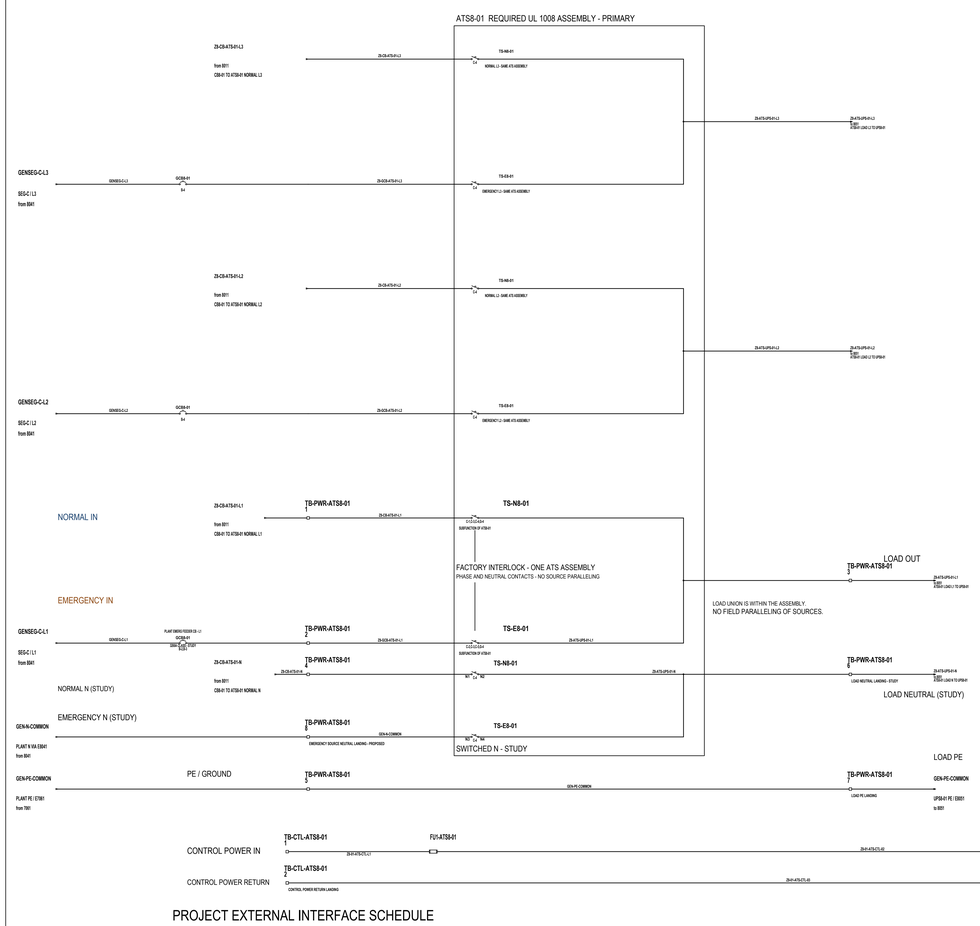
SHEET NO

OF

CAD DWG FILE

E-8021 ATS8-01 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 01 REV M28-R1 2026-09-27

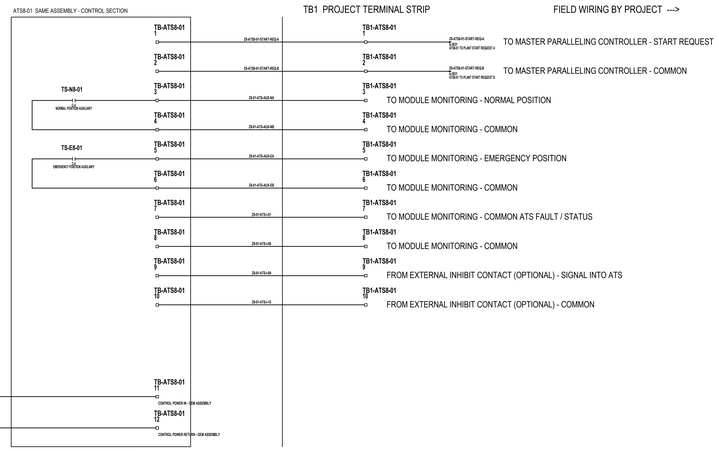


ATS8-01 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS8-01 13	TB1-ATS8-01 11	ZA-SEGC-PERMIT-8-01-A	SEG-C PERMIT A from B021
COMBINED CLOSE PERMIT A	COMBINED CLOSE PERMIT A		
TB-ATS8-01 14	TB1-ATS8-01 12	ZA-SEGC-PERMIT-8-01-B	SEG-C PERMIT B from B021
COMBINED CLOSE PERMIT B	COMBINED CLOSE PERMIT B		

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.



PROJECT EXTERNAL INTERFACE SCHEDULE

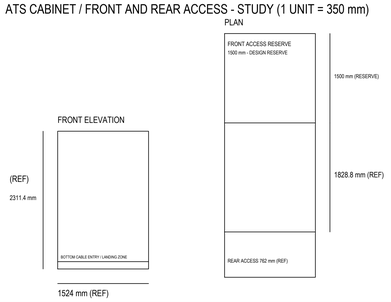
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-01 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-01 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-01 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-01. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-01, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 01
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

E-8031 ATS8-01 / SEG-C PLANT CONTROL INTERFACE

PATH 8-01: START TB-GPC-SEGC:3/4; CLOSE PERMISSION TB-GPC-SEGC:1/2 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-C TB-GPC-SEGC

CLOSE PERMISSION TO E8021

ATS TERMINALS: SEE E8021



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-01:11/12 AND TB-ATS8-01:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-01:1/2 START REQUEST IS SHOWN ON E8021.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-01 ON SEG-C ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

SEG-C EMERGENCY FEEDER / PATH 8-01

PLANT SINGLE-LINE: E203 | GCB8-01 / ATS8-01: E8021

REVISIONS

	P3			

GEN-FDR8-01

L1 → GENSEG-C-L1 → **GENSEG-C-L1**

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GCB8-01 LINE L1

to 8021

GEN-FDR8-01

L2 → GENSEG-C-L2 → **GENSEG-C-L2**

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GCB8-01 LINE L2

to 8021

GEN-FDR8-01

L3 → GENSEG-C-L3 → **GENSEG-C-L3**

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GCB8-01 LINE L3

to 8021

GEN-FDR8-01

GEN-N-COMMON → GEN-N-COMMON → N → **GEN-N-COMMON**

PLANT N / E7061

from 7061

ATS8-01 EMERGENCY N

to 8021

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

K&K Data IDC

SEG-C TO GCB8-01

EMERGENCY FEEDER PHASE INTERFACES

SIZE	FSCM NO	DRAWING NUMBER	REV
		E-8041	P3
SCALE	NTS	SHEET	8041

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-01
L1 T1 F-3
Z8-01-PDU-IN-L1
L2 T2
Z8-01-PDU-IN-L2
L3 T3
Z8-01-PDU-IN-L3

CTRL+ CTRL-
SSWB-01-L1
STATIC BYPASS L1
SSWB-01-L2
STATIC BYPASS L2
SSWB-01-L3
STATIC BYPASS L3

UIIB8-01
UPS8-01
UPS CONVERSION FUNCTION
480 V 3 PH
UOI8-01

Z8-ATS-UPS-01-L1 from 8021 — Z8-ATS-UPS-01-L1 — Z8-01-UIIB-UPS-L1 — IN-L1 — OUT-L1 — Z8-01-UPS-UOI-L1
Z8-ATS-UPS-01-L2 from 8021 — Z8-ATS-UPS-01-L2 — Z8-01-UIIB-UPS-L2 — IN-L2 — OUT-L2 — Z8-01-UPS-UOI-L2
Z8-ATS-UPS-01-L3 from 8021 — Z8-ATS-UPS-01-L3 — Z8-01-UIIB-UPS-L3 — IN-L3 — OUT-L3 — Z8-01-UPS-UOI-L3
IN-N
Z8-ATS-UPS-01-N from 8021 — Z8-ATS-UPS-01-N

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

DC+ DC- PE
Z8-01-UPS-PE
Z8-01-UPS-DC-P
Z8-01-UPS-DC-N

BATTERY / RFQ-07
BDI8-01
DC PROTECTION - STUDY
3-POLE STUDY | BATTERY PACKAGE
U+ U- B+ B-
Z8-01-BATT-DC-P
Z8-01-BATT-DC-N
BATB-01
UPS8-01 BATTERY

GEN-PE-COMMON
Z8-01-GEN-PE-COMMON
ATS PE / E8021
from 8021

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-01 1 — Z8-01-UPS-ALARM-A — TB-BMS8-01 1
ALARM LEG A — ALARM LEG A

TB-UPS8-01 2 — Z8-01-UPS-ALARM-B — TB-BMS8-01 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-01
AUX-A C-2 AUX-B — Z8-01-MBP-CLOSED-A — 9 TB-UPS8-01 — 9 TB-BMS8-01
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z8-01-MBP-CLOSED-B — 10 TB-UPS8-01 — 10 TB-BMS8-01

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

PDU8-01 / RFQ-16
PDU8-01 MAIN PROTECTION
3-POLE / UPS8-01 PATH
RACK FEEDER - SEE E202
3200A CLASS - STUDY
PDU8-01-Q0
Z8-01-PDU-BUS-L1 Z8-01-PDU-BUS-L2 Z8-01-PDU-BUS-L3
ITCB8-01
Z8-01-ITCB-OUT-L1 Z8-01-ITCB-OUT-L2 Z8-01-ITCB-OUT-L3
IT-OUT-8-01
L1 L2 L3 PE
Z8-01-PDU-PE
PE-UPS8-01
MODULE PE BAR
PE-PDU8-01
PDU8-01 PE BAR
Z8-01-ITCB-OUT-PE
OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

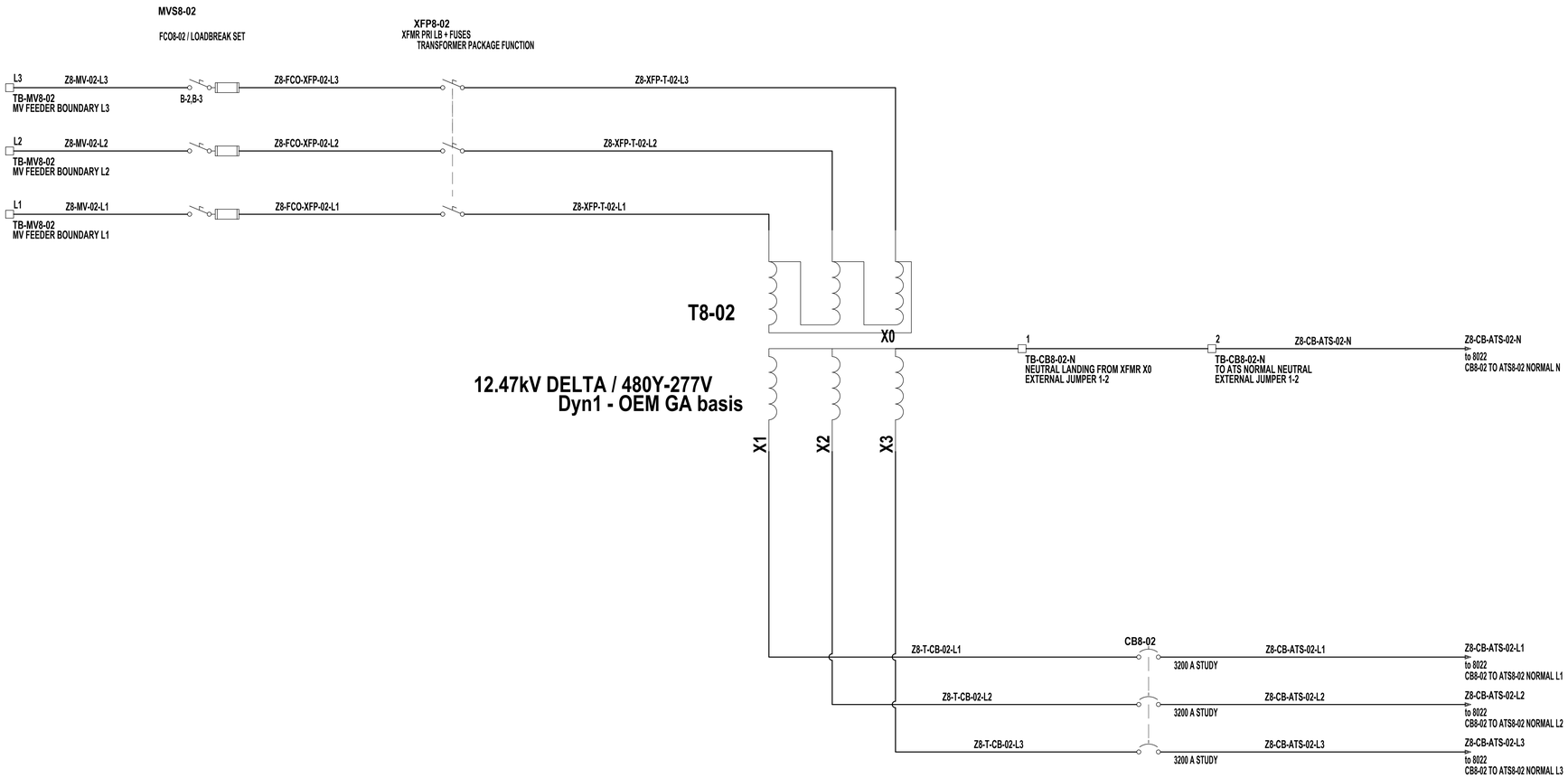
NO.	DATE	REVISION	BY

DWG TITLE
UPS8-01 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS8-01 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-10-27
DWG NO: *E-8051*	
SHEET NO: *0F*	

CAD DWG FILE

TB-MV8-02 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-02 MV BRANCH TO CB8-02
FCO - XFP - T8-02 - CB8-02
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO KK-RD	DRAWN BY
SCALE No Scale	DATE 2026-09-27

DWG NO

E-8012

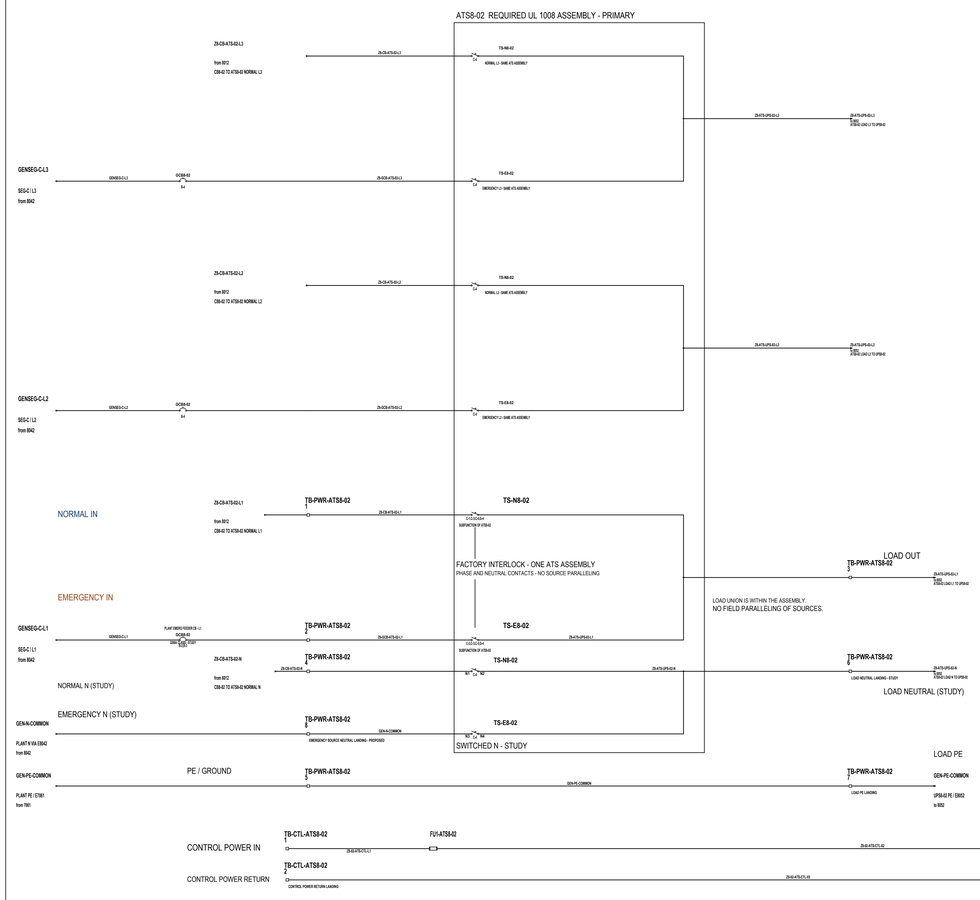
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OF

CAD DWG FILE

E-8022 ATS8-02 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 02 REV M28-R1 2026-09-27



ATS8-02 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS8-02 13 — COMBINED CLOSE PERMIT A	TB1-ATS8-02 11 — COMBINED CLOSE PERMIT A	ZA-SEGC-PERMIT-A-02-A (to SEG-C PERMIT A-02-A) — SEG-C PERMIT A from B022
TB-ATS8-02 14 — COMBINED CLOSE PERMIT B	TB1-ATS8-02 12 — COMBINED CLOSE PERMIT B	ZA-SEGC-PERMIT-B-02-B (to SEG-C PERMIT B-02-B) — SEG-C PERMIT B from B022

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

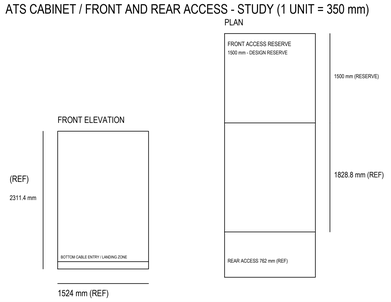
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-02 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-02 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-02 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-02. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-02, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 02
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

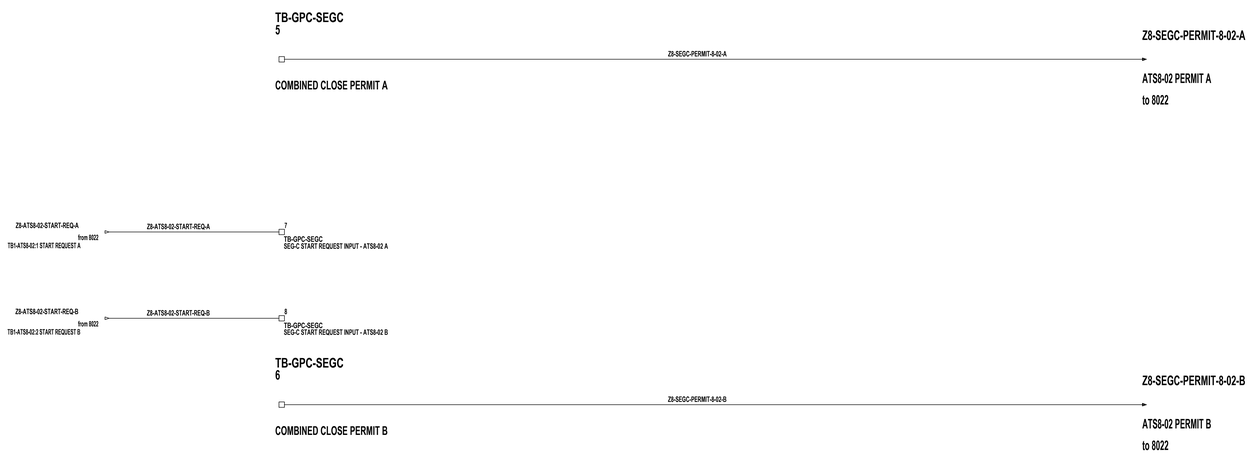
E-8032 ATS8-02 / SEG-C PLANT CONTROL INTERFACE

PATH 8-02: START TB-GPC-SEGC:7/8; CLOSE PERMISSION TB-GPC-SEGC:5/6 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-C TB-GPC-SEGC

CLOSE PERMISSION TO E8022

ATS TERMINALS: SEE E8022



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-02:11/12 AND TB-ATS8-02:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-02:1/2 START REQUEST IS SHOWN ON E8022.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-02 ON SEG-C ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-C EMERGENCY FEEDER / PATH 8-02

PLANT SINGLE-LINE: E203 | GCB8-02 / ATS8-02: E8022

GEN-FDR8-02

L1 — GENSEG-C-L1

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GENSEG-C-L1

GCB8-02 LINE L1

to 8022

GEN-FDR8-02

L2 — GENSEG-C-L2

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GENSEG-C-L2

GCB8-02 LINE L2

to 8022

GEN-FDR8-02

L3 — GENSEG-C-L3

SEG-C FEEDER CONNECTION

SEG-C SWITCHGEAR POWER LANDING

GENSEG-C-L3

GCB8-02 LINE L3

to 8022

GEN-FDR8-02

GEN-N-COMMON — GEN-N-COMMON — N

PLANT N / E7061

from 7061

GEN-N-COMMON

ATS8-02 EMERGENCY N

to 8022

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

K&K Data IDC

SEG-C TO GCB8-02

EMERGENCY FEEDER PHASE INTERFACES

SIZE	FSCM NO	DRAWING NUMBER	REV
		E-8042	P3
SCALE	NTS	SHEET	8042

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-02
L1 T1 F-3
Z8-02-PDU-IN-L1
L2 T2
Z8-02-PDU-IN-L2
L3 T3
Z8-02-PDU-IN-L3

CTRL+ CTRL-
SSWB-02-L1
STATIC BYPASS L1
SSWB-02-L2
STATIC BYPASS L2
SSWB-02-L3
STATIC BYPASS L3

UPS8-02
UPS CONVERSION FUNCTION
480 V 3 PH

Z8-ATS-UPS-02-L1 from 8022 — Z8-ATS-UPS-02-L1 — UIB8-02 L1 T1 — Z8-02-UIB-UPS-L1 — IN-L1 — OUT-L1 — Z8-02-UPS-UOI-L1 — UOI8-02 L1 T1
Z8-ATS-UPS-02-L2 from 8022 — Z8-ATS-UPS-02-L2 — L2 T2 — Z8-02-UIB-UPS-L2 — IN-L2 — OUT-L2 — Z8-02-UPS-UOI-L2 — L2 T2
Z8-ATS-UPS-02-L3 from 8022 — Z8-ATS-UPS-02-L3 — L3 T3 — Z8-02-UIB-UPS-L3 — IN-L3 — OUT-L3 — Z8-02-UPS-UOI-L3 — L3 T3
IN-N
Z8-ATS-UPS-02-N from 8022 — Z8-ATS-UPS-02-N

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

DC+ DC- PE
Z8-02-UPS-PE
Z8-02-UPS-DC-P
Z8-02-UPS-DC-N

BATTERY / RFQ-07

BDI8-02
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z8-02-BATT-DC-P
Z8-02-BATT-DC-N
BATB-02
UPS8-02 BATTERY

GEN-PE-COMMON
ATS PE / E8022
from 8022
GEN-PE-COMMON

PE-UPS8-02 — MODULE PE BAR
Z8-02-PDU-PE
PE-PDU8-02 — PDU8-02 PE BAR
Z8-02-ITCB-OUT-PE

PDU8-02 / RFQ-16

PDU8-02 MAIN PROTECTION
3-POLE / UPS8-02 PATH

RACK FEEDER - SEE E202
3200A CLASS - STUDY

PDU8-02-Q0 L1 T1 — Z8-02-PDU-BUS-L1 — ITCB8-02 L1 T1 — Z8-02-ITCB-OUT-L1 — IT-OUT-8-02 L1
PDU8-02-Q0 L2 T2 — Z8-02-PDU-BUS-L2 — ITCB8-02 L2 T2 — Z8-02-ITCB-OUT-L2 — IT-OUT-8-02 L2
PDU8-02-Q0 L3 T3 — Z8-02-PDU-BUS-L3 — ITCB8-02 L3 T3 — Z8-02-ITCB-OUT-L3 — IT-OUT-8-02 L3
IT-OUT-8-02 PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-02 1 — Z8-02-UPS-ALARM-A — TB-BMS8-02 1
ALARM LEG A — ALARM LEG A

TB-UPS8-02 2 — Z8-02-UPS-ALARM-B — TB-BMS8-02 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-02
AUX-A C-2 AUX-B — Z8-02-MBP-CLOSED-A — 9 TB-UPS8-02 — 9 TB-BMS8-02
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z8-02-MBP-CLOSED-B — 10 TB-UPS8-02 — 10 TB-BMS8-02

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS8-02 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS8-02 DETAIL COORDINATION

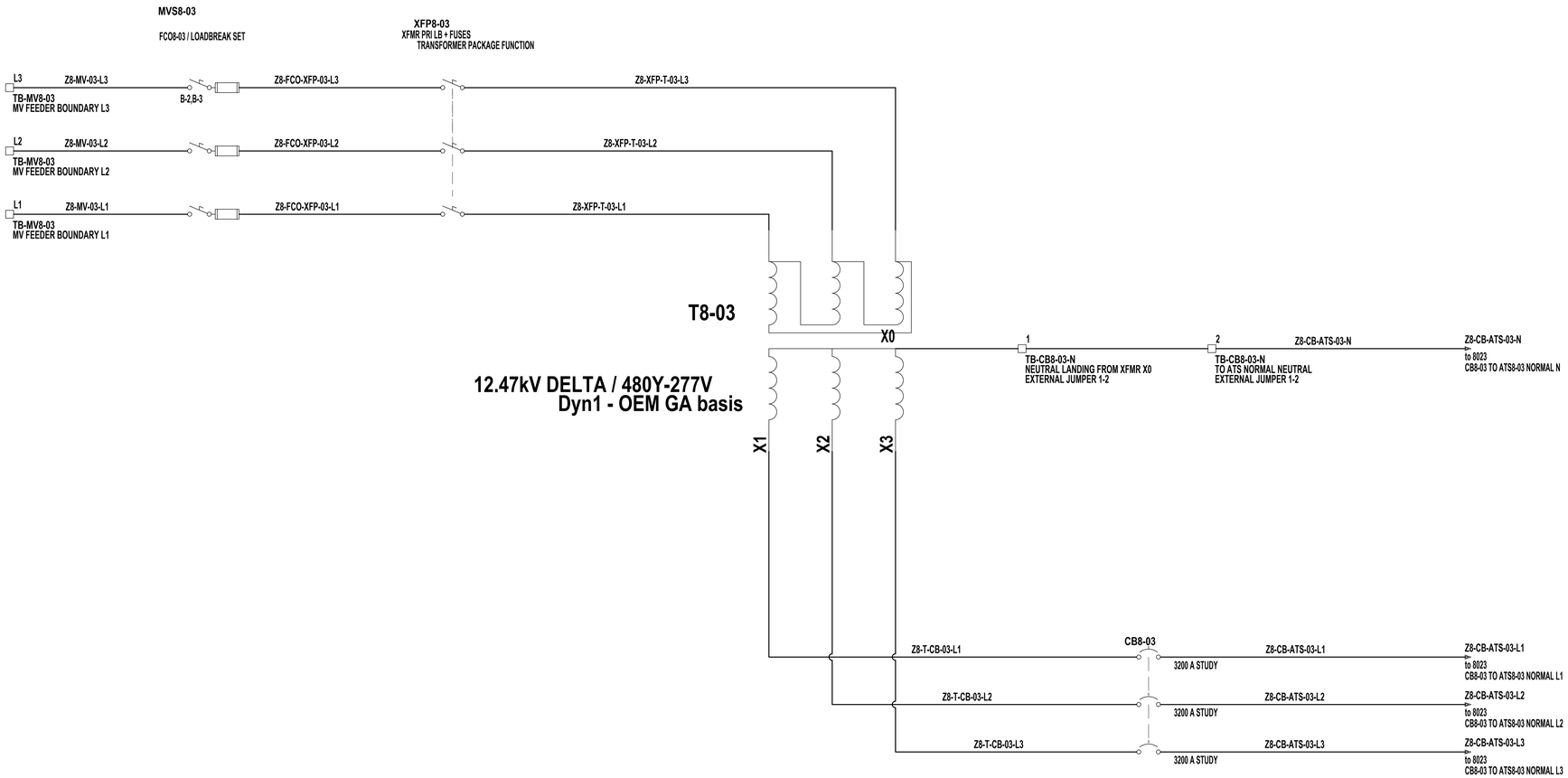
ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO
E-8052

SHEET NO
0F

CAD DWG FILE

TB-MV8-03 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-03 MV BRANCH TO CB8-03
FCO - XFP - T8-03 - CB8-03
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-8013

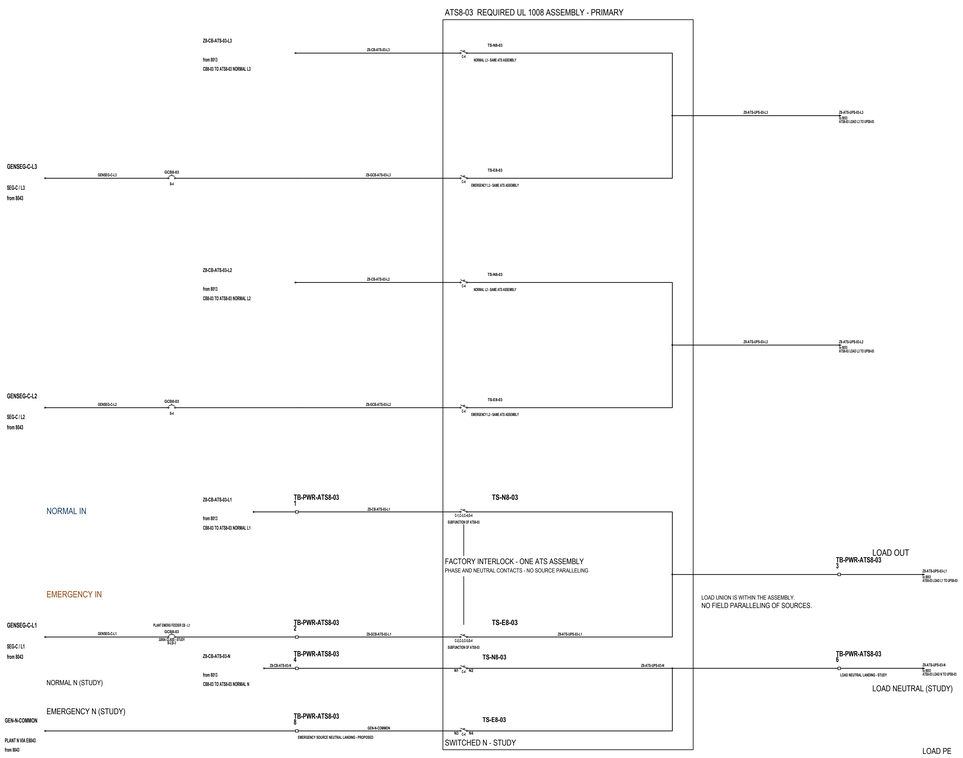
SHEET NO

OF

CAD DWG FILE

E-8023 ATS8-03 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 03 REV M28-R1 2026-09-27

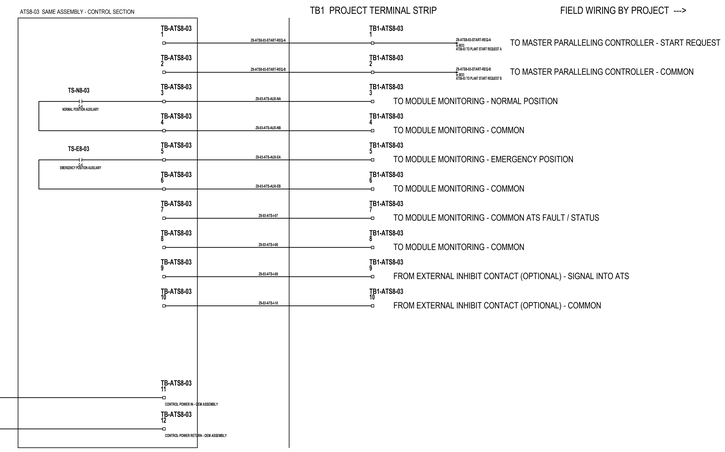


ATS8-03 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.



LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.



PROJECT EXTERNAL INTERFACE SCHEDULE

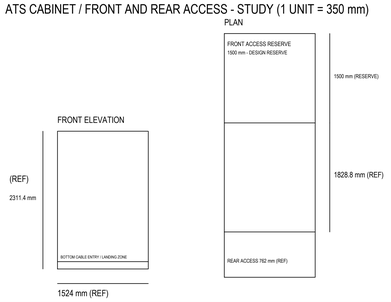
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14: SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-03 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-03 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-03 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-03. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-03, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 03
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

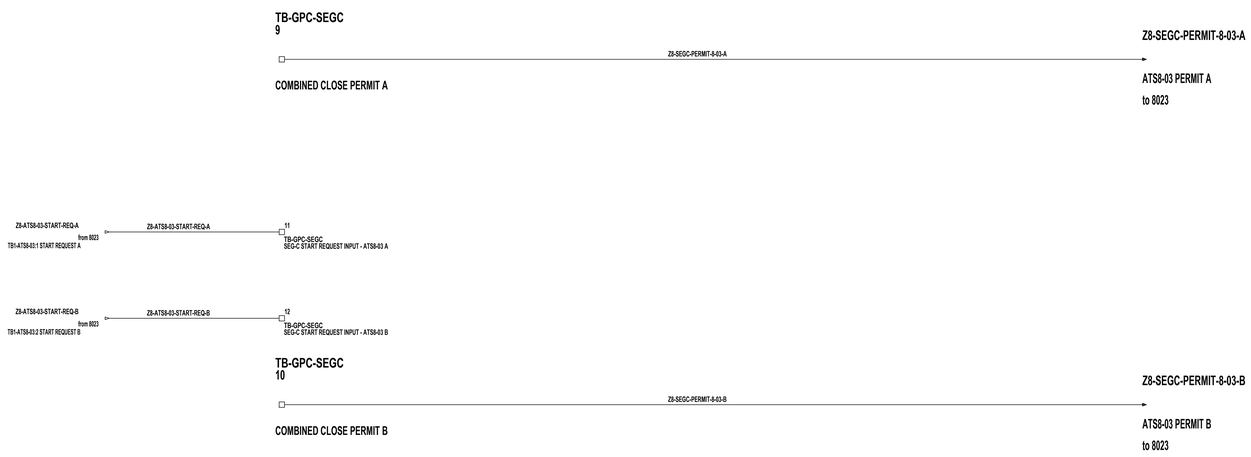
E-8033 ATS8-03 / SEG-C PLANT CONTROL INTERFACE

PATH 8-03: START TB-GPC-SEGC:11/12; CLOSE PERMISSION TB-GPC-SEGC:9/10 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-C TB-GPC-SEGC

CLOSE PERMISSION TO E8023

ATS TERMINALS: SEE E8023



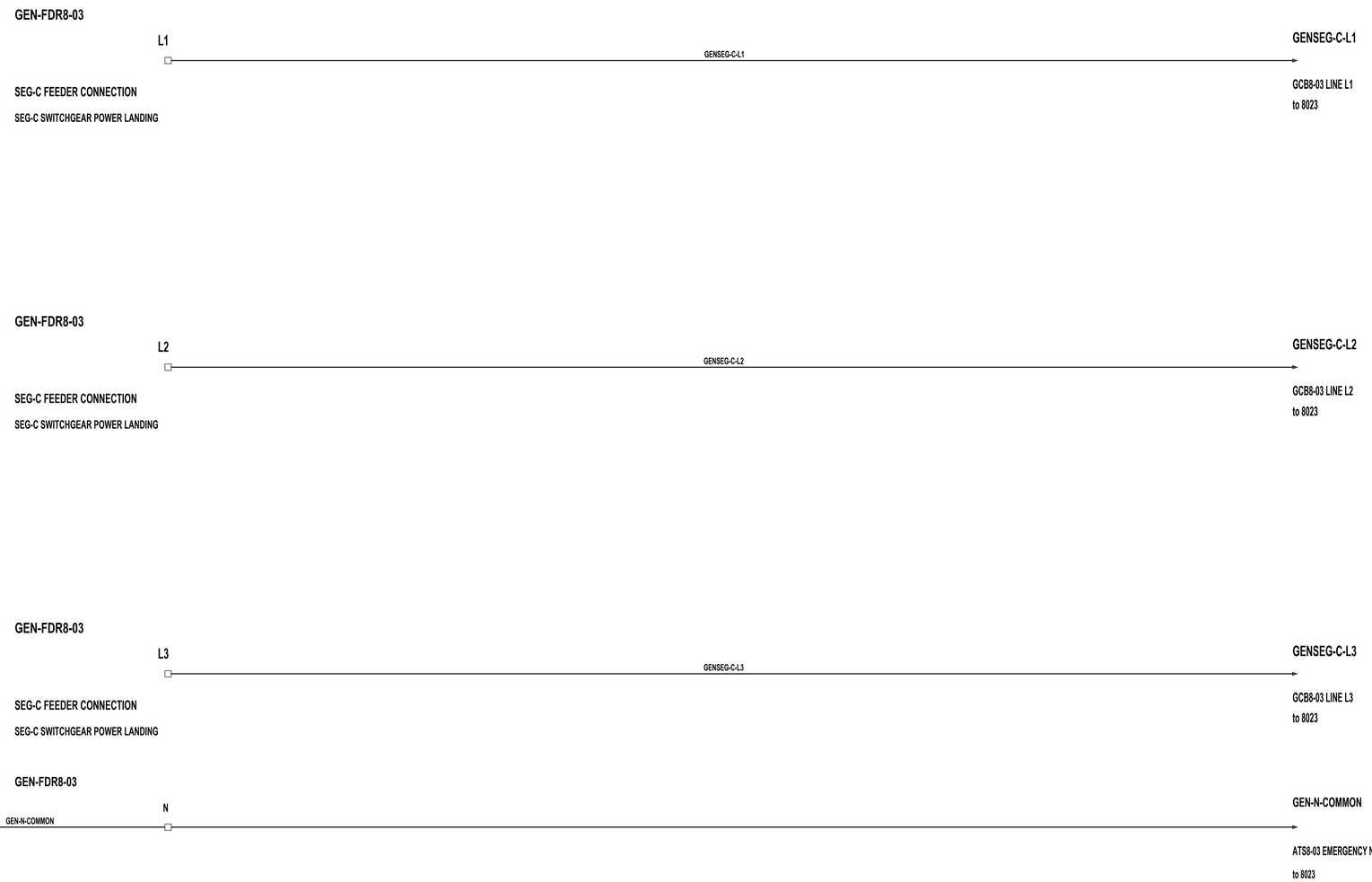
1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-03:11/12 AND TB-ATS8-03:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-03:1/2 START REQUEST IS SHOWN ON E8023.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-03 ON SEG-C ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-C EMERGENCY FEEDER / PATH 8-03

PLANT SINGLE-LINE: E203 | GCB8-03 / ATS8-03: E8023



POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC
	SEG-C TO GCB8-03
	EMERGENCY FEEDER PHASE INTERFACES
	SIZE · FSCM NO · DRAWING NUMBER E-8043 · REV P3
	SCALE NTS · SHEET 8043

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE / 3-POLE

MBP8-03
L1 T1 F-3
Z8-03-PDU-IN-L1
L2 T2
Z8-03-PDU-IN-L2
L3 T3
Z8-03-PDU-IN-L3

CTRL+ CTRL-
SSW8-03-L1
STATIC BYPASS L1
SSW8-03-L2
STATIC BYPASS L2
SSW8-03-L3
STATIC BYPASS L3

Z8-ATS-UPS-03-L1 from 8023
Z8-ATS-UPS-03-L2 from 8023
Z8-ATS-UPS-03-L3 from 8023
Z8-ATS-UPS-03-N from 8023

UIBB-03
Z8-ATS-UPS-03-L1 L1 T1 Z8-03-UIB-UPS-L1
Z8-ATS-UPS-03-L2 L2 T2 Z8-03-UIB-UPS-L2
Z8-ATS-UPS-03-L3 L3 T3 Z8-03-UIB-UPS-L3

UPS8-03
UPS CONVERSION FUNCTION
480 V 3 PH
IN-L1 IN-L2 IN-L3 IN-N
DC+ DC- PE

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE
Z8-ATS-UPS-03-N

Z8-03-UPS-DC-P
Z8-03-UPS-DC-N
Z8-03-UPS-PE

OUT-L1 OUT-L2 OUT-L3
Z8-03-UPS-UOI-L1
Z8-03-UPS-UOI-L2
Z8-03-UPS-UOI-L3

UOIB-03
L1 T1
L2 T2
L3 T3

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

BATTERY / RFQ-07

BDIB-03
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z8-03-BATT-DC-P
Z8-03-BATT-DC-N
BATB-03
UPS8-03 BATTERY

GEN-PE-COMMON
ATS PE / E8023
from 8023
GEN-PE-COMMON

PE-UPS8-03
MODULE PE BAR
Z8-03-PDU-PE
PE-PDU8-03
PDU8-03 PE BAR
Z8-03-ITCB-OUT-PE

PDU8-03 / RFQ-16

PDU8-03 MAIN PROTECTION
3-POLE / UPS8-03 PATH

RACK FEEDER - SEE E202
3200A CLASS - STUDY

PDU8-03-Q0 L1 T1 L2 T2 L3 T3
Z8-03-PDU-BUS-L1
Z8-03-PDU-BUS-L2
Z8-03-PDU-BUS-L3

ITCB8-03 L1 T1 L2 T2 L3 T3
Z8-03-ITCB-OUT-L1
Z8-03-ITCB-OUT-L2
Z8-03-ITCB-OUT-L3

IT-OUT-8-03
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-03
1
Z8-03-UPS-ALARM-A
TB-BMS8-03
1
ALARM LEG A
ALARM LEG A

TB-UPS8-03
2
Z8-03-UPS-ALARM-B
TB-BMS8-03
2
ALARM LEG B
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-03
AUX-A AUX-B C-2
Z8-03-MBP-CLOSED-A
9
TB-UPS8-03
9
TB-BMS8-03
MBP CLOSED INDICATION
AUX CONTACT - STUDY

Z8-03-MBP-CLOSED-B
10
TB-UPS8-03
10
TB-BMS8-03

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS8-03 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS8-03 DETAIL COORDINATION

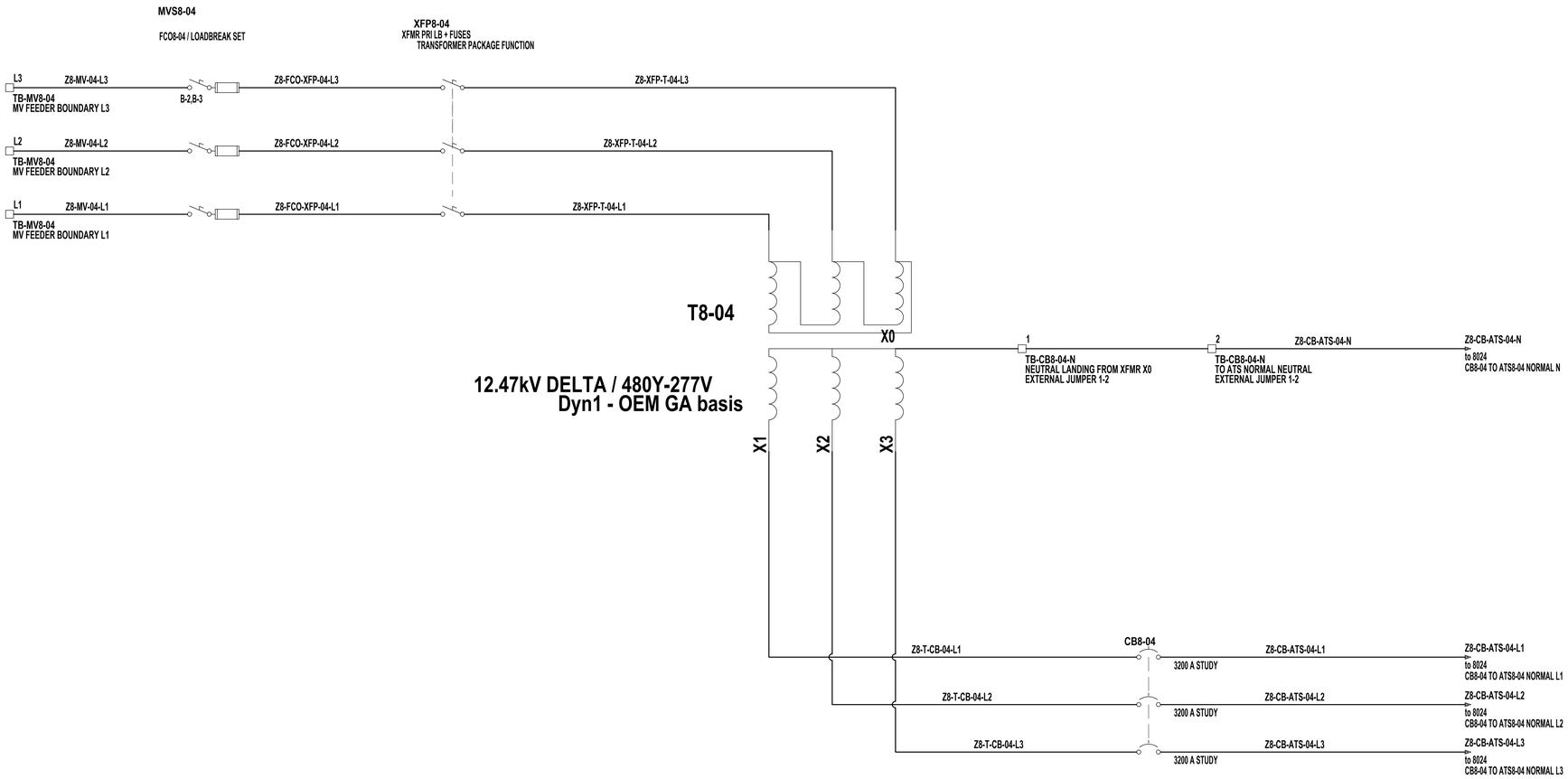
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JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO
E-8053

SHEET NO
0F

CAD DWG FILE

TB-MV8-04 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-04 MV BRANCH TO CB8-04
FCO - XFP - T8-04 - CB8-04
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

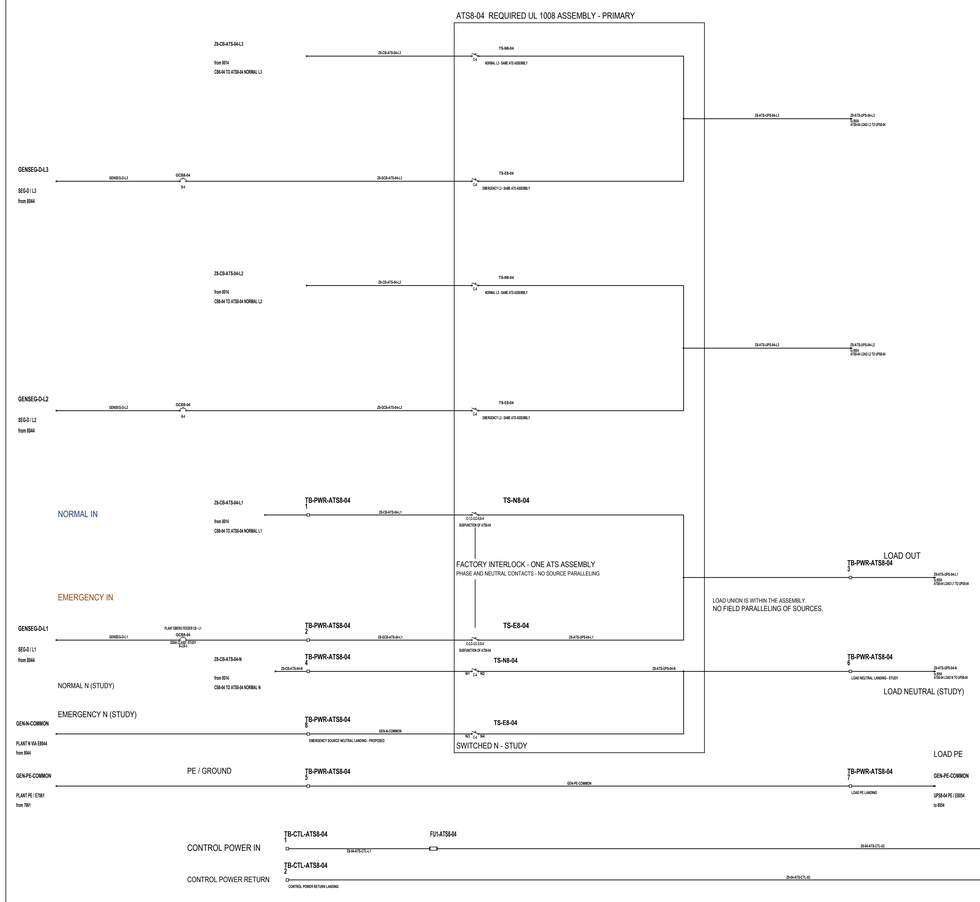
DWG NO
E-8014

SHEET NO
OF

CAD DWG FILE

E-8024 ATS8-04 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 04 REV M28-R1 2026-09-27

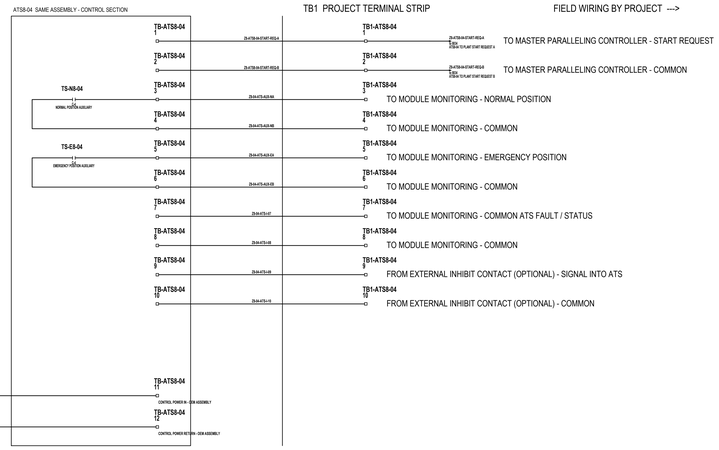


ATS8-04 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS8-04 13 — COMBINED CLOSE PERMIT A	TB1-ATS8-04 11 — COMBINED CLOSE PERMIT A	ZS-SEQD-PERMIT-8-04-A — SEG-D PERMIT A from B024
TB-ATS8-04 14 — COMBINED CLOSE PERMIT B	TB1-ATS8-04 12 — COMBINED CLOSE PERMIT B	ZS-SEQD-PERMIT-8-04-B — SEG-D PERMIT B from B024

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.



PROJECT EXTERNAL INTERFACE SCHEDULE

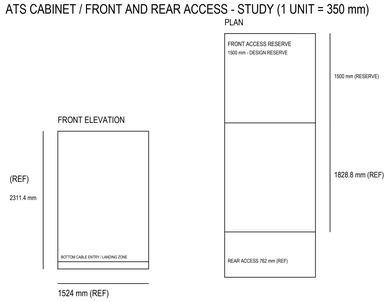
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-04 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-04 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-04 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-04. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-04, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 04
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

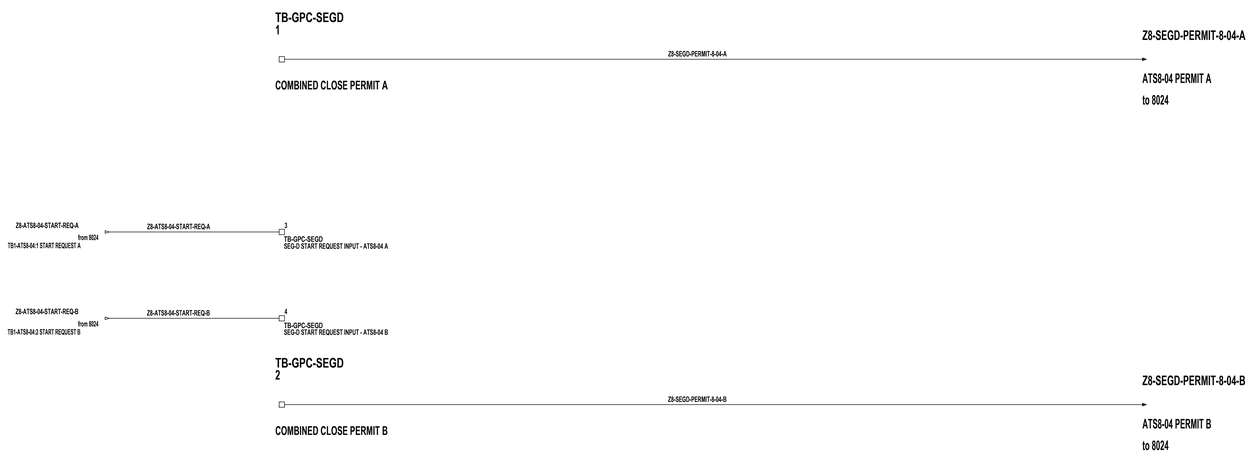
E-8034 ATS8-04 / SEG-D PLANT CONTROL INTERFACE

PATH 8-04: START TB-GPC-SEGD:3/4; CLOSE PERMISSION TB-GPC-SEGD:1/2 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-D TB-GPC-SEGD

CLOSE PERMISSION TO E8024

ATS TERMINALS: SEE E8024



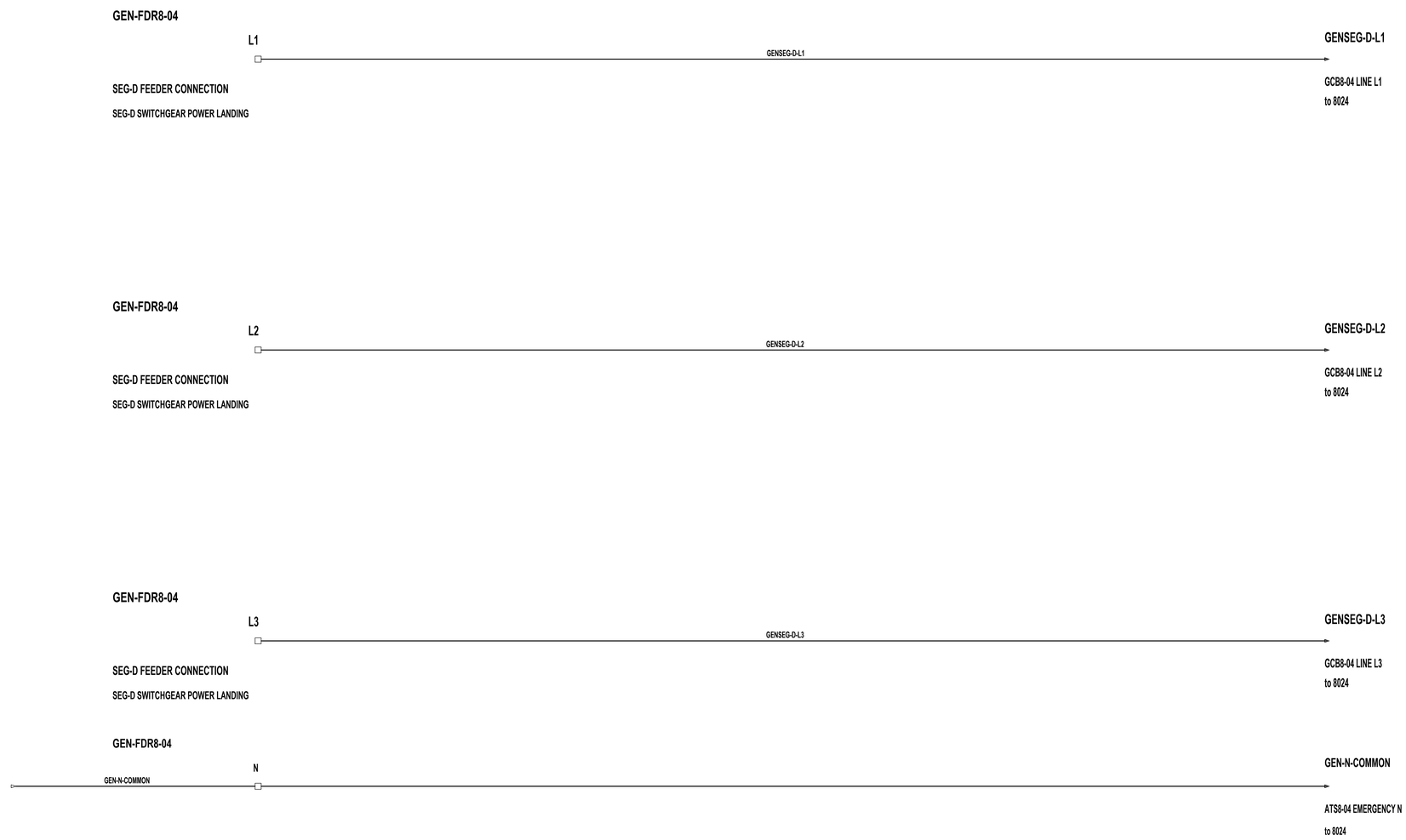
1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-04:11/12 AND TB-ATS8-04:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-04:1/2 START REQUEST IS SHOWN ON E8024.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-04 ON SEG-D ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-D EMERGENCY FEEDER / PATH 8-04

PLANT SINGLE-LINE: E203 | GCB8-04 / ATS8-04: E8024



POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC
	SEG-D TO GCB8-04
	EMERGENCY FEEDER PHASE INTERFACES
	SIZE: — | FSCM NO: — | DRAWING NUMBER: E-8044 | REV: P3
	SCALE: NTS | SHEET: 8044

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-04
L1 T1 F-3
Z8-04-PDU-IN-L1
L2 T2
Z8-04-PDU-IN-L2
L3 T3
Z8-04-PDU-IN-L3

CTRL+ CTRL-
SSWB-04-L1
STATIC BYPASS L1
SSWB-04-L2
STATIC BYPASS L2
SSWB-04-L3
STATIC BYPASS L3

Z8-ATS-UPS-04-L1 from 8024
Z8-ATS-UPS-04-L2 from 8024
Z8-ATS-UPS-04-L3 from 8024
Z8-ATS-UPS-04-N from 8024

UIB8-04
Z8-ATS-UPS-04-L1 L1 T1 Z8-04-UIB-UPS-L1
Z8-ATS-UPS-04-L2 L2 T2 Z8-04-UIB-UPS-L2
Z8-ATS-UPS-04-L3 L3 T3 Z8-04-UIB-UPS-L3

UPS8-04
UPS CONVERSION FUNCTION
480 V 3 PH
IN-L1 IN-L2 IN-L3 IN-N
DC+ DC- PE

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE
Z8-ATS-UPS-04-N

OUT-L1 Z8-04-UPS-UOI-L1
OUT-L2 Z8-04-UPS-UOI-L2
OUT-L3 Z8-04-UPS-UOI-L3

UOI8-04
L1 T1
L2 T2
L3 T3

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z8-04-UPS-DC-P
Z8-04-UPS-DC-N
Z8-04-UPS-PE

BATTERY / RFQ-07
BDI8-04
DC PROTECTION - STUDY
3-POLE STUDY | BATTERY PACKAGE
U+ U- B+ B-
Z8-04-BATT-DC-P
Z8-04-BATT-DC-N
BAT8-04
UPS8-04 BATTERY

GEN-PE-COMMON
ATS PE / E8024
from 8024
GEN-PE-COMMON

PE-UPS8-04
MODULE PE BAR
Z8-04-PDU-PE
PE-PDU8-04
PDU8-04 PE BAR
Z8-04-ITCB-OUT-PE

PDU8-04 / RFQ-16
PDU8-04 MAIN PROTECTION
3-POLE / UPS8-04 PATH
RACK FEEDER - SEE E202
3200A CLASS - STUDY

PDU8-04-Q0
L1 T1 Z8-04-PDU-BUS-L1
L2 T2 Z8-04-PDU-BUS-L2
L3 T3 Z8-04-PDU-BUS-L3

ITCB8-04
L1 T1 Z8-04-ITCB-OUT-L1
L2 T2 Z8-04-ITCB-OUT-L2
L3 T3 Z8-04-ITCB-OUT-L3

IT-OUT-8-04
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-04
1
Z8-04-UPS-ALARM-A
ALARM LEG A
TB-BMS8-04
1
ALARM LEG A

TB-UPS8-04
2
Z8-04-UPS-ALARM-B
ALARM LEG B
TB-BMS8-04
2
ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-04
AUX-A AUX-B C-2
Z8-04-MBP-CLOSED-A
9 TB-UPS8-04
9 TB-BMS8-04
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z8-04-MBP-CLOSED-B
10 TB-UPS8-04
10 TB-BMS8-04

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS8-04 / BYPASS AND PDU INTERFACES ENGINEERING STUDY UPS8-04 DETAIL COORDINATION

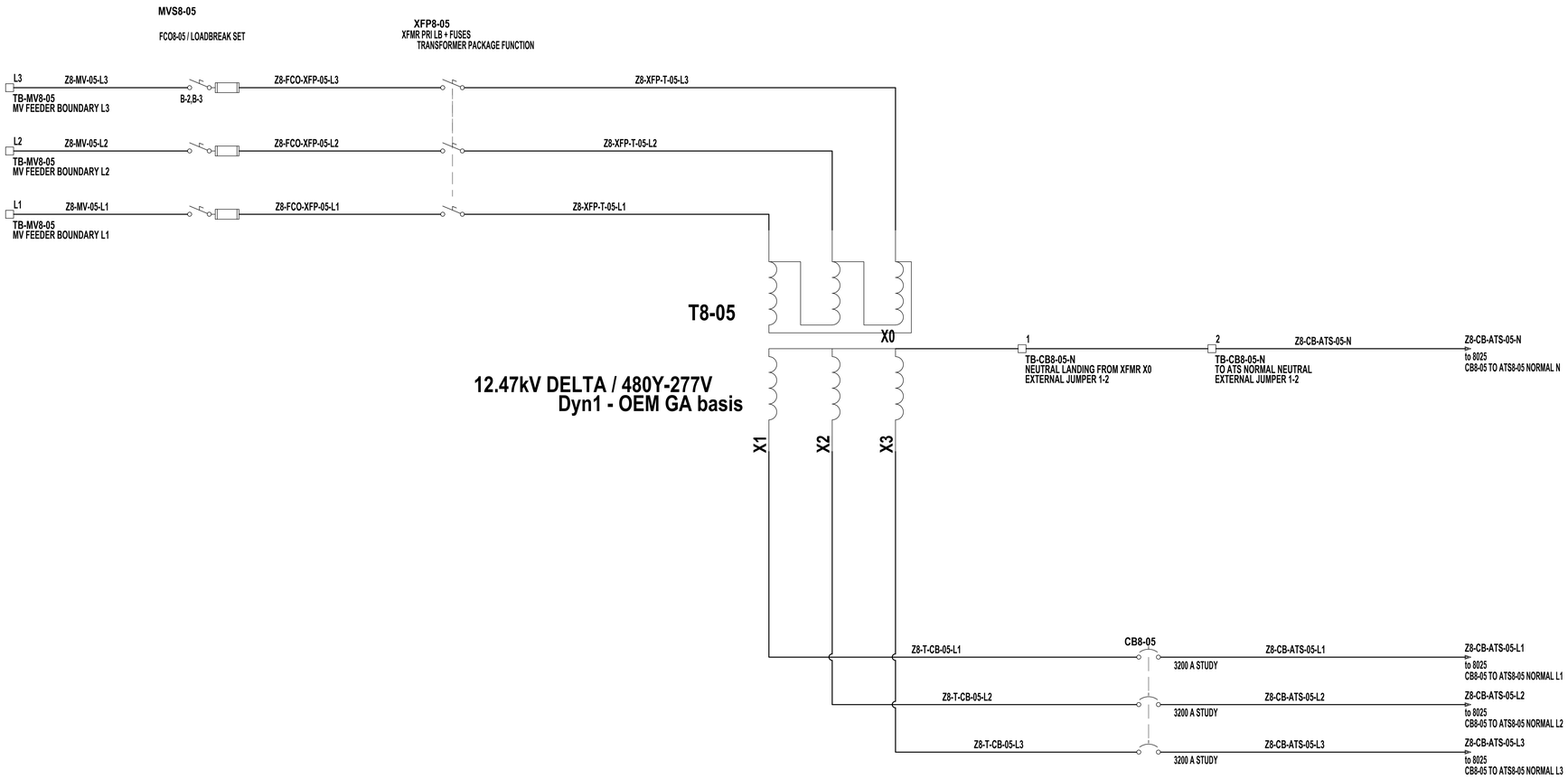
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JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-10-27

DWG NO
E-8054

SHEET NO
0F

CAD DWG FILE

TB-MV8-05 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-05 MV BRANCH TO CB8-05
FCO - XFP - T8-05 - CB8-05
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-8015

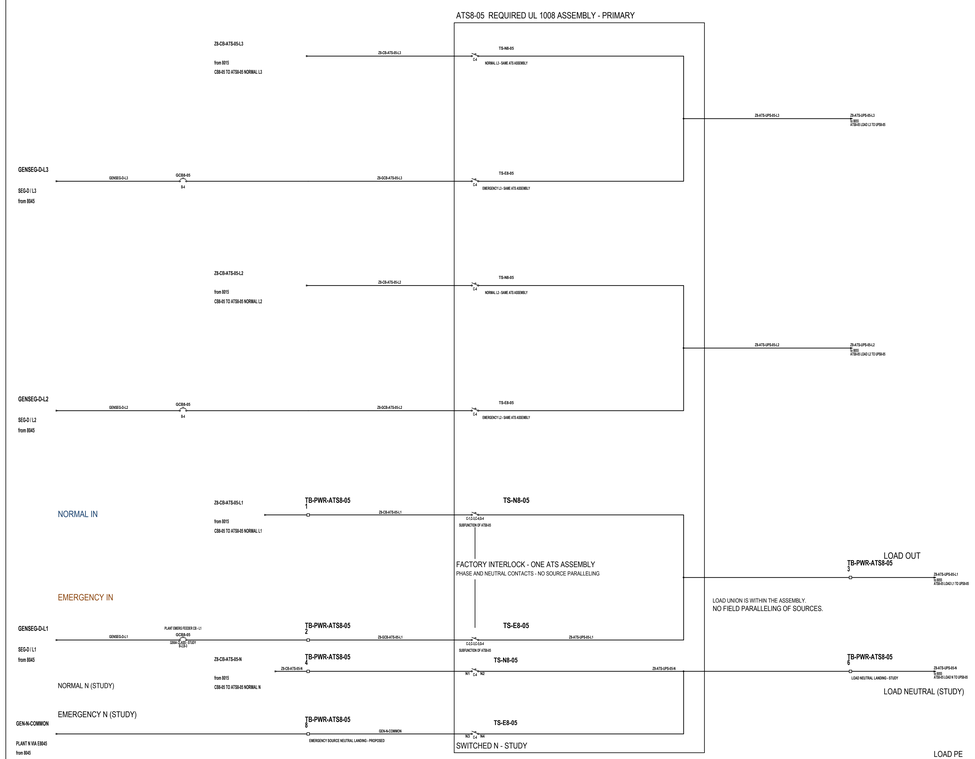
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CAD DWG FILE

E-8025 ATS8-05 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 05 REV M28-R1 2026-09-27



ATS8-05 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS8-05 13 — COMBINED CLOSE PERMIT A	TB1-ATS8-05 11 — COMBINED CLOSE PERMIT A	ZS-SEGD-PERMIT-8-05-A — SEG-D PERMIT A from B025
TB-ATS8-05 14 — COMBINED CLOSE PERMIT B	TB1-ATS8-05 12 — COMBINED CLOSE PERMIT B	ZS-SEGD-PERMIT-8-05-B — SEG-D PERMIT B from B025

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.

PROJECT EXTERNAL INTERFACE SCHEDULE

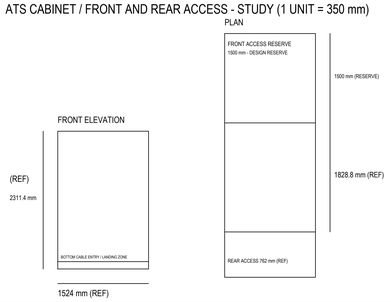
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-05 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-05 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-05 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-05. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-05, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1000 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 05
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

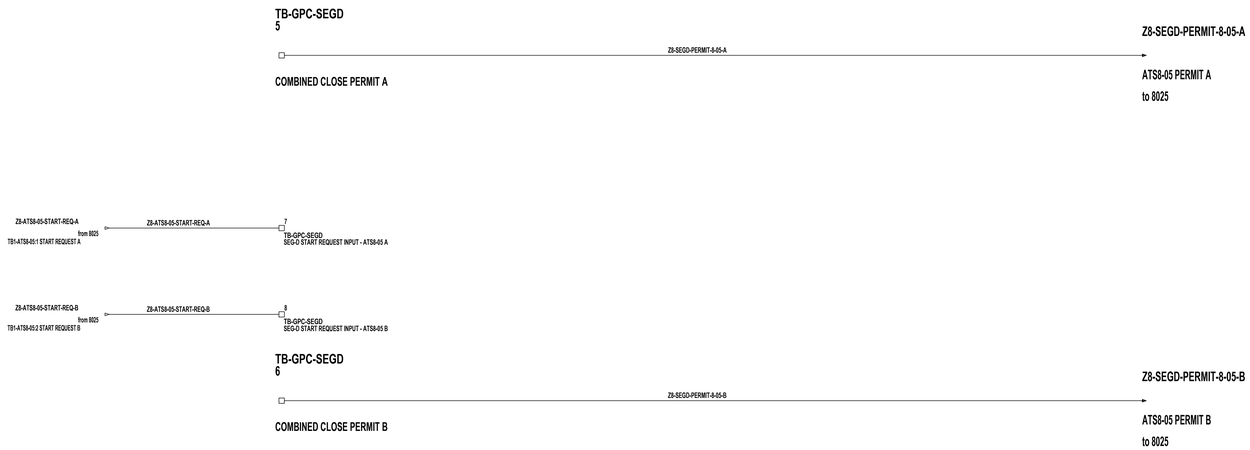
E-8035 ATS8-05 / SEG-D PLANT CONTROL INTERFACE

PATH 8-05: START TB-GPC-SEGD:7/8; CLOSE PERMISSION TB-GPC-SEGD:5/6 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-D TB-GPC-SEGD

CLOSE PERMISSION TO E8025

ATS TERMINALS: SEE E8025



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-05:11/12 AND TB-ATS8-05:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-05:1/2 START REQUEST IS SHOWN ON E8025.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-05 ON SEG-D ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-D EMERGENCY FEEDER / PATH 8-05

PLANT SINGLE-LINE: E203 | GCB8-05 / ATS8-05: E8025

GEN-FDR8-05

L1 — GENSEG-D-L1

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L1

GCB8-05 LINE L1

to 8025

GEN-FDR8-05

L2 — GENSEG-D-L2

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L2

GCB8-05 LINE L2

to 8025

GEN-FDR8-05

L3 — GENSEG-D-L3

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L3

GCB8-05 LINE L3

to 8025

GEN-FDR8-05

GEN-N-COMMON — GEN-N-COMMON — N

PLANT N / E7061

from 7061

GEN-N-COMMON

ATS8-05 EMERGENCY N

to 8025

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

K&K Data IDC

SEG-D TO GCB8-05

EMERGENCY FEEDER PHASE INTERFACES

SIZE	FSCM NO	DRAWING NUMBER	REV
		E-8045	P3
SCALE	NTS	SHEET	8045

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-05
L1 T1 F-3
Z8-05-PDU-IN-L1
L2 T2
Z8-05-PDU-IN-L2
L3 T3
Z8-05-PDU-IN-L3

CTRL+ CTRL-
SSWB-05-L1
STATIC BYPASS L1
SSWB-05-L2
STATIC BYPASS L2
SSWB-05-L3
STATIC BYPASS L3

Z8-ATS-UPS-05-L1 from 8025 — Z8-ATS-UPS-05-L1 — UIIB8-05 L1 T1 — Z8-05-UIIB-UPS-L1 — IN-L1
Z8-ATS-UPS-05-L2 from 8025 — Z8-ATS-UPS-05-L2 — L2 T2 — Z8-05-UIIB-UPS-L2 — IN-L2
Z8-ATS-UPS-05-L3 from 8025 — Z8-ATS-UPS-05-L3 — L3 T3 — Z8-05-UIIB-UPS-L3 — IN-L3
IN-N
Z8-ATS-UPS-05-N from 8025 — Z8-ATS-UPS-05-N

UPSB-05
UPS CONVERSION FUNCTION
480 V 3 PH
DC+ DC- PE

OUT-L1 — Z8-05-UPS-UOI-L1 — UOIB-05 L1 T1
OUT-L2 — Z8-05-UPS-UOI-L2 — L2 T2
OUT-L3 — Z8-05-UPS-UOI-L3 — L3 T3

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z8-05-UPS-PE
Z8-05-UPS-DC-P
Z8-05-UPS-DC-N

BATTERY / RFQ-07
BCIB-05
DC PROTECTION - STUDY
3-POLE STUDY / BATTERY PACKAGE
U+ U- B+ B-
Z8-05-BATT-DC-P
Z8-05-BATT-DC-N
BATB-05
UPS8-05 BATTERY

GEN-PE-COMMON
ATS PE / E8025
from 8025
GEN-PE-COMMON

PE-UPS8-05
MODULE PE BAR
Z8-05-PDU-PE
PE-PDU8-05
PDU8-05 PE BAR
Z8-05-ITCB-OUT-PE

PDU8-05 / RFQ-16
PDU8-05 MAIN PROTECTION
3-POLE / UPS8-05 PATH
RACK FEEDER - SEE E202
3200A CLASS - STUDY
PDU8-05-Q0 L1 T1 — Z8-05-PDU-BUS-L1 — ITCB8-05 L1 T1 — Z8-05-ITCB-OUT-L1 — IT-OUT-8-05 L1
L2 T2 — Z8-05-PDU-BUS-L2 — L2 T2 — Z8-05-ITCB-OUT-L2 — L2
L3 T3 — Z8-05-PDU-BUS-L3 — L3 T3 — Z8-05-ITCB-OUT-L3 — L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-05 1 — Z8-05-UPS-ALARM-A — TB-BMS8-05 1
ALARM LEG A — ALARM LEG A

TB-UPS8-05 2 — Z8-05-UPS-ALARM-B — TB-BMS8-05 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-05
AUX-A C-2 AUX-B — Z8-05-MBP-CLOSED-A — 9 TB-UPS8-05 — 9 TB-BMS8-05
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z8-05-MBP-CLOSED-B — 10 TB-UPS8-05 — 10 TB-BMS8-05

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

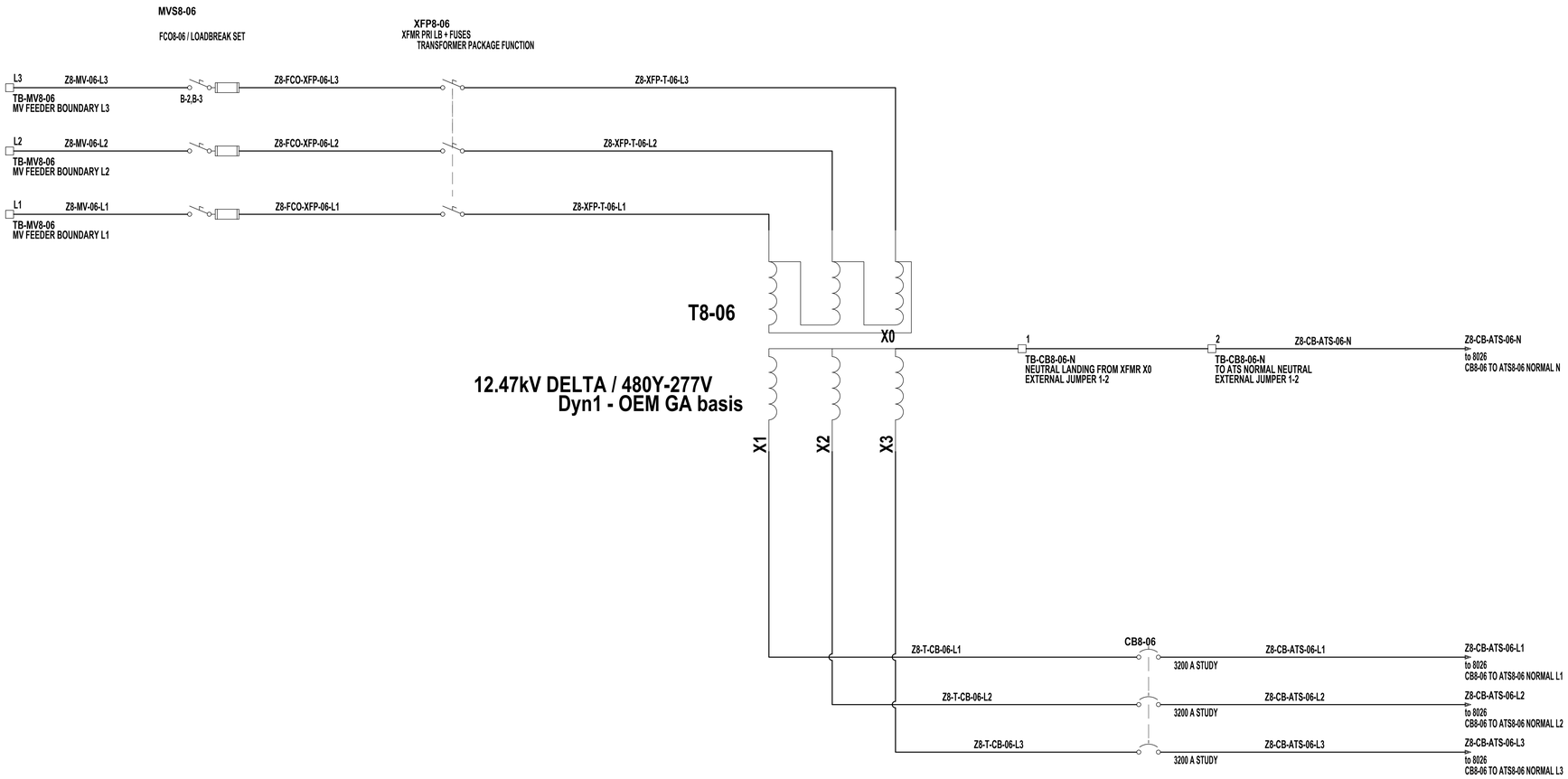
DWG TITLE

UPS8-05 / BYPASS AND PDU INTERFACES ENGINEERING STUDY
UPS8-05 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-10-27
DWG NO: *E-8055*	
SHEET NO: *OF*	

CAD DWG FILE

TB-MV8-06 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-06 MV BRANCH TO CB8-06
FCO - XFP - T8-06 - CB8-06
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-8016

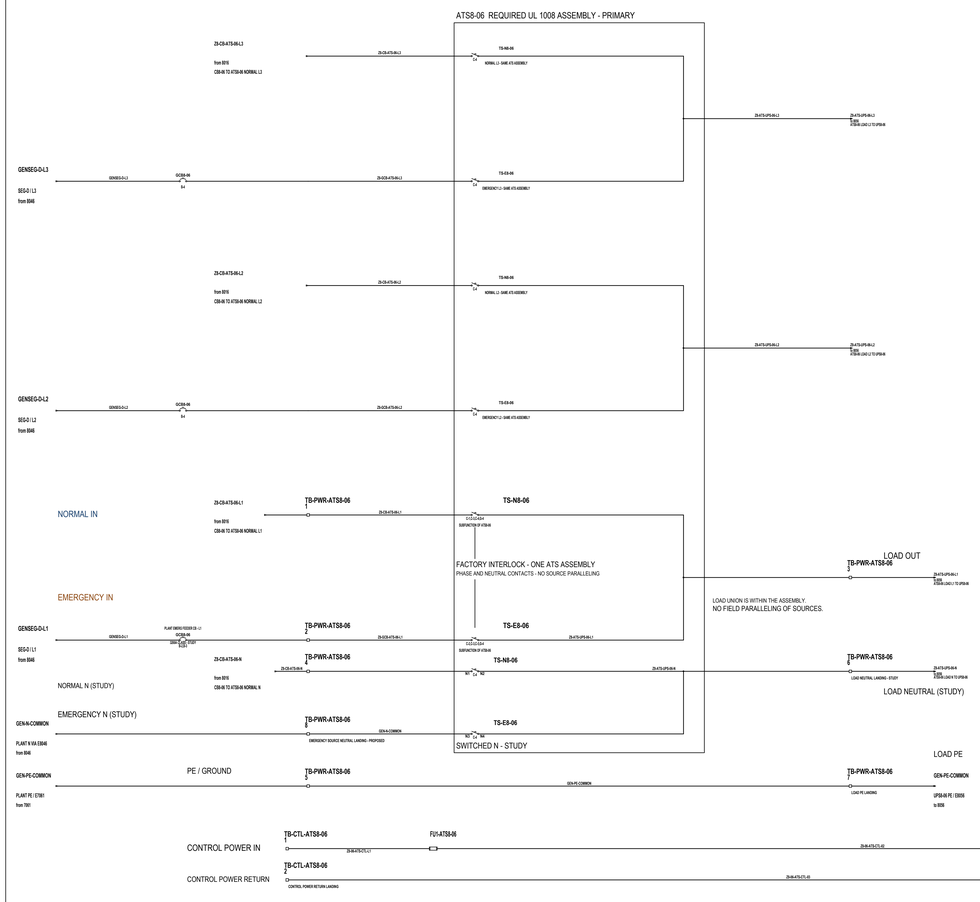
SHEET NO

OF

CAD DWG FILE

E-8026 ATS8-06 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 06 REV M28-R1 2026-09-27

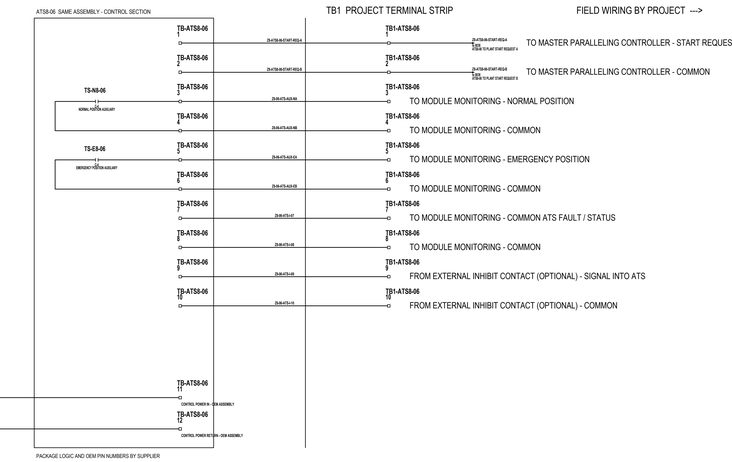


ATS8-06 CLOSE PERMISSION - PROJECT TERMINALS / M25

STUDY: ONE TWO-WIRE PERMISSION CIRCUIT; A/B IDENTIFY CONDUCTORS.

TB-ATS8-06 13 — COMBINED CLOSE PERMIT A	TB1-ATS8-06 11 — COMBINED CLOSE PERMIT A	ZA-SEGO-PERMIT-8-06-A → SEG-O PERMIT A from 8036
TB-ATS8-06 14 — COMBINED CLOSE PERMIT B	TB1-ATS8-06 12 — COMBINED CLOSE PERMIT B	ZB-SEGO-PERMIT-8-06-B → SEG-O PERMIT B from 8036

LOSS BLOCKS NEW EMERGENCY ADMISSION; DOES NOT DIRECTLY TRIP A SUPPLIED PATH.



PROJECT EXTERNAL INTERFACE SCHEDULE

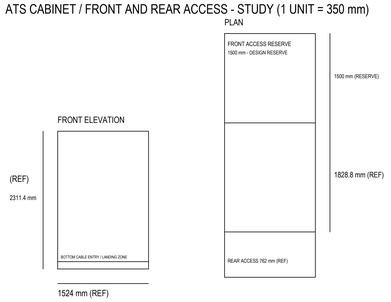
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-06 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-06 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-06 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-06. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-06, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 06
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

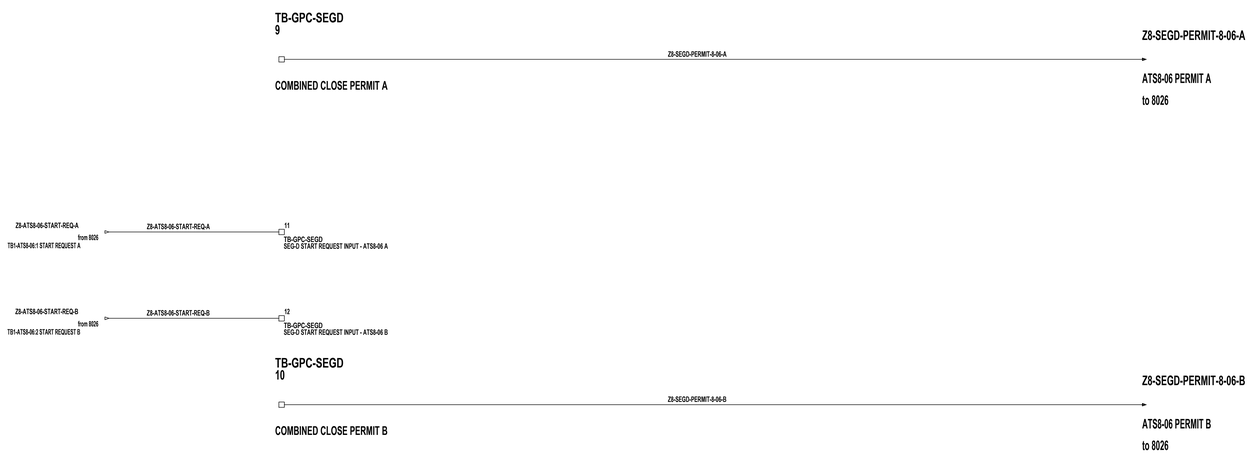
E-8036 ATS8-06 / SEG-D PLANT CONTROL INTERFACE

PATH 8-06: START TB-GPC-SEGD:11/12; CLOSE PERMISSION TB-GPC-SEGD:9/10 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-D TB-GPC-SEGD

CLOSE PERMISSION TO E8026

ATS TERMINALS: SEE E8026



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-06:11/12 AND TB-ATS8-06:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-06:1/2 START REQUEST IS SHOWN ON E8026.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-06 ON SEG-D ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS				
	P3			

SEG-D EMERGENCY FEEDER / PATH 8-06

PLANT SINGLE-LINE: E203 | GCB8-06 / ATS8-06: E8026

GEN-FDR8-06

L1 — GENSEG-D-L1

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L1

GCB8-06 LINE L1

to 8026

GEN-FDR8-06

L2 — GENSEG-D-L2

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L2

GCB8-06 LINE L2

to 8026

GEN-FDR8-06

L3 — GENSEG-D-L3

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L3

GCB8-06 LINE L3

to 8026

GEN-FDR8-06

GEN-N-COMMON — GEN-N-COMMON — N

PLANT N / E7061

from 7061

GEN-N-COMMON

ATS8-06 EMERGENCY N

to 8026

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC		
	SEG-D TO GCB8-06 EMERGENCY FEEDER PHASE INTERFACES		
	SIZE	FSCM NO	DRAWING NUMBER: E-8046 — REV: P3
	SCALE: NTS		SHEET: 8046

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-06
L1 T1 F-3
Z8-06-PDU-IN-L1
L2 T2
Z8-06-PDU-IN-L2
L3 T3
Z8-06-PDU-IN-L3

CTRL+ CTRL-
SSWB-06-L1
STATIC BYPASS L1
SSWB-06-L2
STATIC BYPASS L2
SSWB-06-L3
STATIC BYPASS L3

Z8-ATS-UPS-06-L1 from 8026
Z8-ATS-UPS-06-L2 from 8026
Z8-ATS-UPS-06-L3 from 8026
Z8-ATS-UPS-06-N from 8026

UIB8-06
Z8-ATS-UPS-06-L1 L1 T1 Z8-06-UIB-UPS-L1 IN-L1
Z8-ATS-UPS-06-L2 L2 T2 Z8-06-UIB-UPS-L2 IN-L2
Z8-ATS-UPS-06-L3 L3 T3 Z8-06-UIB-UPS-L3 IN-L3
IN-N

UPS8-06
UPS CONVERSION FUNCTION
480 V 3 PH
DC+ DC- PE

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE
Z8-ATS-UPS-06-N

Z8-06-UPS-DC-P
Z8-06-UPS-DC-N
Z8-06-UPS-PE

OUT-L1 Z8-06-UPS-UOI-L1 UOI8-06 L1 T1
OUT-L2 Z8-06-UPS-UOI-L2 L2 T2
OUT-L3 Z8-06-UPS-UOI-L3 L3 T3

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

BATTERY / RFQ-07
BDI8-06
DC PROTECTION - STUDY
3-POLE STUDY | BATTERY PACKAGE
U+ U- B+ B-
Z8-06-BATT-DC-P
Z8-06-BATT-DC-N
BAT8-06
UPS8-06 BATTERY

GEN-PE-COMMON
ATS PE / E8026
from 8026
GEN-PE-COMMON

PE-UPS8-06
MODULE PE BAR
Z8-06-PDU-PE
PE-PDU8-06
PDU8-06 PE BAR
Z8-06-ITCB-OUT-PE

PDU8-06 / RFQ-16
PDU8-06 MAIN PROTECTION
3-POLE / UPS8-06 PATH
RACK FEEDER - SEE E202
3200A CLASS - STUDY

PDU8-06-Q0 L1 T1 Z8-06-PDU-BUS-L1
PDU8-06-Q0 L2 T2 Z8-06-PDU-BUS-L2
PDU8-06-Q0 L3 T3 Z8-06-PDU-BUS-L3

ITCB8-06
L1 T1 Z8-06-ITCB-OUT-L1
L2 T2 Z8-06-ITCB-OUT-L2
L3 T3 Z8-06-ITCB-OUT-L3

IT-OUT-8-06
L1
L2
L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-06 1 — Z8-06-UPS-ALARM-A — TB-BMS8-06 1
ALARM LEG A — ALARM LEG A

TB-UPS8-06 2 — Z8-06-UPS-ALARM-B — TB-BMS8-06 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-06
AUX-A C-2 AUX-B
Z8-06-MBP-CLOSED-A
9 TB-UPS8-06 — 9 TB-BMS8-06
MBP CLOSED INDICATION
AUX CONTACT - STUDY
Z8-06-MBP-CLOSED-B
10 TB-UPS8-06 — 10 TB-BMS8-06

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE
UPS8-06 / BYPASS AND PDU INTERFACES ENGINEERING STUDY
UPS8-06 DETAIL COORDINATION

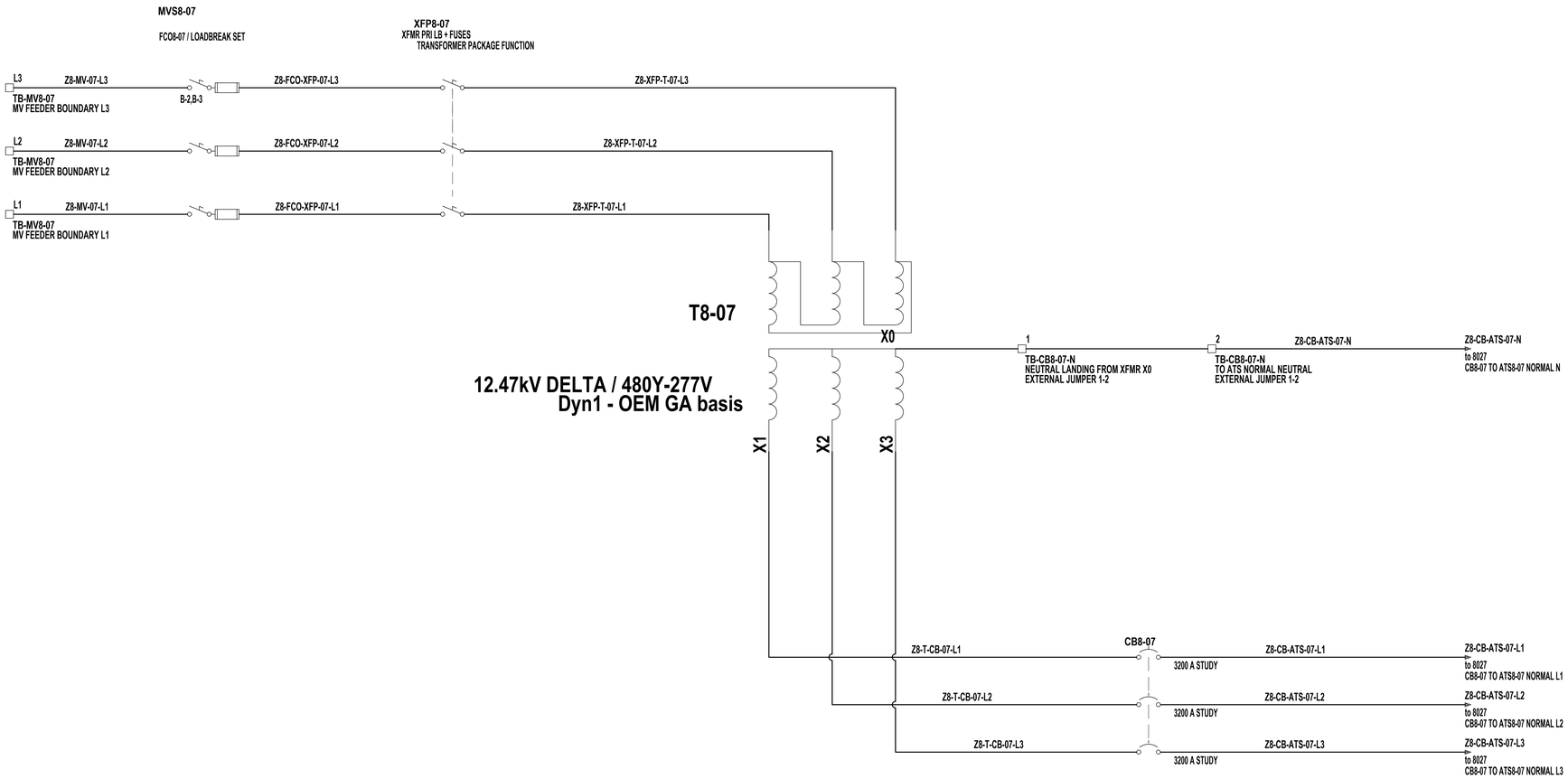
ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO
E-8056

SHEET NO
OF

CAD DWG FILE

TB-MV8-07 L1/L2/L3 - PROJECT MV BRANCH BOUNDARY, 12.47KV DESIGN BASIS.
DESIGN INTERFACE; HARDWARE SELECTION AND UTILITY DEMARCATION REQUIRED.



NO.	DATE	REVISION	BY

DWG TITLE

PATH 8-07 MV BRANCH TO CB8-07
FCO - XFP - T8-07 - CB8-07
ENGINEERING STUDY
PUBLIC P3 / 2026-10

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-09-27

DWG NO

E-8017

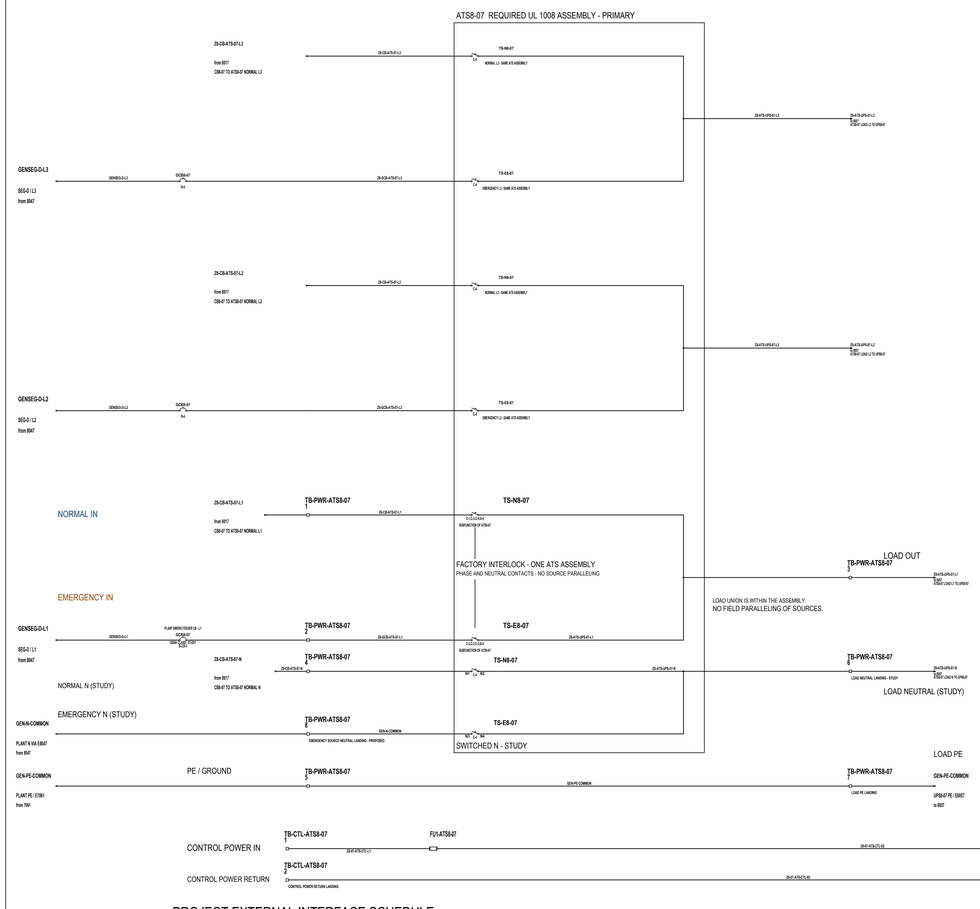
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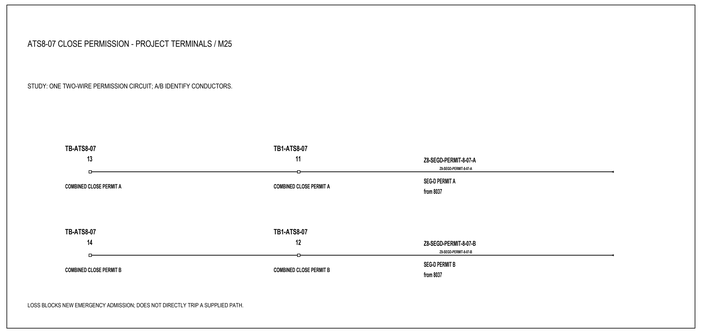
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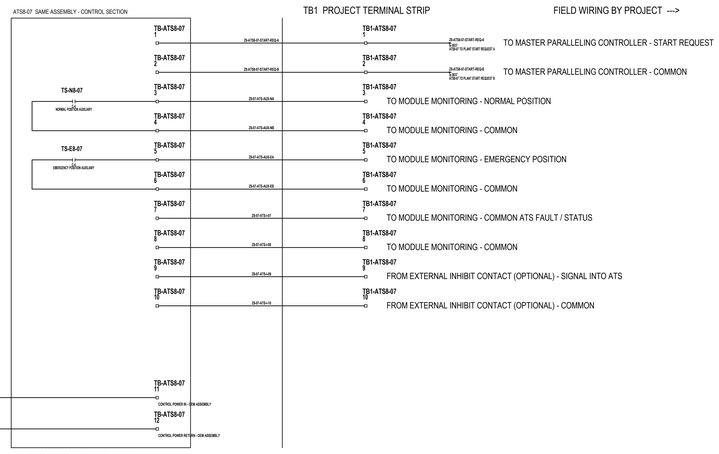
CAD DWG FILE

E-8027 ATS8-07 PRIMARY, EXTERNAL INTERFACES AND PROJECT TERMINALS

ZONE 8 / PATH 07 REV M28-R1 2026-09-27







PROJECT EXTERNAL INTERFACE SCHEDULE

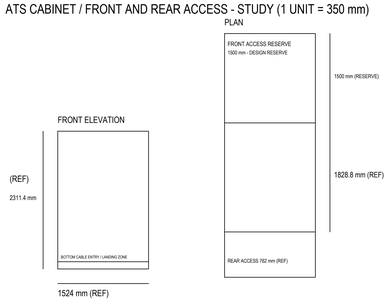
PROJECT ENDPOINTS; OEM PIN MAP BY SUPPLIER. CLOSE PERMISSION TB1 11/12 TO ATS 13/14; SEE UPPER-RIGHT DETAIL.

TB1	INTERFACE	SIGNAL	DIRECTION	BOUNDARY / SCOPE
1 / 2	GENSET START REQUEST	DRY CONTACT, NO VOLTAGE APPLIED BY ATS	ATS ---> MASTER PARALLELING CONTROLLER	CONTACT AND PINS BY OEM; TB1 AND FIELD WIRING BY PROJECT
3 / 4	NORMAL POSITION	DRY CONTACT FROM TS-N8-07 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
5 / 6	EMERGENCY POSITION	DRY CONTACT FROM TS-E8-07 AUXILIARY	ATS ---> MODULE MONITORING	POSITION ONLY; SOURCE SENSING SEPARATE
7 / 8	COMMON ATS FAULT / STATUS	DRY CONTACT FROM OEM CONTROLLER	ATS ---> MODULE MONITORING	CONTACT FORM AND PINS BY OEM
9 / 10	REMOTE TRANSFER INHIBIT (OPTIONAL)	DRY CONTACT INTO OEM CONTROLLER INPUT	FIELD ---> ATS	REQUIRES DESIGN REVIEW: A BROKEN WIRE MUST NOT SILENTLY INHIBIT ALL EMERGENCY TRANSFER
TB-CTL 1 / 2	ATS CONTROL POWER	CONTROL VOLTAGE - VALUE TO BE CONFIRMED BY OEM	PROJECT ---> ATS	CONTROL-POWER LOSS BEHAVIOUR: OEM DEFINITION AND TEST
TB-PWR 1..8	NORMAL, EMERGENCY, LOAD, NEUTRAL (STUDY), PE	POWER LANDING	FIELD <---> ATS	AI-COMPATIBLE TERMINATION CAPACITY REQUIRED - SEE STUDY ENVELOPE

NOTES

1. ATS8-07 SHALL BE ONE UL 1008 LISTED ASSEMBLY. PHASE AND NEUTRAL SWITCHING FUNCTIONS SHALL HAVE OEM MECHANICAL AND ELECTRICAL INTERLOCKING. TWO INDEPENDENT BREAKERS ARE NOT A TRANSFER SWITCH.
2. THE LOAD UNION IS WITHIN THE ASSEMBLY. NO FIELD PARALLELING OF THE NORMAL AND EMERGENCY SOURCES IS SHOWN OR PERMITTED. TRANSFER IS OPEN TRANSITION: THE OLD SOURCE IS RELEASED BEFORE THE NEW SOURCE IS CLOSED.
3. SOURCE SENSING, START / TRANSFER / RETRANSFER AND COOLDOWN TIMING: OEM FUNCTIONAL AND CONTROL-WIRING SCOPE.
4. OEM REQUIREMENT: MAINTAIN START CALL WHILE THE NORMAL SOURCE IS UNACCEPTABLE; VERIFY CONTROLLER BEHAVIOUR.
5. PROJECT TERMINAL IDs DEFINE FUNCTIONS. OEM CONTROLLER PIN MAP IS REQUIRED TO COMPLETE FIELD-WIRING DETAILS.
6. GENSET START IS A REQUEST TO THE MASTER PARALLELING CONTROLLER, NOT A DIRECT START COMMAND TO ONE GENERATOR SET.
7. POSITION FEEDBACK REPORTS SWITCH POSITION ONLY; SOURCE AVAILABILITY REQUIRES SEPARATE SENSING.
8. NORMAL SOURCE PROTECTION AND ISOLATION: CB8-07. SEE E108 AND CURRENT INSTALLATION DRAWINGS. EMERGENCY FEEDER PROTECTION AND ISOLATION: GCB8-07, SEE E108 / E203. FEEDER FUNCTIONS FORM PART OF THE PROTECTION ASSEMBLIES.
9. ISOLATING ONE SOURCE DOES NOT MAKE THIS EQUIPMENT SAFE. ISOLATE AND LOCK NORMAL AND EMERGENCY SOURCES AND ALL CONTROL AND AUXILIARY SUPPLIES, THEN VERIFY ABSENCE OF VOLTAGE BY A QUALIFIED PERSON.
10. DESIGN DEVELOPMENT. ATS OEM SELECTION REQUIRED; OEM DATA ARE COORDINATION REFERENCES.

ATS CABINET / FRONT AND REAR ACCESS - STUDY (1 UNIT = 350 mm)



REFERENCE: OEM TYPE 1 U-FRAME; 1524 W x 1828.8 D x 2311.4 H mm.
PHYSICAL COORDINATION REFERENCE; OFFERED OEM OUTLINE TO MATCH BEFORE PROCUREMENT.
FRONT: 1500 mm PROJECT RESERVE. REAR: 762 mm MANUFACTURER REFERENCE MINIMUM.
ACTUAL WORKING CLEARANCE AND ACCESS DEPEND ON INSTALLATION AND OEM REQUIREMENTS.
BOTTOM ENTRY REFERENCE: 1371.6 x 609.6 mm; ENTRY POSITION PER OEM REFERENCE DRAWING.
INPUT STUDY: 9 x 750 kcmil Al/PH; 12 x 600 ALTERNATIVE. OEM LUG MATCH REQUIRED.
ATS-UPS STUDY: 12 x 600 kcmil Al/PH. FINAL N/PE AND AMPACITY PER PORT SCHEDULE.
FINAL WCR / PROTECTION COMBINATION BY OEM.

PROJECT: K&K Data IDC - ZONE 8 - PATH 07
DRAWING: ATS PRIMARY / EXTERNAL INTERFACES
REV: M28-R1 DATE: 2026-09-27 SHEET 1 OF 1 SCALE: NOT TO SCALE

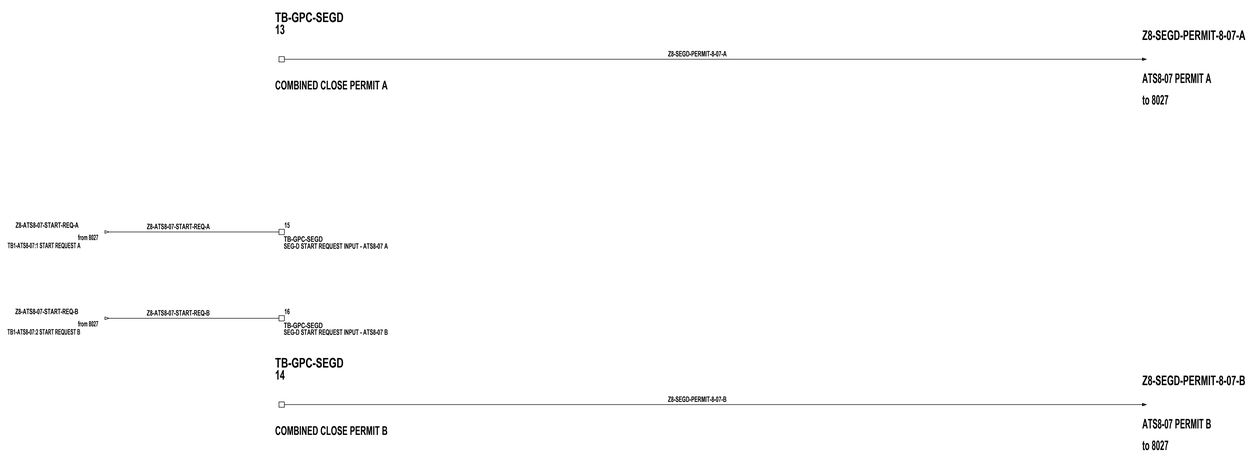
E-8037 ATS8-07 / SEG-D PLANT CONTROL INTERFACE

PATH 8-07: START TB-GPC-SEGD:15/16; CLOSE PERMISSION TB-GPC-SEGD:13/14 PER E205 M28-R1 2026-09-27

GENERATOR PLANT SEG-D TB-GPC-SEGD

CLOSE PERMISSION TO E8027

ATS TERMINALS: SEE E8027



1. ONE INTEGRATED PERMIT PER PATH: THE PLANT CAPACITY DECLARATION AND THE STAGED CLOSE PERMIT ARE CARRIED IN THIS ONE PAIR.
2. THE PERMIT IS VALID ONLY WHILE THE GENERATOR BUS IS QUALIFIED AND SUFFICIENT AVAILABLE CAPACITY EXISTS AND THIS PATH HOLDS ITS ASSIGNED LOAD STEP. PLANT DESIGN DEFINES BUS QUALIFICATION AND AVAILABLE kVA FOR CLOSE PERMISSION.
3. LOSS OF THE PERMIT BLOCKS A NEW CLOSE ONLY; IT DOES NOT TRIP AN ALREADY CONNECTED PATH. FAULT AND POSITION INTERLOCKS REMAIN PRIORITY.
4. SPECIFY AN ISOLATED OEM RECEIVING INPUT. SUPPLY ARRANGEMENT AND CONTACT RATINGS BY OEM.
5. TB1-ATS8-07:11/12 AND TB-ATS8-07:13/14 ARE PROJECT TERMINALS, NOT OEM CONTROLLER PINS. TB1-ATS8-07:1/2 START REQUEST IS SHOWN ON E8027.
6. MODULE RETURN DELAYS ARE NOT AN AC INPUT POWER LIMIT; STEP LOAD AND RECHARGE REQUIRE COORDINATION.
7. START REQUEST GOES TO THE PARALLEL-PLANT CONTROLLER. CONTACT RATINGS AND CONTROL SUPPLY REQUIRE OEM MATCH.
8. PATH 8-07 ON SEG-D ONLY. OTHER PATHS HAVE SEPARATE CONTROL INTERFACES.
9. DESIGN DEVELOPMENT / OEM CONTROL INTEGRATION REQUIRED.

REVISIONS

	P3			

SEG-D EMERGENCY FEEDER / PATH 8-07

PLANT SINGLE-LINE: E203 | GCB8-07 / ATS8-07: E8027

GEN-FDR8-07

L1 — GENSEG-D-L1

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L1

GCB8-07 LINE L1

to 8027

GEN-FDR8-07

L2 — GENSEG-D-L2

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L2

GCB8-07 LINE L2

to 8027

GEN-FDR8-07

L3 — GENSEG-D-L3

SEG-D FEEDER CONNECTION

SEG-D SWITCHGEAR POWER LANDING

GENSEG-D-L3

GCB8-07 LINE L3

to 8027

GEN-FDR8-07

GEN-N-COMMON — GEN-N-COMMON — N

PLANT N / E7061

from 7061

GEN-N-COMMON

ATS8-07 EMERGENCY N

to 8027

POWER LANDINGS INDICATE SWITCHGEAR CONNECTIONS, NOT ADDITIONAL TERMINAL BLOCKS.

PLANT N / SINGLE BOND: E7061. ATS SWITCHED N; UPS PACKAGE NEUTRAL CONDITIONS REMAIN OPEN.

	K&K Data IDC
	SEG-D TO GCB8-07
	EMERGENCY FEEDER PHASE INTERFACES
SIZE	FSCM NO / DRAWING NUMBER E-8047 / REV P3
SCALE NTS	SHEET 8047

2026-09-27

A | B | C | D | E | F | G | H | I | J

1 2 3 4 5 6 7 8

UPS SUPPLY SCOPE / RFQ-06

MAINTENANCE BYPASS
UPS PACKAGE | 3-POLE

MBP8-07
L1 T1 F-3
Z8-07-PDU-IN-L1
L2 T2
Z8-07-PDU-IN-L2
L3 T3
Z8-07-PDU-IN-L3

CTRL+ CTRL-
SSW8-07-L1
STATIC BYPASS L1

CTRL+ CTRL-
SSW8-07-L2
STATIC BYPASS L2

CTRL+ CTRL-
SSW8-07-L3
STATIC BYPASS L3

Z8-ATS-UPS-07-L1 from 8027 — Z8-ATS-UPS-07-L1 — UIB8-07 L1 T1 — Z8-07-UIB-UPS-L1 — IN-L1
Z8-ATS-UPS-07-L2 from 8027 — Z8-ATS-UPS-07-L2 — L2 T2 — Z8-07-UIB-UPS-L2 — IN-L2
Z8-ATS-UPS-07-L3 from 8027 — Z8-ATS-UPS-07-L3 — L3 T3 — Z8-07-UIB-UPS-L3 — IN-L3
Z8-ATS-UPS-07-N from 8027 — Z8-ATS-UPS-07-N — IN-N

UPS8-07
UPS CONVERSION FUNCTION
480 V 3 PH
DC+ DC- PE

OUT-L1 — Z8-07-UPS-UOI-L1 — UOI8-07 L1 T1
OUT-L2 — Z8-07-UPS-UOI-L2 — L2 T2
OUT-L3 — Z8-07-UPS-UOI-L3 — L3 T3

COMMON INPUT ISOLATOR
3-POLE / UPS PACKAGE

UPS OUTPUT ISOLATOR
3-POLE / UPS PACKAGE

Z8-07-UPS-PE
Z8-07-UPS-DC-P
Z8-07-UPS-DC-N

BATTERY / RFQ-07

BDI8-07
DC PROTECTION - STUDY
3-POLE STUDY | BATTERY PACKAGE
U+ U- B+ B-
Z8-07-BATT-DC-P
Z8-07-BATT-DC-N
BATB-07
UPS8-07 BATTERY

GEN-PE-COMMON
ATS PE / E8027
from 8027
GEN-PE-COMMON

PE-UPS8-07
MODULE PE BAR
Z8-07-PDU-PE
PE-PDU8-07
PDU8-07 PE BAR
Z8-07-ITCB-OUT-PE

PDU8-07 / RFQ-16

PDU8-07 MAIN PROTECTION
3-POLE / UPS8-07 PATH

RACK FEEDER - SEE E202
3200A CLASS - STUDY

PDU8-07-Q0 L1 T1 — Z8-07-PDU-BUS-L1 — ITCB8-07 L1 T1 — Z8-07-ITCB-OUT-L1 — IT-OUT-8-07 L1
PDU8-07-Q0 L2 T2 — Z8-07-PDU-BUS-L2 — ITCB8-07 L2 T2 — Z8-07-ITCB-OUT-L2 — L2
PDU8-07-Q0 L3 T3 — Z8-07-PDU-BUS-L3 — ITCB8-07 L3 T3 — Z8-07-ITCB-OUT-L3 — L3
PE

OUTPUT POINTS: ENGINEERED LANDINGS, NOT DIN TERMINALS
NEUTRAL REQUIREMENT TO BE RESOLVED SEPARATELY; PE IS NOT NEUTRAL

UPS COMMON ALARM - MONITORING ONLY

TB-UPS8-07 1 — Z8-07-UPS-ALARM-A — TB-BMS8-07 1
ALARM LEG A — ALARM LEG A

TB-UPS8-07 2 — Z8-07-UPS-ALARM-B — TB-BMS8-07 2
ALARM LEG B — ALARM LEG B

MBP POSITION FEEDBACK - MONITOR ONLY
PROJECT FIELD TERMINALS / OEM OUTPUT AND BMS INPUT MAPPING REQUIRED

MBP8-07
AUX-A C-2 AUX-B — Z8-07-MBP-CLOSED-A — 9 TB-UPS8-07 — 9 TB-BMS8-07
MBP CLOSED INDICATION
AUX CONTACT - STUDY

Z8-07-MBP-CLOSED-B — 10 TB-UPS8-07 — 10 TB-BMS8-07

OPEN LOOP MAY MEAN OPEN CONTACT OR WIRING FAULT
AUX-A/B ARE LOGICAL PINS; OEM CONTACT / WETTING TO RETURN

NO.	DATE	REVISION	BY

DWG TITLE

UPS8-07 / BYPASS AND PDU INTERFACES ENGINEERING STUDY
UPS8-07 DETAIL COORDINATION

ENGINEER	CHECKED BY
JOB NO: KK-RD	DRAWN BY
SCALE: No Scale	DATE: 2026-10-27
DWG NO: *E-8057*	
SHEET NO: *OF*	

CAD DWG FILE

REVISIONS			
P3	CDU INPUT DEVELOPMENT	2026-09-28	

E-901 | CU-01 | CDU-01A + CDU-01B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-01 | INDIVIDUAL CDU INPUT

Z7-CDU-01 → Z7-CDU-01 → HOLD → CDU-01A-P → PREFERRED → HOLD

ZONE-7 / CU-01 / QF-CDU-01A-P

ZONE-7 / CU-01 / CDU-01A

UPS7-01
from 107-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-01A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-02 | INDIVIDUAL CDU INPUT

Z7-CDU-02 → Z7-CDU-02 → HOLD → CDU-01A-A → ALTERNATE → HOLD

ZONE-7 / CU-01 / QF-CDU-01A-A

ZONE-7 / CU-01 / CDU-01A

UPS7-02
from 107-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-01A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-02 | HOT_STANDBY

Z7-CDU-02 → Z7-CDU-02 → HOLD → CDU-01B-P → PREFERRED → HOLD

ZONE-7 / CU-01 / QF-CDU-01B-P

ZONE-7 / CU-01 / CDU-01B

UPS7-02
from 107-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-01B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-01 | HOT_STANDBY

Z7-CDU-01 → Z7-CDU-01 → HOLD → CDU-01B-A → ALTERNATE → HOLD

ZONE-7 / CU-01 / QF-CDU-01B-A

ZONE-7 / CU-01 / CDU-01B

UPS7-01
from 107-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-01B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-01. 480V 3ph 60Hz requirement.

	K&K Data
	CU-01 CDU INPUTS
	PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-901	P3
SCALE	NTS	SHEET	901

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-902 | CU-02 | CDU-02A + CDU-02B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-02 | DUTY

Z7-CDU-02

UPS7-02
from 107-I-3

Z7-CDU-02

ZONE-7
CU-02
QF-CDU-02A-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-02A-P

PREFERRED

HOLD

ZONE-7
CU-02
CDU-02A

CDU-02A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-03 | DUTY

Z7-CDU-03

UPS7-03
from 107-I-4

Z7-CDU-03

ZONE-7
CU-02
QF-CDU-02A-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-02A-A

ALTERNATE

HOLD

ZONE-7
CU-02
CDU-02A

CDU-02A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-03 | HOT_STANDBY

Z7-CDU-03

UPS7-03
from 107-I-4

Z7-CDU-03

ZONE-7
CU-02
QF-CDU-02B-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-02B-P

PREFERRED

HOLD

ZONE-7
CU-02
CDU-02B

CDU-02B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-02 | HOT_STANDBY

Z7-CDU-02

UPS7-02
from 107-I-3

Z7-CDU-02

ZONE-7
CU-02
QF-CDU-02B-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-02B-A

ALTERNATE

HOLD

ZONE-7
CU-02
CDU-02B

CDU-02B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-02. 480V 3ph 60Hz requirement.

K&K Data

CU-02 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-902	P3
SCALE NTS		SHEET 902	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-903 | CU-03 | CDU-03A + CDU-03B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-03 | DUTY

Z7-CDU-03 — Z7-CDU-03 — HOLD — ZONE-7 CU-03 QF-CDU-03A-P — CDU-03A-P — PREFERRED — HOLD — ZONE-7 CU-03 CDU-03A

UPS7-03
from 107-I-4

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-03A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-04 | DUTY

Z7-CDU-04 — Z7-CDU-04 — HOLD — ZONE-7 CU-03 QF-CDU-03A-A — CDU-03A-A — ALTERNATE — HOLD — ZONE-7 CU-03 CDU-03A

UPS7-04
from 107-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-03A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-04 | HOT_STANDBY

Z7-CDU-04 — Z7-CDU-04 — HOLD — ZONE-7 CU-03 QF-CDU-03B-P — CDU-03B-P — PREFERRED — HOLD — ZONE-7 CU-03 CDU-03B

UPS7-04
from 107-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-03B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-03 | HOT_STANDBY

Z7-CDU-03 — Z7-CDU-03 — HOLD — ZONE-7 CU-03 QF-CDU-03B-A — CDU-03B-A — ALTERNATE — HOLD — ZONE-7 CU-03 CDU-03B

UPS7-03
from 107-I-4

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-03B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-03. 480V 3ph 60Hz requirement.

	K&K Data
	CU-03 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-903
REV	P3
SCALE	NTS
SHEET	903

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-904 | CU-04 | CDU-04A + CDU-04B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-04 | DUTY



STUDY | ALTERNATE | UPS7-05 | DUTY



STUDY | PREFERRED | UPS7-05 | HOT_STANDBY



STUDY | ALTERNATE | UPS7-04 | HOT_STANDBY



Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-04. 480V 3ph 60Hz requirement.

	K&K Data
	CU-04 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-904
REV	P3
SCALE	NTS
SHEET	904

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-905 | CU-05 | CDU-05A + CDU-05B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-05 | DUTY

ZONE-7
CU-05
QF-CDU-05A-P

Z7-CDU-05

Z7-CDU-05 — HOLD — CDU-05A-P — PREFERRED — HOLD

ZONE-7
CU-05
CDU-05A

UPS7-05
from 107-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-05A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-04 | DUTY

ZONE-7
CU-05
QF-CDU-05A-A

Z7-CDU-04

Z7-CDU-04 — HOLD — CDU-05A-A — ALTERNATE — HOLD

ZONE-7
CU-05
CDU-05A

UPS7-04
from 107-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-05A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-04 | HOT_STANDBY

ZONE-7
CU-05
QF-CDU-05B-P

Z7-CDU-04

Z7-CDU-04 — HOLD — CDU-05B-P — PREFERRED — HOLD

ZONE-7
CU-05
CDU-05B

UPS7-04
from 107-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-05B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-05 | HOT_STANDBY

ZONE-7
CU-05
QF-CDU-05B-A

Z7-CDU-05

Z7-CDU-05 — HOLD — CDU-05B-A — ALTERNATE — HOLD

ZONE-7
CU-05
CDU-05B

UPS7-05
from 107-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-05B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-05. 480V 3ph 60Hz requirement.

K&K Data

CU-05 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-905	P3
SCALE NTS		SHEET 905	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-906 | CU-06 | CDU-06A + CDU-06B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-06 | DUTY

Z7-CDU-06

UPS7-06
from 107-I-7

Z7-CDU-06

ZONE-7
CU-06
QF-CDU-06A-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-06A-P

PREFERRED

HOLD

ZONE-7
CU-06
CDU-06A

CDU-06A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-05 | DUTY

Z7-CDU-05

UPS7-05
from 107-I-6

Z7-CDU-05

ZONE-7
CU-06
QF-CDU-06A-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-06A-A

ALTERNATE

HOLD

ZONE-7
CU-06
CDU-06A

CDU-06A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-05 | HOT_STANDBY

Z7-CDU-05

UPS7-05
from 107-I-6

Z7-CDU-05

ZONE-7
CU-06
QF-CDU-06B-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-06B-P

PREFERRED

HOLD

ZONE-7
CU-06
CDU-06B

CDU-06B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-06 | HOT_STANDBY

Z7-CDU-06

UPS7-06
from 107-I-7

Z7-CDU-06

ZONE-7
CU-06
QF-CDU-06B-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-06B-A

ALTERNATE

HOLD

ZONE-7
CU-06
CDU-06B

CDU-06B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-06. 480V 3ph 60Hz requirement.

K&K Data

CU-06 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-906	P3
SCALE NTS		SHEET 906	

REVISIONS			
P3	CDU INPUT DEVELOPMENT	2026-09-28	

E-907 | CU-07 | CDU-07A + CDU-07B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS7-01 | DUTY

Z7-CDU-01 — Z7-CDU-01 — HOLD — ZONE-7 / CU-07 / QF-CDU-07A-P — CDU-07A-P — PREFERRED — HOLD — ZONE-7 / CU-07 / CDU-07A

UPS7-01
from 107-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-07A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-06 | DUTY

Z7-CDU-06 — Z7-CDU-06 — HOLD — ZONE-7 / CU-07 / QF-CDU-07A-A — CDU-07A-A — ALTERNATE — HOLD — ZONE-7 / CU-07 / CDU-07A

UPS7-06
from 107-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-07A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS7-06 | HOT_STANDBY

Z7-CDU-06 — Z7-CDU-06 — HOLD — ZONE-7 / CU-07 / QF-CDU-07B-P — CDU-07B-P — PREFERRED — HOLD — ZONE-7 / CU-07 / CDU-07B

UPS7-06
from 107-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-07B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS7-01 | HOT_STANDBY

Z7-CDU-01 — Z7-CDU-01 — HOLD — ZONE-7 / CU-07 / QF-CDU-07B-A — CDU-07B-A — ALTERNATE — HOLD — ZONE-7 / CU-07 / CDU-07B

UPS7-01
from 107-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-07B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-07. 480V 3ph 60Hz requirement.

	K&K Data
	CU-07 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-907 P3
REV	
SCALE NTS	
SHEET	907

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-908 | CU-08 | CDU-08A + CDU-08B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-01 | DUTY

Z8-CDU-01 — Z8-CDU-01 — HOLD — ZONE-8 / CU-08 / QF-CDU-08A-P — CDU-08A-P — PREFERRED — HOLD — ZONE-8 / CU-08 / CDU-08A

UPS8-01
from 108-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-08A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-02 | DUTY

Z8-CDU-02 — Z8-CDU-02 — HOLD — ZONE-8 / CU-08 / QF-CDU-08A-A — CDU-08A-A — ALTERNATE — HOLD — ZONE-8 / CU-08 / CDU-08A

UPS8-02
from 108-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-08A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-02 | HOT_STANDBY

Z8-CDU-02 — Z8-CDU-02 — HOLD — ZONE-8 / CU-08 / QF-CDU-08B-P — CDU-08B-P — PREFERRED — HOLD — ZONE-8 / CU-08 / CDU-08B

UPS8-02
from 108-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-08B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-01 | HOT_STANDBY

Z8-CDU-01 — Z8-CDU-01 — HOLD — ZONE-8 / CU-08 / QF-CDU-08B-A — CDU-08B-A — ALTERNATE — HOLD — ZONE-8 / CU-08 / CDU-08B

UPS8-01
from 108-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-08B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-08. 480V 3ph 60Hz requirement.

K&K Data

CU-08 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-908	P3
SCALE NTS		SHEET 908	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-909 | CU-09 | CDU-09A + CDU-09B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-02 | DUTY

Z8-CDU-02 → Z8-CDU-02 → HOLD → CDU-09A-P → PREFERRED → HOLD

ZONE-8
CU-09
QF-CDU-09A-P

ZONE-8
CU-09
CDU-09A

UPS8-02
from 108-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-09A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-03 | DUTY

Z8-CDU-03 → Z8-CDU-03 → HOLD → CDU-09A-A → ALTERNATE → HOLD

ZONE-8
CU-09
QF-CDU-09A-A

ZONE-8
CU-09
CDU-09A

UPS8-03
from 108-I-4

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-09A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-03 | HOT_STANDBY

Z8-CDU-03 → Z8-CDU-03 → HOLD → CDU-09B-P → PREFERRED → HOLD

ZONE-8
CU-09
QF-CDU-09B-P

ZONE-8
CU-09
CDU-09B

UPS8-03
from 108-I-4

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-09B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-02 | HOT_STANDBY

Z8-CDU-02 → Z8-CDU-02 → HOLD → CDU-09B-A → ALTERNATE → HOLD

ZONE-8
CU-09
QF-CDU-09B-A

ZONE-8
CU-09
CDU-09B

UPS8-02
from 108-I-3

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-09B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-09. 480V 3ph 60Hz requirement.

	K&K Data
	CU-09 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-909
REV	P3
SCALE	NTS
SHEET	909

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-910 | CU-10 | CDU-10A + CDU-10B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-03 | DUTY

Z8-CDU-03

UPS8-03
from 108-I-4

Z8-CDU-03

ZONE-8
CU-10
QF-CDU-10A-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-10A-P

PREFERRED

HOLD

ZONE-8
CU-10
CDU-10A

CDU-10A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-04 | DUTY

Z8-CDU-04

UPS8-04
from 108-I-5

Z8-CDU-04

ZONE-8
CU-10
QF-CDU-10A-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-10A-A

ALTERNATE

HOLD

ZONE-8
CU-10
CDU-10A

CDU-10A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-04 | HOT_STANDBY

Z8-CDU-04

UPS8-04
from 108-I-5

Z8-CDU-04

ZONE-8
CU-10
QF-CDU-10B-P

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-10B-P

PREFERRED

HOLD

ZONE-8
CU-10
CDU-10B

CDU-10B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-03 | HOT_STANDBY

Z8-CDU-03

UPS8-03
from 108-I-4

Z8-CDU-03

ZONE-8
CU-10
QF-CDU-10B-A

HOLD

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-10B-A

ALTERNATE

HOLD

ZONE-8
CU-10
CDU-10B

CDU-10B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-10. 480V 3ph 60Hz requirement.

	K&K Data
	CU-10 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-910 P3
REV	
SCALE NTS	
SHEET	910

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-911 | CU-11 | CDU-11A + CDU-11B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-04 | DUTY

Z8-CDU-04 → Z8-CDU-04 → HOLD → ZONE-8 / CU-11 / QF-CDU-11A-P → CDU-11A-P → PREFERRED → HOLD → ZONE-8 / CU-11 / CDU-11A

UPS8-04
from 108-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-11A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-05 | DUTY

Z8-CDU-05 → Z8-CDU-05 → HOLD → ZONE-8 / CU-11 / QF-CDU-11A-A → CDU-11A-A → ALTERNATE → HOLD → ZONE-8 / CU-11 / CDU-11A

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-11A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-05 | HOT_STANDBY

Z8-CDU-05 → Z8-CDU-05 → HOLD → ZONE-8 / CU-11 / QF-CDU-11B-P → CDU-11B-P → PREFERRED → HOLD → ZONE-8 / CU-11 / CDU-11B

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-11B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-04 | HOT_STANDBY

Z8-CDU-04 → Z8-CDU-04 → HOLD → ZONE-8 / CU-11 / QF-CDU-11B-A → CDU-11B-A → ALTERNATE → HOLD → ZONE-8 / CU-11 / CDU-11B

UPS8-04
from 108-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-11B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-11. 480V 3ph 60Hz requirement.

K&K Data

CU-11 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-911	P3
SCALE NTS		SHEET 911	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-912 | CU-12 | CDU-12A + CDU-12B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-05 | DUTY

Z8-CDU-05 → Z8-CDU-05 → HOLD → CDU-12A-P → PREFERRED → HOLD

ZONE-8 / CU-12 / QF-CDU-12A-P

ZONE-8 / CU-12 / CDU-12A

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-12A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-04 | DUTY

Z8-CDU-04 → Z8-CDU-04 → HOLD → CDU-12A-A → ALTERNATE → HOLD

ZONE-8 / CU-12 / QF-CDU-12A-A

ZONE-8 / CU-12 / CDU-12A

UPS8-04
from 108-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-12A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-04 | HOT_STANDBY

Z8-CDU-04 → Z8-CDU-04 → HOLD → CDU-12B-P → PREFERRED → HOLD

ZONE-8 / CU-12 / QF-CDU-12B-P

ZONE-8 / CU-12 / CDU-12B

UPS8-04
from 108-I-5

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-12B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-05 | HOT_STANDBY

Z8-CDU-05 → Z8-CDU-05 → HOLD → CDU-12B-A → ALTERNATE → HOLD

ZONE-8 / CU-12 / QF-CDU-12B-A

ZONE-8 / CU-12 / CDU-12B

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-12B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-12. 480V 3ph 60Hz requirement.

	K&K Data
	CU-12 CDU INPUTS
	PUBLIC P3 / 2026-10
SIZE E	FSCM NO
DRAWING NUMBER	E-912
REV	P3
SCALE	NTS
SHEET	912

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-913 | CU-13 | CDU-13A + CDU-13B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-06 | DUTY

Z8-CDU-06 — Z8-CDU-06 — HOLD — ZONE-8 / CU-13 / QF-CDU-13A-P — CDU-13A-P — PREFERRED — HOLD — ZONE-8 / CU-13 / CDU-13A

UPS8-06
from 108-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-13A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-05 | DUTY

Z8-CDU-05 — Z8-CDU-05 — HOLD — ZONE-8 / CU-13 / QF-CDU-13A-A — CDU-13A-A — ALTERNATE — HOLD — ZONE-8 / CU-13 / CDU-13A

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-13A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-05 | HOT_STANDBY

Z8-CDU-05 — Z8-CDU-05 — HOLD — ZONE-8 / CU-13 / QF-CDU-13B-P — CDU-13B-P — PREFERRED — HOLD — ZONE-8 / CU-13 / CDU-13B

UPS8-05
from 108-I-6

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-13B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-06 | HOT_STANDBY

Z8-CDU-06 — Z8-CDU-06 — HOLD — ZONE-8 / CU-13 / QF-CDU-13B-A — CDU-13B-A — ALTERNATE — HOLD — ZONE-8 / CU-13 / CDU-13B

UPS8-06
from 108-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-13B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-13. 480V 3ph 60Hz requirement.

K&K Data

CU-13 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-913	P3
SCALE NTS		SHEET 913	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-914 | CU-14 | CDU-14A + CDU-14B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-07 | DUTY

Z8-CDU-07 — Z8-CDU-07 — HOLD — CDU-14A-P — PREFERRED — HOLD

ZONE-8
CU-14
QF-CDU-14A-P

ZONE-8
CU-14
CDU-14A

UPS8-07
from 108-I-8

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-14A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-06 | DUTY

Z8-CDU-06 — Z8-CDU-06 — HOLD — CDU-14A-A — ALTERNATE — HOLD

ZONE-8
CU-14
QF-CDU-14A-A

ZONE-8
CU-14
CDU-14A

UPS8-06
from 108-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-14A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-06 | HOT_STANDBY

Z8-CDU-06 — Z8-CDU-06 — HOLD — CDU-14B-P — PREFERRED — HOLD

ZONE-8
CU-14
QF-CDU-14B-P

ZONE-8
CU-14
CDU-14B

UPS8-06
from 108-I-7

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-14B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-07 | HOT_STANDBY

Z8-CDU-07 — Z8-CDU-07 — HOLD — CDU-14B-A — ALTERNATE — HOLD

ZONE-8
CU-14
QF-CDU-14B-A

ZONE-8
CU-14
CDU-14B

UPS8-07
from 108-I-8

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-14B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-14. 480V 3ph 60Hz requirement.

K&K Data

CU-14 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-914	P3
SCALE NTS		SHEET 914	

REVISIONS			
	P3	CDU INPUT DEVELOPMENT	2026-09-28

E-915 | CU-15 | CDU-15A + CDU-15B

FUNCTIONAL INPUT ARRANGEMENT [STUDY]; TWO UPS OUTPUTS MUST NOT PARALLEL

STUDY | PREFERRED | UPS8-01 | DUTY

Z8-CDU-01 — Z8-CDU-01 — HOLD — ZONE-8 / CU-15 / QF-CDU-15A-P — CDU-15A-P — PREFERRED — HOLD — ZONE-8 / CU-15 / CDU-15A

UPS8-01
from 108-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-15A / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-07 | DUTY

Z8-CDU-07 — Z8-CDU-07 — HOLD — ZONE-8 / CU-15 / QF-CDU-15A-A — CDU-15A-A — ALTERNATE — HOLD — ZONE-8 / CU-15 / CDU-15A

UPS8-07
from 108-I-8

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-15A / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | PREFERRED | UPS8-07 | HOT_STANDBY

Z8-CDU-07 — Z8-CDU-07 — HOLD — ZONE-8 / CU-15 / QF-CDU-15B-P — CDU-15B-P — PREFERRED — HOLD — ZONE-8 / CU-15 / CDU-15B

UPS8-07
from 108-I-8

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-15B / PREFERRED
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

STUDY | ALTERNATE | UPS8-01 | HOT_STANDBY

Z8-CDU-01 — Z8-CDU-01 — HOLD — ZONE-8 / CU-15 / QF-CDU-15B-A — CDU-15B-A — ALTERNATE — HOLD — ZONE-8 / CU-15 / CDU-15B

UPS8-01
from 108-I-2

CDU INPUT BRANCH PROTECTION
STUDY - SETTINGS / RATING HOLD

CDU-15B / ALTERNATE
LOGICAL INPUT - OEM PIN HOLD
LOAD kW/kVA/A HOLD

Each input: full CDU duty. Actual kW/kVA/A, protection and cable ratings: TBD.

BY OEM: pins, N requirement, isolated transfer and N/PE arrangement.

Study basis: CDU_INPUT_INTERFACES_60.csv / CU-15. 480V 3ph 60Hz requirement.

K&K Data

CU-15 CDU INPUTS

PUBLIC P3 / 2026-10

SIZE	FSCM NO	DRAWING NUMBER	REV
E		E-915	P3
SCALE NTS		SHEET 915	