Test Project

Change project – C2

Electrical Installations

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Install an isolator before EV1. The isolator can be located anywhere on the wall. 6

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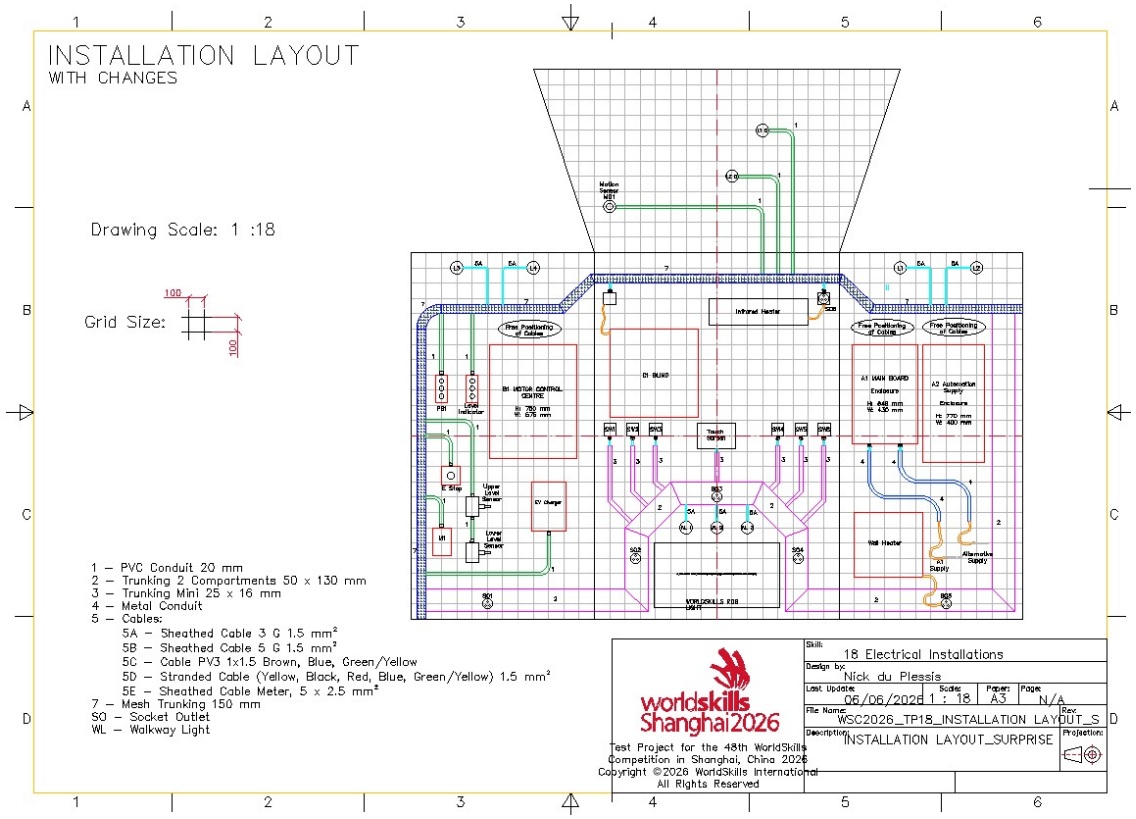
Install the POWER B equipment 6

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Change project overview

The client requires an alternative power supply and an electric vehicle charging station. Make the following changes to the Day 1 installation.

Route the alternative supply through main switchboard A1. Install an automatic changeover switch so that the selected single-phase supply feeds automation switchboard A2. Install the EV1 charger and update its protection.



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2.1 Alternative supply and changeover

Install the automatic dual-power changeover switch in A1 POWER B, the middle row shown in Figure 1.

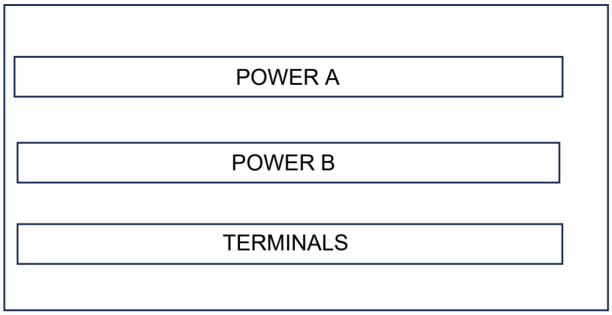


Figure 1 A1 row layout — POWER A at the top, POWER B in the middle and TERMINALS below

Use the existing A2 Supply protection

The existing A2 Supply circuit breaker in A1 POWER B, position 1, shall become the incoming protection feeding the automatic changeover switch.

Install the POWER B equipment

Install the following equipment in this sequence in the middle row of A1.

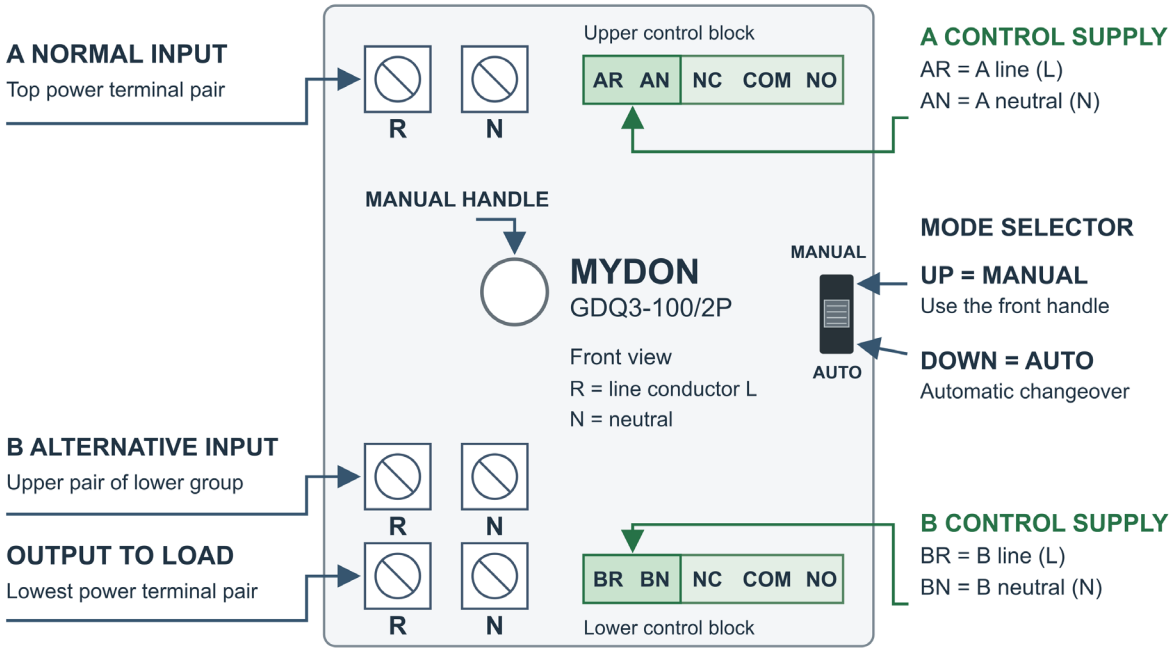
ORDER	EQUIPMENT AND RATING	PURPOSE
4	MCB; 230 V; 6 kA; 2P; C25 A	Alternative supply
5	MYDON-GDQ3-1002P-63A	2-pole automatic dual-power changeover switch

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MYDON automatic transfer switch

GDQ3-100/2P | Two poles | One page connection and operation guide

ATS = Automatic Transfer Switch. Connect normal supply A and alternative supply B to the ATS. The selected output supplies the load.



Power and control connections

CIRCUIT	POWER TERMINALS	CONTROL LINKS
A normal supply	Top pair: L to R; neutral to N	A R (L) to AR; A N to AN
B alternative supply	Middle pair: L to R; neutral to N	B R (L) to BR; B N to BN
Output to load	Lowest pair: R to L; N to neutral	Keep control feeds on incoming A and B

Automatic and manual operation

AUTO - selector DOWN. The ATS changes supply automatically. The control supply inputs AR/AN (A) and BR/BN (B) must be connected to their respective incoming supplies for AUTO changeover to operate.

MANUAL - selector UP. Use the front handle to change supply. Return the selector to AUTO when automatic operation is required.

Auxiliary contacts on both green blocks

COM = common, NO = normally open, NC = normally closed. These are voltage-free changeover contacts; they do not provide a voltage. COM changes between NO and NC depending on the supply condition. Verify the contact states with supply A and supply B.

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2.2 EV1 charging station

Install the charging station

Install an EVinn TA-GB-W7.7kW electric vehicle charger, identified as EV1.

Install an isolator before EV1. The isolator can be located anywhere on the wall.

Place the EV protection in A1 POWER A

Install the circuit breaker protecting EV1 in A1 POWER A, the top row shown in Figure 1.

Install the POWER B equipment

Install the following equipment in this sequence in the middle row of A1.

ORDER	EQUIPMENT AND RATING	PURPOSE
3	MCB; 230 V; 6 kA; 2P; C25 A	EV Charger

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