

YBW & ZGS

Packaged Substations European and American Type

10 / 0.4 kV · 150 - 1600 kVA · IEC 62271-202



Packaged Substations

YBW-12 European · ZGS13 American · 10 / 0.4 kV

Overview

A packaged substation takes what would otherwise be a switchroom — medium voltage switchgear, a distribution transformer and a low voltage board — and builds it in our works as one unit. It arrives on a lorry, is craned onto a prepared foundation and connected. One delivery, one set of drawings, one party answerable for the lot.

HARRL builds both families. The **European type (YBW-12)** is a walk-in steel shell divided into three rooms, maintained from inside. The **American type (ZGS13)** puts the transformer, the MV switch and the fuses in one sealed oil tank with dead-front HV and LV compartments on the front, and takes about a third less floor area.

Two Families

Both in this book · 10 / 0.4 kV, 50 Hz, Dyn11

YBW-12	European type · 630 - 1250 kVA · walk-in shell
ZGS13-Z	American type · terminal (radial) feed · 150 - 1600 kVA
ZGS13-H	American type · loop feed · 150 - 1600 kVA

Typical Applications

- Housing developments and mixed-use blocks
- Industrial yards, workshops and logistics parks with no switchroom
- Car parks, sports grounds and other temporary or seasonal supplies
- Pumping and irrigation stations, quarries, solar and wind sites

Reference Standards

Design and routine testing basis

- GB/T 17467-2020 / IEC 62271-202 — High-voltage / low-voltage prefabricated substation
- GB 1094 / IEC 60076 — Power transformers
- GB/T 11022 / IEC 62271-1 — Common specifications for high-voltage switchgear
- GB/T 7251.12 / IEC 61439-2 — Low voltage switchgear assemblies
- GB/T 4208 / IEC 60529 — Degrees of protection provided by enclosures

Normal Service Conditions

Installation	Outdoor, on a prepared foundation
Ambient air temperature	-25 °C to +40 °C (YBW) · -35 °C to +40 °C (ZGS13)
Altitude	≤ 1000 m
Relative humidity	Daily mean ≤ 95 %, monthly mean ≤ 90 %
Wind speed	≤ 34 m/s

* Coastal, desert and high-altitude sites are built with an upgraded coating system and derated ratings. State the site conditions with the enquiry.

Delivered as One Unit

- Built, wired and functionally checked in our works, then routine tested
- Craned onto a prepared foundation in one piece — no assembly on site
- Site work is the foundation, the incoming and outgoing cables and the earth connection

One works, one warranty

The MV cubicles, the low voltage board and the transformer in a HARRL substation are all HARRL products, built and wired in the same works. Nothing is bought in and badged, so there is one drawing set and one party to call.

European or American

The same job, two ways of packaging it

	YBW-12 — European	ZGS13 — American
Construction	Walk-in steel shell, three separate rooms	One sealed oil tank, dead-front HV and LV compartments
Transformer	S13-M oil-immersed, a separate unit inside the shell	ZGS13 oil-immersed, integral with the tank
MV switching	HLC-12 / HXGN-12 load-break cubicles	Two-position (Z) or four-position T-type (H) switch, in oil
MV protection	HV current-limiting fuses in a fuse-switch cubicle	Backup fuse in oil + bayonet fuse, replaceable from the front
MV cable connection	Cable termination inside the MV room	Elbow (separable) connectors, dead-front
LV board	GGD / GGJ fixed cubicles, walk-in access	Moulded-case board inside the LV compartment
Capacity range	630 – 1250 kVA standard	150 – 1600 kVA
Rated voltage	12 / 0.4 kV	10 / 0.4 kV, Um 12 kV
Footprint at 630 kVA	3000 × 2300 mm	2600 × 1850 mm
Degree of protection	IP43	IP33D
Noise level	≤ 54 dB	≤ 45 dB
Ambient temperature	–25 °C to +40 °C	–35 °C to +40 °C
Maintenance	From inside; rooms are entered	From the front only; the tank is not opened on site
Changing the build	Cubicles can be added or swapped later	Configuration is fixed at the works

* Figures are the standard build at 630 kVA. Both families are configured to the project single line diagram before manufacture.

Common to Both

- Oil-immersed transformer, Dyn11, off-circuit tap changer ± 2 × 2.5 %
- Outdoor rating; craned in one piece onto a prepared foundation
- Cable entry from below through a pit, with the earth grid bonded at the base
- Reactive power compensation included in the low voltage board as standard
- Routine tested and functionally checked in our works before shipment

Choose the European type when

- The MV side has to **switch** — ring feed, two incomers, a bus section, or a feeder that carries on to the next substation
- The low voltage board is more than a handful of ways, or carries metering, control signals and reactive compensation that will be looked at
- The substation will be **maintained and extended** over its life, and the customer wants to get inside it
- The site has room, and the buyer values access over floor area

Choose the American type when

- **Floor area is short** — a pad beside a car park, a pumping station, a transformer position inside a compound
- The supply is a simple radial tap (ZGS13-Z) or a straightforward loop (ZGS13-H)
- The site is unattended or publicly accessible: the dead-front tank has nothing live behind the doors and nothing to enter
- The budget matters and the LV board is a handful of outgoing ways

Where the Ranges Overlap

150 – 630 kVA	American type, unless the MV side has to switch
630 – 1250 kVA	Either – decided by MV switching and the number of LV ways
1250 – 1600 kVA	American type to 1600 kVA; a European shell above 1250 kVA is built to order

Not sure yet

Send the single line diagram, the load schedule and the space you have. Most enquiries settle once the MV switching positions and the LV ways are on paper.

European-Type Compact Substation

YBW-12/0.4 · 630 – 1250 kVA

YBW is a factory-assembled substation in one steel shell: the medium voltage switchgear, the distribution transformer and the low voltage board are built, wired and tested in our works, then craned onto a prepared foundation and connected. What would otherwise be a building, three deliveries and three commissioning visits becomes one delivery.

Standard Ratings

Transformer capacity	630 kVA and 1250 kVA standard
MV / LV voltage	12 kV / 0.4 kV
Enclosure, 630 kVA	3000 × 2300 × 2500 mm
Enclosure, 1250 kVA	3800 × 2800 × 2500 mm
Degree of protection	IP43

Type Designation

Y	Prefabricated (packaged) substation
B	Box type
W	European style – separate MV, transformer and LV rooms
12 / 0.4	MV rated voltage 12 kV, LV 0.4 kV
Suffix	Transformer capacity, e.g. YBW-12/0.4-630

Enclosure

Composite panel shell, State-Grid green

- Composite sandwich panel walls and roof — the outer skin takes the weather, the core keeps the sun off the transformer
- Double roof with an air gap, so the top surface heats up and the inner roof does not
- Natural ventilation through wall louvres; forced ventilation in the transformer room on request
- IP43, doors on all four sides with padlockable handles and door-open interlocks
- Lifting lugs at four corners; the unit is craned in one piece

Three Rooms, One Shell

- **MV room** — ring main unit or load-break switch cubicles, cable entry from below, side exit to the transformer
- **Transformer room** — oil-immersed transformer on rails, with the largest ventilation area of the three rooms
- **LV room** — incoming, outgoing and capacitor cubicles, busbar in from the rear, cables out at the bottom

Operation and Safety

- MV load-break switch is manually operated; the AC 220 V control supply is taken from the LV side of the substation itself
- Earth bar runs through all three rooms and is brought out to the site earth grid at two points
- Mechanical interlocks between the MV switch, the earthing switch and the transformer room door

Do not build it against a wall

All doors open outwards on the long sides. The unit needs clear access on every face, so it cannot be installed hard against a boundary wall — allow the door swing plus working space on the foundation drawing.

Rated Parameters

YBW-12/0.4 European-type compact substation

Parameter	Unit	YBW-12/0.4-630	YBW-12/0.4-1250
Rated frequency	Hz	50	50
MV rated voltage	kV	12	12
LV rated voltage	kV	0.4	0.4
Transformer rated capacity	kVA	630	1250
MV short-time withstand current	kA	20 / 2 s	20 / 2 s
MV peak withstand current	kA	50	50
LV short-time withstand current	kA	31.5 / 2 s	31.5 / 3 s
LV peak withstand current	kA	66	66
Earth circuit short-time withstand	kA	20 / 1 s	18 / 1 s
Earth circuit peak withstand	kA	50	45
MV lightning impulse withstand	kV	75	75
LV lightning impulse withstand	kV	7.4	7.4
Degree of protection	—	IP43	IP43
Noise level	dB	54	54
Enclosure L × W × H	mm	3000 × 2300 × 2500	3800 × 2800 × 2500

* Design basis GB/T 17467-2020 (IEC 62271-202). Every unit is routine tested and functionally checked in our works before shipment.

Transformer

Type	S13-M oil-immersed, hermetically sealed
Voltage ratio	10 ± 2 × 2.5 % / 0.4 kV
Vector group	Dyn11
Short-circuit impedance	4.5 %
Alternatives	S20 / S22 for lower loss; SCB cast resin on request

Typical Configuration — 630 kVA

Section	Content
MV switchgear	HLC-12(C)/630-20 load-break cubicle HLC-12(F)/125-31.5 fuse-switch cubicle
Transformer	S13-M 630 kVA, 10 ± 2 × 2.5 % / 0.4 kV, Dyn11
LV switchgear	GGD incoming, outgoing and capacitor cubicles
LV incoming device	Withdrawable air circuit-breaker, 1600 A
LV outgoing device	Moulded-case circuit-breakers, up to 630 A
Main busbar	TMY-630 copper

Typical Configuration — 1250 kVA

Section	Content
MV switchgear	HXGN-12(FZ)/630-20 load-break cubicle HXGN-12(FZR)/125-31.5 fuse-switch cubicle
Transformer	S13-M 1250 kVA, 10 ± 2 × 2.5 % / 0.4 kV, Dyn11
LV switchgear	GGD incoming, outgoing and capacitor cubicles
LV incoming device	Withdrawable air circuit-breaker, 1600 A
LV outgoing device	Moulded-case circuit-breakers, up to 630 A
Main busbar	TMY-3 × (80 × 6) copper

* Both configurations are the standard build. MV and LV device selection is confirmed against the project single line diagram before manufacture.

Capacity is not the only choice

The shell, the MV configuration and the LV board are all built to the project. Ratings between 630 and 1250 kVA, a second outgoing feeder, remote metering or an RTU for distribution automation are configuration questions, not new products.

YBW-12/0.4-630 — General Arrangement

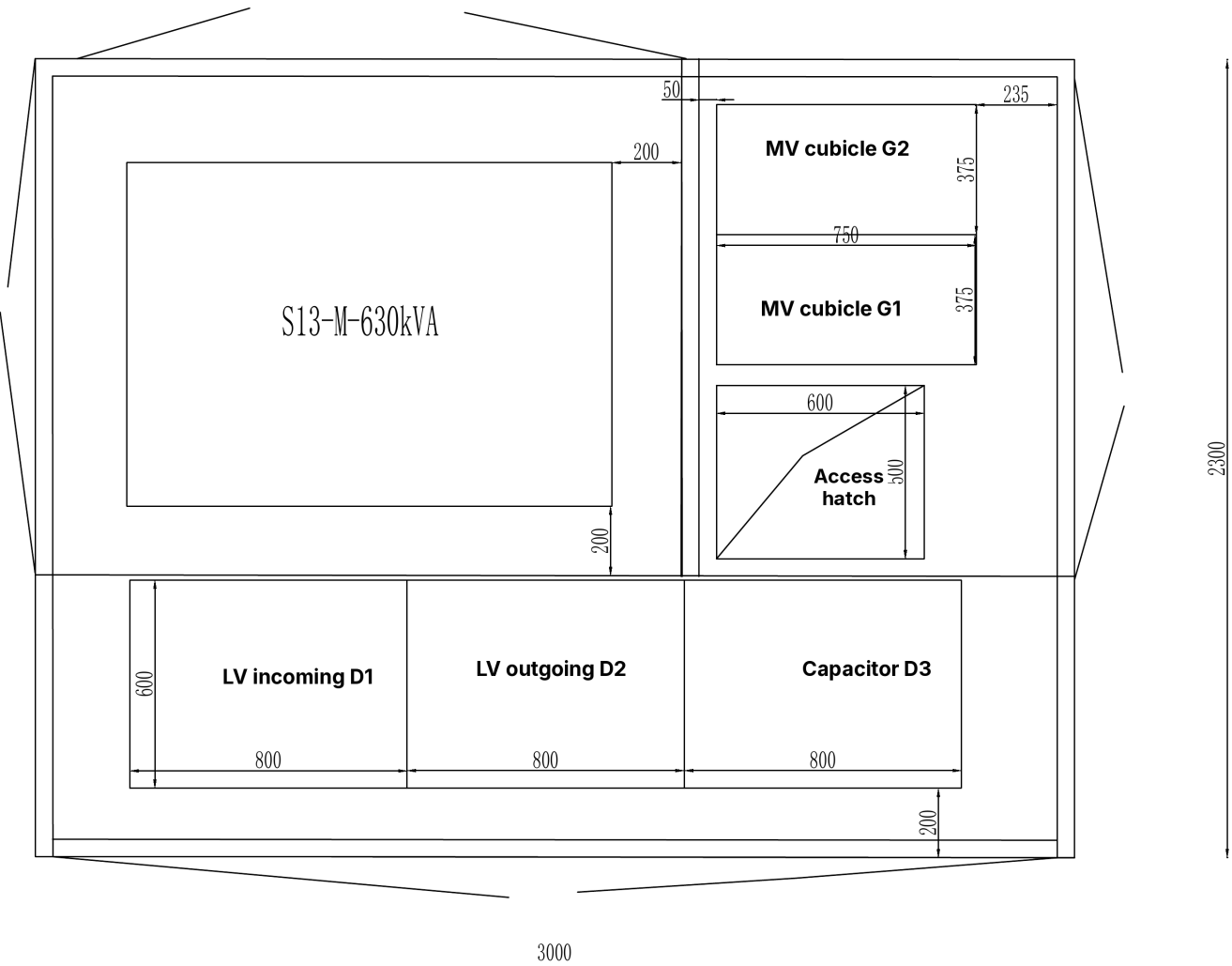


Fig. 1 — Plan view: transformer room, MV room and LV board

Cable Routing

- **MV** — cables enter from below through the foundation pit and leave sideways into the transformer room
- **LV** — busbar connection from the rear of the board, outgoing cables down into the pit
- Cable entry holes in the base are set out to suit the site; the customer marks them on the foundation drawing

Room Layout

How the shell is divided

- **Transformer room** — the largest bay, taking the full depth of the shell, with rails for the transformer and the deepest ventilation louvres
- **MV room G1 / G2** — two cubicles: the incoming load-break switch and the fuse-switch that feeds the transformer
- **Access hatch** — reaches the MV cable termination without entering the transformer room
- **LV board D1 / D2 / D3** — incoming, outgoing and capacitor cubicles along the front wall, 800 mm each

Key Dimensions — 630 kVA

Overall enclosure	3000 × 2300 × 2500 mm
LV cubicle width	3 × 800 mm
LV room depth	600 mm
MV room width	750 mm
Access hatch	600 × 500 mm

1250 kVA arrangement

The 1250 kVA shell is 3800 × 2800 mm on the same principle: the transformer bay grows, the MV and LV rooms keep their layout. The arrangement drawing for that rating is issued with the quotation.

YBW-12/0.4-630 — Single Line Diagram

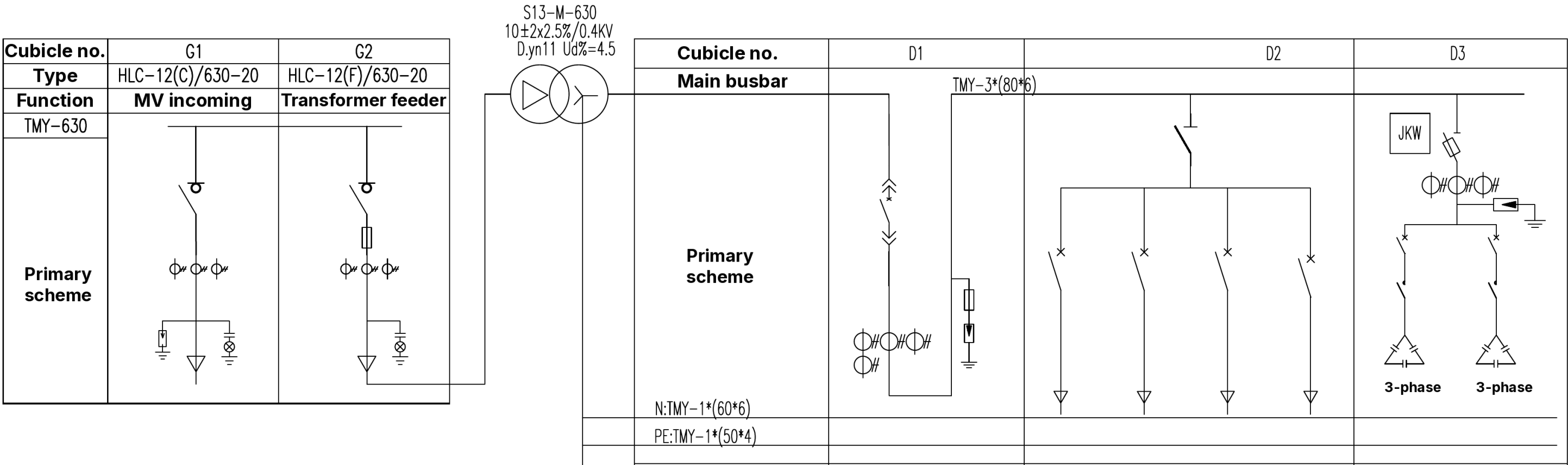


Fig. 2 — MV side: G1 incoming and G2 transformer feeder, with the 630 kVA transformer

LV side: D1 incoming, D2 outgoing ways and D3 capacitor cubicle, main busbar TMY-3 × (80 × 6)

MV Cubicles

HLC-12 ring main units, 12 kV / 630 A / 20 kA

Item	G1 — MV incoming	G2 — Transformer feeder
Cubicle type	HLC-12(C)/630-20	HLC-12(F)/630-20
Load-break switch	630 A / 20 kA	630 A / 20 kA
HV fuse	—	Current-limiting, 12 kV *
Current transformer	300 / 5	300 / 5
Surge arrester	17 / 45 kV, 3	17 / 45 kV, 3
Operation	Motorised and manual	Motorised and manual
Cable termination	3 × 70 mm ²	3 × 70 / 3 × 1 × 50 mm ²
Cubicle W × D × H	375 × 750 × 1950	375 × 750 × 1950

* HV fuse rating is selected for the transformer and stated on the project scheme drawing.

LV Board

GGD fixed cubicles and a GGJ capacitor cubicle, 400 V

Item	D1 — incoming	D2 — outgoing	D3 — capacitor
Cubicle type	GGD	GGD	GGJ
W × D × H	800 × 600 × 2000	800 × 600 × 2000	800 × 600 × 2000
Main device	Withdrawable ACB 1250 A	Knife switch 1500 A; MCCB 630 / 400 A	Fused isolator 400 A
Surge protection	SPD 15 kA / 4P	—	Arrester 0.28 / 1.3 kV
Capacitor steps	—	—	30 kvar × 6 = 180 kvar
Current transformer	1200 / 5	—	300 / 5
Instruments	3 ammeters, voltmeter	—	3 ammeters

* Busbars: main TMY-3 × (80 × 6), N TMY-1 × (60 × 6), PE TMY-1 × (50 × 4). Ratings are the standard 630 kVA build.

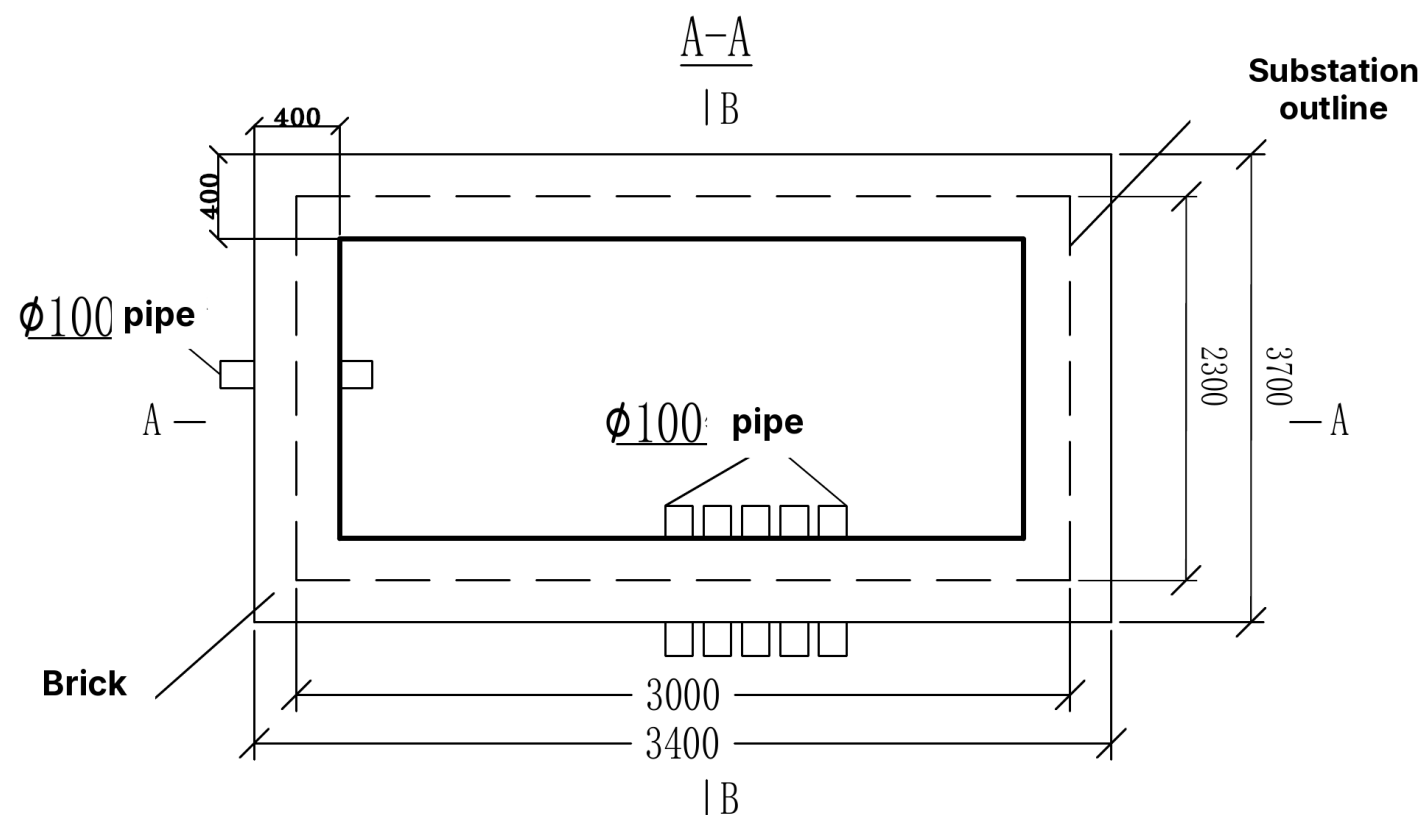


Fig. 3 — Cable pit with Ø 100 mm entry pipes, 630 kVA

Pit Dimensions

630 kVA, from the foundation drawing

Pit, inside	3000 × 2300 mm
Pit, outside	3400 × 2700 mm
Earth grid ring	3700 mm across the long side
Cable entry pipes	Ø 100 mm
Bearing surface	12# channel cast into the wall top

Foundation Requirements

- Brick pit walls laid in cement mortar and waterproofed inside and out; leave a drain outlet at the bottom of the pit and connect it to the site drainage
- Cast a 12# channel into the top of the wall so the substation lands on a level, continuous bearing surface
- Lay an earth grid around the pit and bring it in with galvanised angle or flat steel bonded to the substation base; earth resistance $\leq 4 \Omega$
- MV and LV cable entry holes are set out by the customer to suit the site
- Keep the door swing clear on all faces — the unit cannot be installed against a wall

Reading the Scheme

The cubicle numbers on Fig. 2

- **G1** — MV incoming load-break switch with earthing switch and cable connection
- **G2** — fuse-switch cubicle feeding the transformer, with HV current-limiting fuses
- **D1** — LV incoming circuit-breaker, current transformers and metering
- **D2** — LV outgoing ways
- **D3** — capacitor cubicle with automatic power factor controller

The foundation comes first

It is the one thing on site that has to be right before the substation arrives. We issue the drawing with the order confirmation — pit size, entry pipe positions, bearing surface and earth grid — so the civil work and the manufacture run in parallel.

American-Type Compact Substation

ZGS13 · 150 – 1600 kVA

The American type puts the whole substation inside one oil-filled tank. The transformer core and windings, the medium voltage load-break switch and both sets of fuses sit in the same oil; on the front, two lockable compartments carry the MV elbow connectors and the low voltage board — nothing live is reachable behind the doors.

Because the switch and the protection share the transformer tank, the footprint is about a third smaller than a European shell of the same rating — 2600 × 1850 mm at 630 kVA, and it suits any site where floor area is the constraint.

Standard Ratings

Transformer capacity	150 - 1600 kVA
MV / LV voltage	10 kV / 0.4 kV (Um 12 kV)
Enclosure, 630 kVA	2600 × 1850 mm
Degree of protection	IP33D
Cooling	ONAN, oil-immersed self-cooled

Type Designation

ZGS	Combined (pad-mounted) packaged substation
13	Transformer loss level, matching the S13 series
Z / H	Z = terminal (radial) feed · H = loop feed
630	Transformer rated capacity, kVA
10	MV rated voltage, kV

ZGS13 Pad-Mounted Substation



Fig. 4 — Dead-front tank with separate HV and LV compartments

What the Tank Holds

- **Transformer** — oil-immersed, 10 ± 2 × 2.5 % / 0.4 kV, Dyn11, sealed tank
- **MV switch** — two-position load-break switch (Z) or four-position T-type switch (H), operated in oil from the front of the HV compartment
- **Double fuse protection** — a bayonet fuse in series with a backup current-limiting fuse in oil, so a transformer fault is cleared without opening the tank
- **MV cable connection** — elbow (separable) connectors, dead-front; the H version has feed-through bushings for the loop
- **LV compartment** — main incoming circuit-breaker, outgoing moulded-case ways, N and PE bars and the capacitor bank

Rated Parameters

ZGS13 American-type compact substation

Parameter	Unit	Value
Rated voltage, MV / LV	kV	10 / 0.4
Highest voltage for equipment	kV	12 (MV side)
Rated frequency	Hz	50
Rated capacity	kVA	150 - 1600
Power-frequency withstand, 1 min	kV	35
Lightning impulse withstand	kV	75
Cooling method	—	ONAN, oil-immersed self-cooled
Backup fuse breaking current	kA	50
Bayonet fuse breaking current	kA	2.5
Ambient air temperature	°C	-35 to +40
Permissible winding temperature rise	K	60
Off-circuit tap changer	—	± 5 % or ± 2 × 2.5 %
Noise level	dB	≤ 45
Degree of protection	—	IP33D

* Transformer parameters follow GB 1094 (IEC 60076). Every unit is routine tested and functionally checked in our works before shipment.

Transformer

Rating, standard build	630 kVA
Voltage ratio	10 ± 2 × 2.5 % / 0.4 kV
Vector group	Dyn11
Short-circuit impedance	4.5 %
Tank	Sealed, oil-immersed, corrugated wall

Typical Configuration

630 kVA, the standard build of both versions

Section	ZGS13-Z — terminal	ZGS13-H — loop
MV switch	Two-position load-break switch	Four-position T-type load-break switch
MV cable connection	Elbow connectors	Elbow connectors + feed-through bushings
MV protection	Double fuse: bayonet + backup	Double fuse: bayonet + backup
Surge protection	Surge arresters, MV side	Surge arresters, MV side
LV incoming	2000 A main circuit-breaker	2000 A main circuit-breaker
LV outgoing	6 moulded-case ways	6 moulded-case ways
LV bars	N and PE bars	N and PE bars
Compensation	180 kvar capacitor bank	180 kvar capacitor bank
Supply arrangement	Radial tap off the MV feeder	Loop-in / loop-out ring supply

Build Notes

From the manufacturing drawing

- Metering is taken on the low voltage side; the metering current transformers and the combined terminal block are wired to a separately sealed metering compartment
- The LV main device is a withdrawable air circuit-breaker with a shunt trip, supplied without an undervoltage release so an incoming dip does not trip the whole board
- The power factor controller reads capacitor step status and power factor, and is set on commissioning
- Enclosure is powder-coated cold-rolled steel sheet

Two fuses, two jobs

The bayonet fuse in the HV compartment clears a transformer overload and is changed from the front in minutes. Behind it, the backup current-limiting fuse inside the tank clears a short circuit — it only ever operates on a fault the bayonet fuse cannot take, and the unit comes back to the works for it.

ZGS13-Z-630/10 — Single Line Diagram

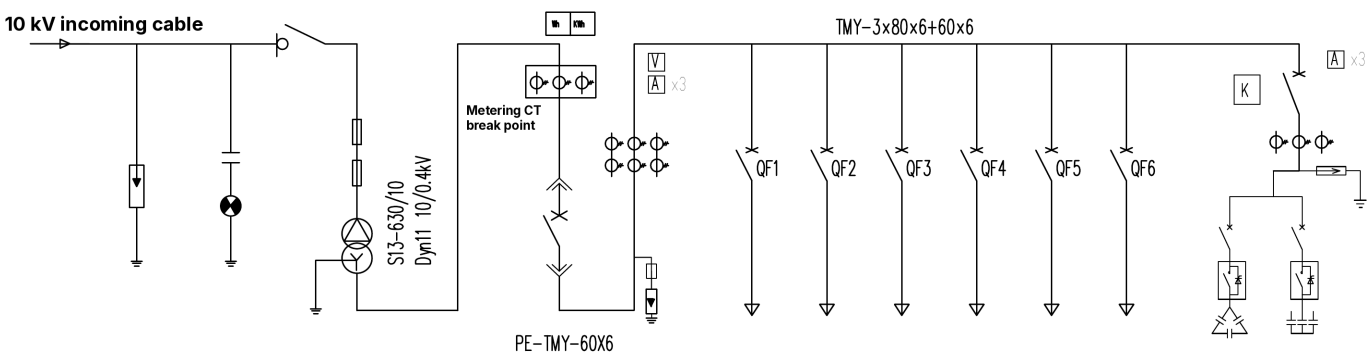


Fig. 5 — Terminal (radial) version: one incoming cable, two-position load-break switch

Reading Fig. 5

MV side, terminal version

- The incoming cable lands on elbow connectors; a surge arrester and a voltage indicator sit on the same connection
- The two-position load-break switch makes and breaks the whole substation — there is no through feed
- Two fuses in series protect the transformer: the bayonet fuse clears overload, the backup current-limiting fuse in oil clears a short circuit
- The transformer is S13-630/10, Dyn11, 10 / 0.4 kV

LV Board

Main busbar	TMY-3 × (80 × 6) + 60 × 6
PE bar	TMY-60 × 6
Main incoming device	2000 A withdrawable air circuit-breaker
Outgoing ways	QF1 - QF6, moulded-case
Compensation	180 kvar, contactor-switched steps

ZGS13-H-630/10 — Single Line Diagram

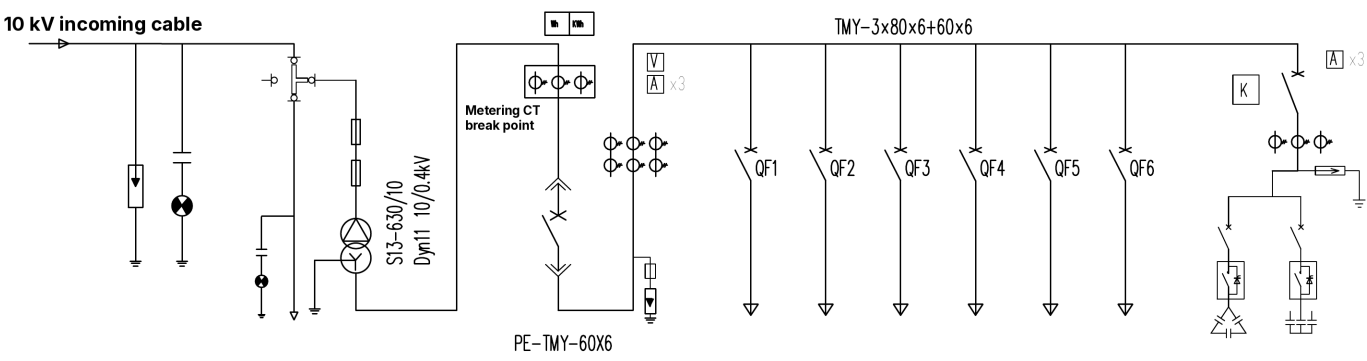


Fig. 6 — Loop version: four-position T-type switch with loop-in and loop-out

Reading Fig. 6

MV side, loop version

- The four-position T-type switch gives loop-in, loop-out and a tee-off to the transformer in one device, so the next substation on the ring keeps its supply while this one is isolated
- Feed-through bushings carry the loop; the transformer tee has the same double fuse protection as the terminal version
- The low voltage board, the metering and the compensation are identical to the Z version

Same tank, same footprint

Z and H differ only in the medium voltage switch and the bushing arrangement. The tank, the general arrangement (2600 × 1850 mm) and the foundation are the same, so a site laid out for one takes the other.

Metering

- Total metering on the low voltage side, in a compartment sealed independently of the LV board
- Metering current transformers are broken out at a dedicated break point on the scheme

ZGS13-630/10 — General Arrangement

How It Is Divided

Two compartments and a tank

- **Transformer** — the tank takes the back of the unit across its full width, with the corrugated cooling wall on the far side
- **HV compartment** — the load-break switch operating handles, the elbow connectors, the bayonet fuse holders and the surge arresters
- **LV compartment** — the main circuit-breaker, the outgoing ways, the bars and the capacitor bank
- Both compartments are dead-front and separately lockable; the HV door is interlocked so it cannot be opened with the switch closed

Key Dimensions — 630 kVA

Overall footprint	2600 × 1850 mm
HV compartment width	735 mm
Transformer tank width	1075 mm
Tank projection	241 mm beyond the compartment line
Cable entry	From below, through the foundation pit

Operated from the front

Everything an operator touches — the switch handle, the fuse holders, the LV breaker — is reached from the front of the unit. The tank itself is not opened on site; a fault inside it comes back to the works.

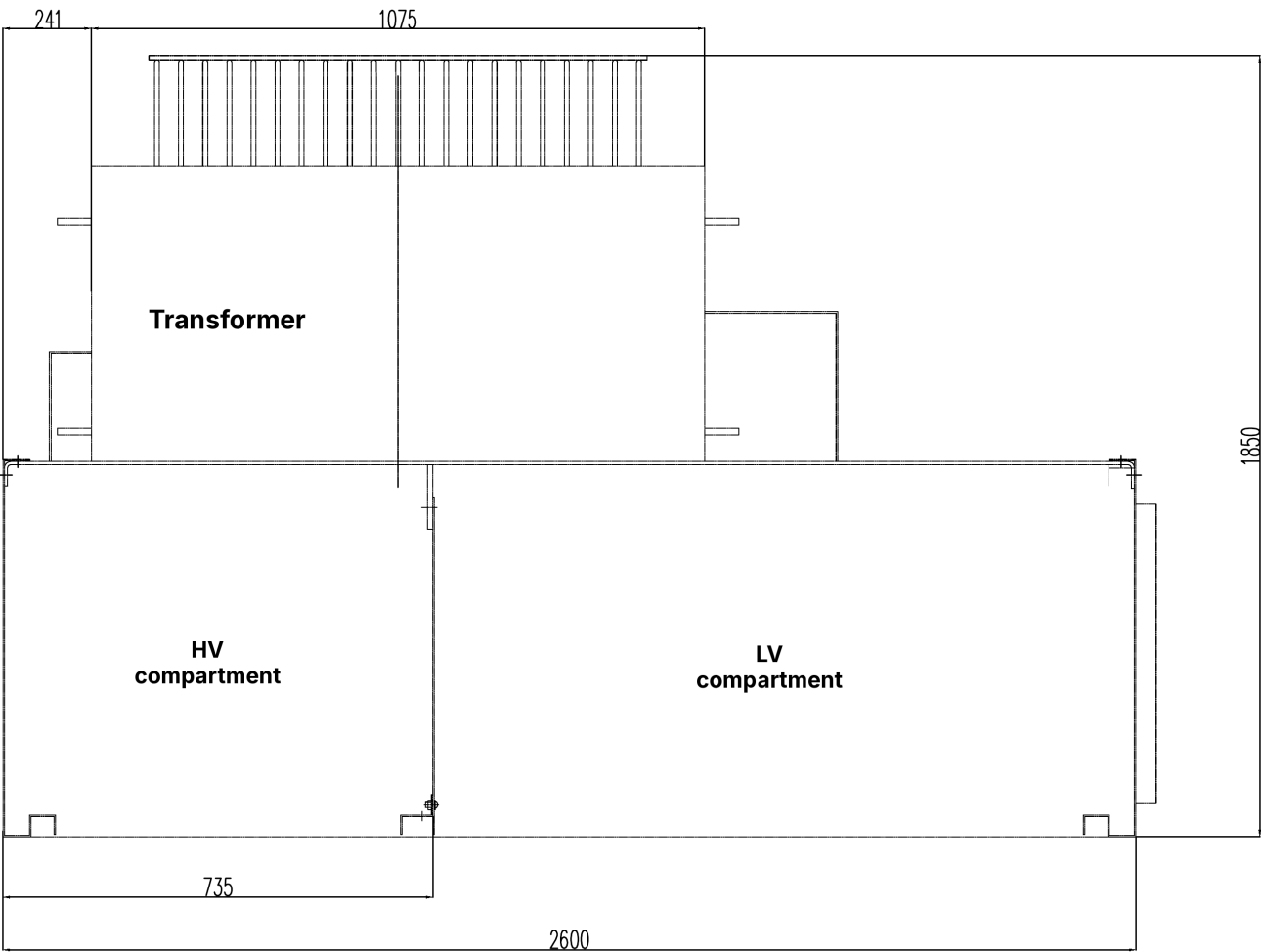


Fig. 7 — Plan view: transformer tank with the HV and LV compartments on the front

Installation Clearances

- Both compartment doors open outwards at the front — leave at least 1 m of working space across the whole front face
- Keep the cooling wall at the back clear; it is the only heat path the tank has
- The unit is craned by the lugs on the base frame and set on the cast-in M16 bolts

Foundation — Section

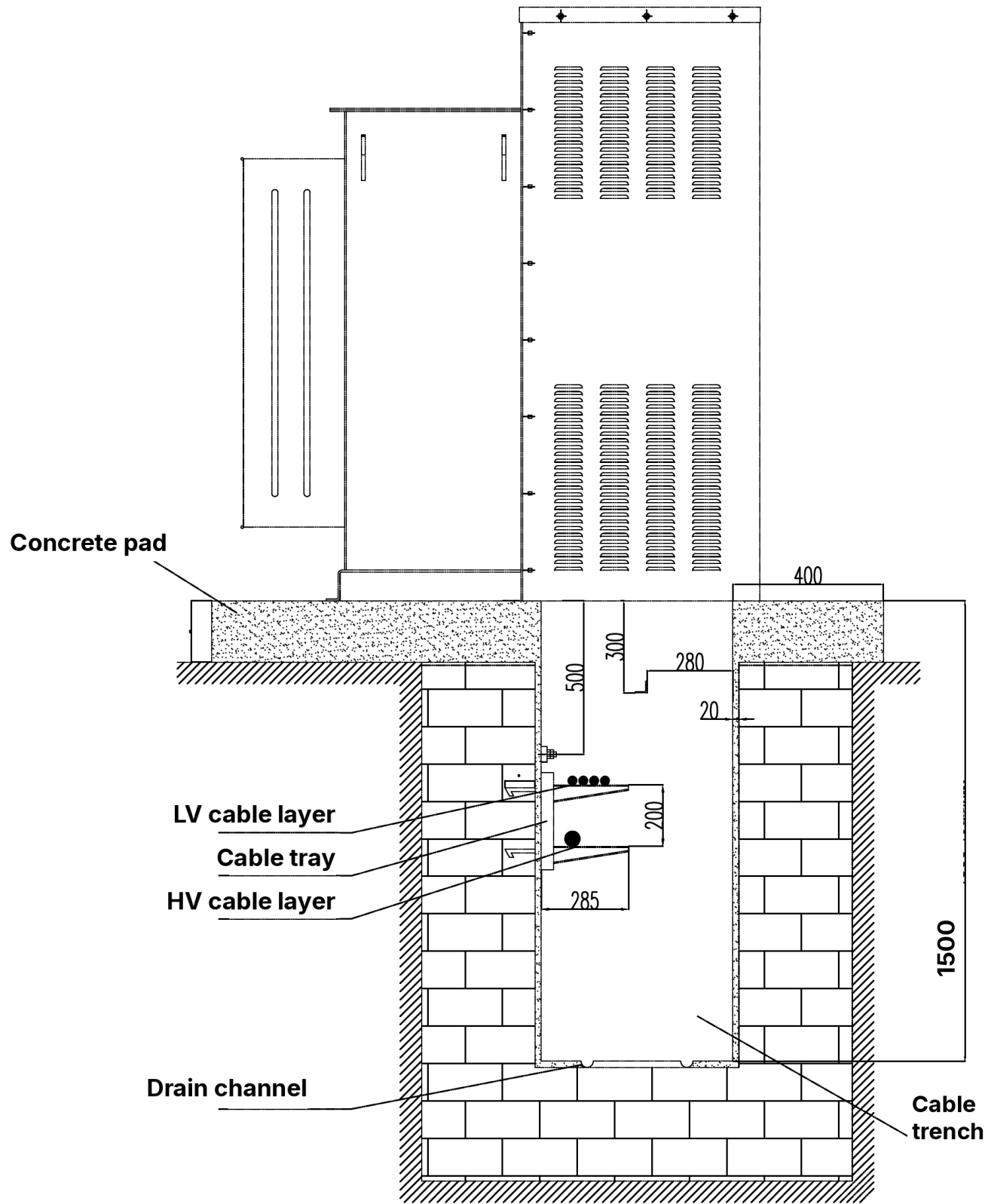


Fig. 8 — Concrete pad over the cable pit, with the HV and LV cable layers and the drain channel

Foundation — Plan

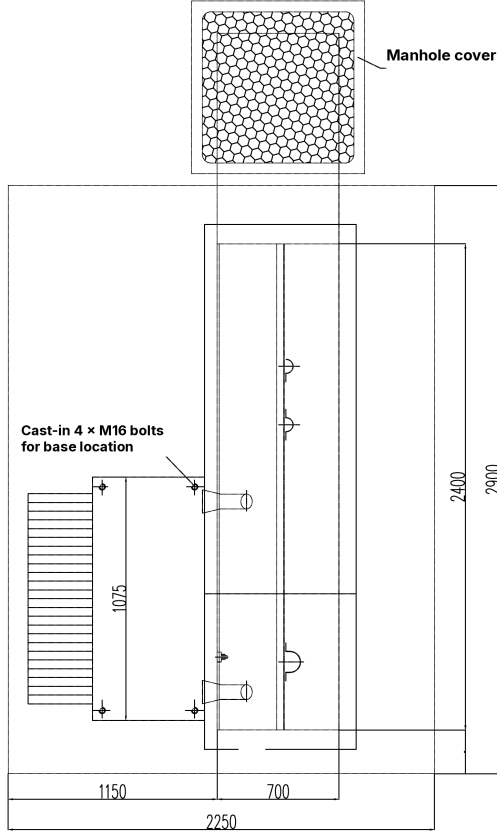


Fig. 9 — Pad outline 2250 × 2900 mm, with the manhole cover and the cast-in M16 bolts

Foundation Requirements

- Cast G100 steel pipes into the cable entries, as many as the cables need; flare the pipe mouths, fall them 5 / 100 away from the pit and bury them at least 0.5 m deep
- Level the top of the pad: more than 10 mm out and the compartment doors do not open cleanly
- Pit depth is set on site; 1500 mm is the drawing value
- Bury the earth electrode at least 0.6 m deep and weld the joints on both faces, painting them against corrosion
- Bond the grid to the substation with 100 mm² hot-dip galvanised flat steel; measured earth resistance must be below 4 Ω

What to Specify

Send this with the enquiry and we quote a substation, not a guess

- Which family — European or American — or ask us to recommend one from the single line diagram
- Transformer capacity, MV and LV voltage, frequency and vector group
- MV configuration: radial tap, or ring feed with loop-in and loop-out
- MV cable type and size, and whether the cables come in from below or from a pole
- LV board: number of outgoing ways, rating of each, metering and any control signals
- Reactive power compensation: total kvar, stepped or fixed, detuned or plain
- Site: altitude, ambient temperature range, humidity, wind, seismic requirement, and whether the site is coastal or dusty
- Enclosure colour and any customer branding on the doors
- Foundation: built by you to our drawing, or supplied by us

Transport and Installation

- The substation ships as one piece on a flatbed and is craned straight onto the foundation
- Site work is the foundation, the cable entries, the incoming and outgoing cables and the earth connection
- We issue the foundation drawing with the order confirmation so the civil work runs in parallel with manufacture

Scope of Supply

Standard	Enclosure or tank, MV switching, transformer, LV board, internal wiring
Tested	Functional check and routine tests in our works
Shipped	One piece, craned by the lifting lugs
Documents	General arrangement, single line diagram, foundation drawing, test records
Not included	Foundation civil works, incoming and outgoing cables, site earthing

Options

- Forced ventilation or air conditioning in the transformer room (European type)
- Remote metering, RTU and communication for distribution automation
- Anti-condensation heaters and door position contacts
- Upgraded coating system for coastal and industrial atmospheres
- Anti-theft door locks and intrusion alarm contacts

After Delivery

- Commissioning support by video call as standard; an engineer on site by arrangement
- Spares kept to order: HV fuses, bayonet fuse elements, capacitor steps and door hardware
- Drawings are issued in PDF and in editable format for the project record

Lead time

Standard configurations ship in 3 – 4 weeks; a substation built to a project single line diagram takes 4 – 6 weeks from drawing approval.

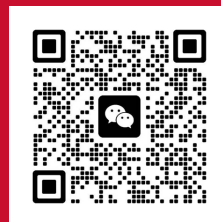
The ownership of the version belongs to Jiangxi HARRL Group Co., Ltd. and all rights are reserved to the extent permitted by law. Due to product development and technical improvements, the actual products sold may differ from those shown in this brochure, and the company reserves the relevant right.



Web: harrlgroup.com
Email: sales@harrlgroup.com
Tel / WhatsApp: +86 183 7998 3771
Address: No. 388 Quanshun Road, Nanchang County,
Nanchang, Jiangxi, China



Scan for WhatsApp



Scan for WeChat