

Kohler PW 6000

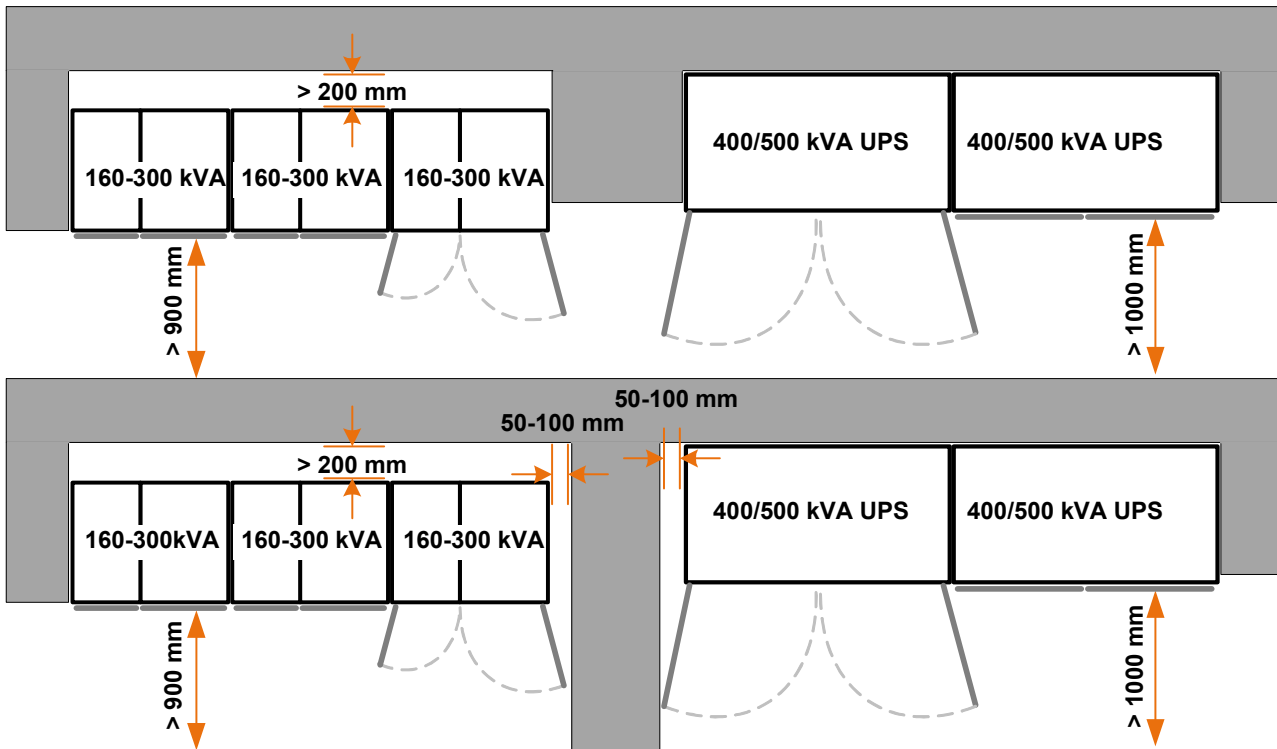
(160–500 kVA S2)

Parallelable up to 5 MVA/MW

Technical Specification



Clearances



The above diagram illustrates the recommended clearances to be provided around the UPS cabinets.

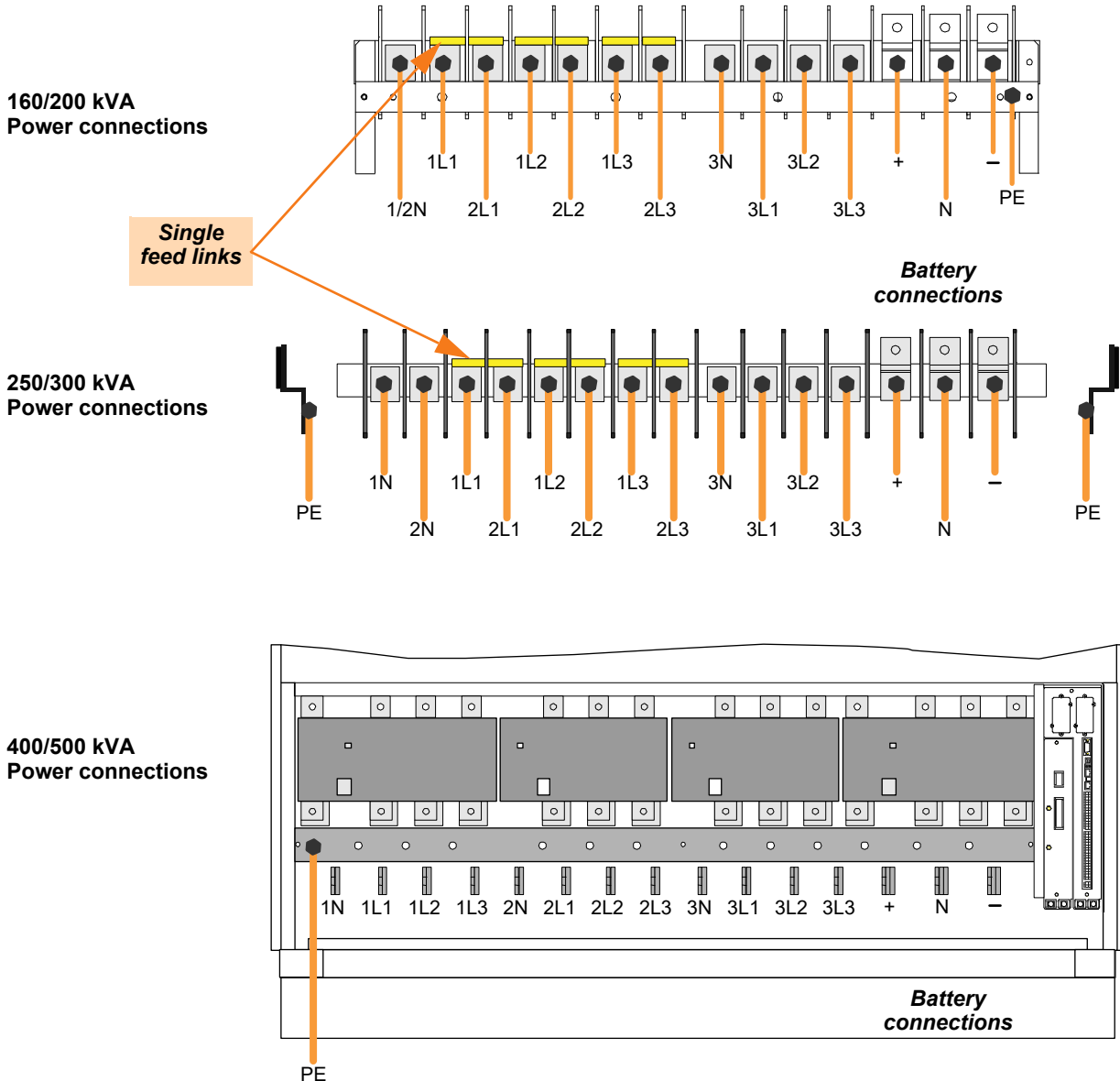
Notes:

1. All cables enter the UPS via the bottom of the cabinet (an optional Top Cable Entry cabinet is available for the 400/500 kVA model) therefore no service/installation access is required from the rear or sides of the cabinets.
2. A minimum of 900-1000 mm clearance is required at the front of the cabinets for service access, and where possible this should be increased to allow safe passage in front of the UPS with the doors open.
3. In order to gain full access to some internal components it is necessary to open the doors by slightly more than 90° . If the cabinet is located adjacent to a partition or wall that extends beyond the front of the cabinet a clearance of 50-100 mm should be provided between the cabinet and the partition to allow the doors to open adequately, as illustrated in the lower diagram above. Note that there is no space required between cabinets.
4. The 160-300 kVA cabinets are force-cooled by rear-mounted extraction fans which require a minimum of 200 mm space at the rear of the cabinet to allow adequate exhaust air flow.
5. The 400/500 kVA cabinets are force-cooled by roof-mounted extraction fans. These cabinets do not require any space at the rear of the cabinet but a minimum free space of 400 mm is required above the cabinets.

UPS POWER CABLING

All power cables are connected to a row of busbars located near the bottom of the UPS cabinet, as shown. An optional Top Entry cabinet is available for the 400/500 kVA models.

UPS Module power connections



Single/dual feed input

The UPS can be configured for a 'single feed' or 'dual feed' input connection. For a single feed input (standard), links are fitted between the bypass mains terminals and input mains terminals and the input mains cables therefore feed both supplies. The single feed links are removed for a dual feed input configuration and the bypass mains terminals are connected to a dedicated bypass mains power source.

Note: Internal rear access is required to reconfigure the single/dual feed links in a 400/500 kVA model. If a 400/500 kVA UPS cabinet is to be placed against a wall, any configuration change must be completed before it is finally positioned.

FUSE & CABLE SIZING

It is the customer's responsibility to provide all the external fuses, isolators and cables that are required to connect the UPS inputs and outputs to their respective power distribution boards and battery system.

Input/output supply protection

The UPS input/bypass mains supply cables must be connected via an LV-Distribution board in which suitable fuses or circuit breakers are installed to provide both overload protection and a means of isolating the UPS from the mains supply when required. Similarly, the UPS output cables should be connected to the load equipment via a load distribution panel containing suitable load protection devices. The input/output AC and DC cables and protective devices are identified in the diagrams on page 18 and page 19.

The fuse and cable sizing details given in the following tables are provided for guidance only:

- The UPS must be installed to prescribed IEC or local regulations (e.g. BS7671).
- The required DC cables and battery fuses are bespoke to the installation, depending on the battery type and quantity. Site-specific DC cable and fuse ratings can be provided by Kohler Uninterruptible Power on request.

Cabling details for a single-feed input UPS cabinet

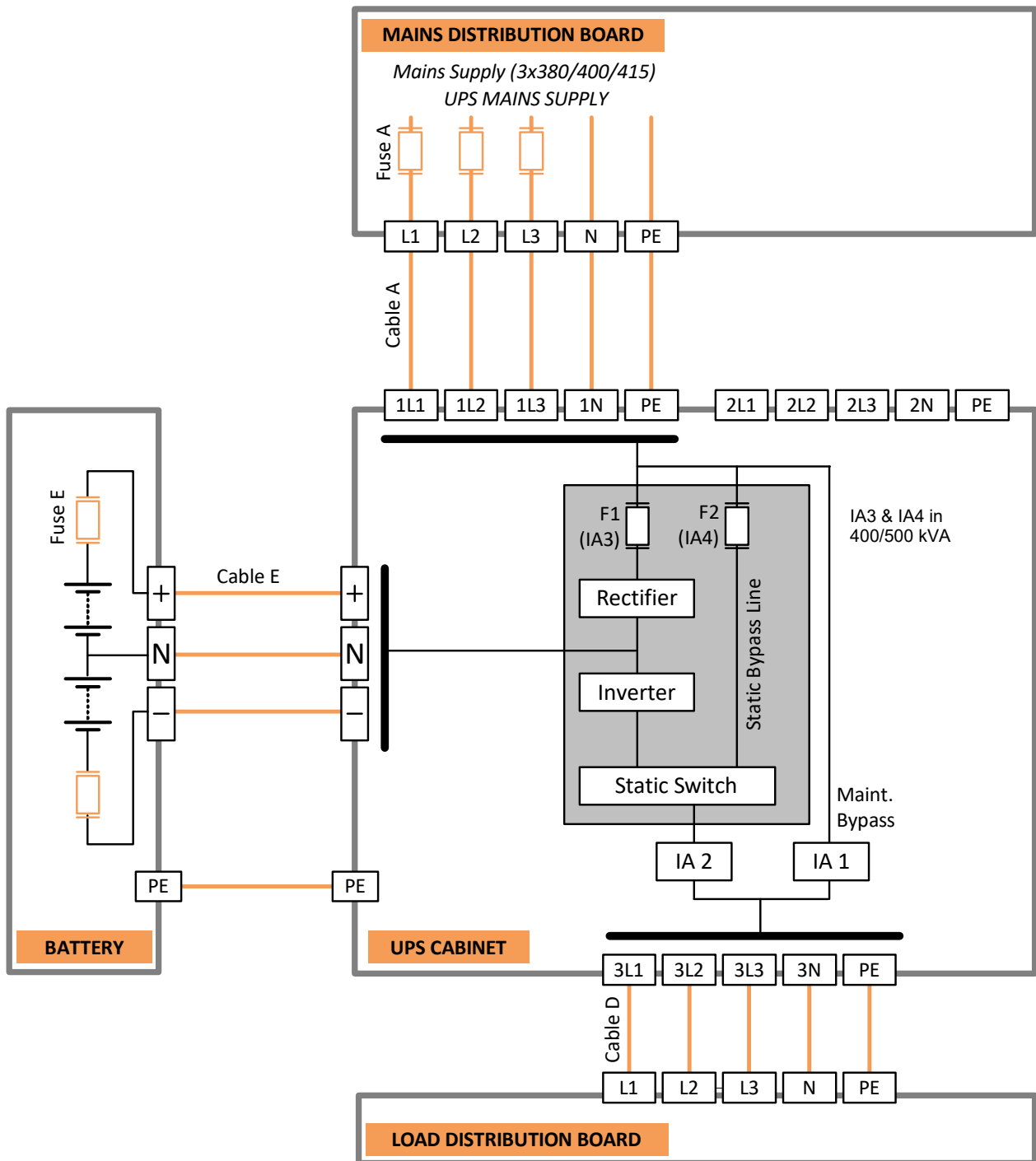
UPS CONNECTIONS (Single-feed input)									
UPS Module Rating (kVA)			160	200	250	300	400	500	
Cable A	1L1,1L2,1L3,1N, PE ^a	Max input demand ^b	271A	339A	424A	509A	679A	848A	
		Termination	5x M10				3x (5x M12)		
		Tightening Torque	50 Nm				84 Nm		
Fuse A	Agl/CB	3x	250A	350A	400A	500A	630A	800A	
Cable D	3L1,3L2,3L3,3N,PE ^a	Max rated output ^c	232A	290A	361A	433A	577A	722A	
		Termination	5x M10				3x (5x M12)		
		Tightening Torque	50 Nm				84 Nm		
Cable E	BATT+, BATT-, N, PE ^a	Max DC current	Bespoke to installation						
		Termination	4x M10				3x (4x M12)		
		Tightening Torque	50 Nm				84 Nm		
Fuse E	Agl/CB	3x	350A	450A	630A	630A	1000A	1250A	

a. Protective Earth (PE) cable must be sized in accordance with local and national regulations

b. Rating shown for 380V operation at low input voltage and batteries charging. See specification for 400/415V current ratings.

c. Rating shown for 380V operation at full load @ 1.0PF. See specification for 400/415V current ratings.

Single-feed input diagram



Cabling details for a dual-feed input UPS cabinet

UPS CONNECTIONS (Single-feed input)									
UPS Module Rating (kVA)			160	200	250	300	400	500	
Cable B	1L1,1L2,1L3,1N, PE ^a	Max input demand ^b	271A	339A	424A	509A	679A	848A	
		Termination	5x M10				3x (5x M12)		
		Tightening Torque	50 Nm				84 Nm		
Fuse B	Agl/CB	3x	250A	350A	400A	500A	630A	800A	
Cable C	2L1,2L2,2L3,2N, PE ^a	Max bypass demand ^c	232A	290A	361A	433A	577A	722A	
		Termination	5x M10				3x (5x M12)		
		Tightening Torque	50 Nm				84 Nm		
Fuse C	Agl/CB	3x	250A	350A	400A	500A	630A	800A	
Cable D	3L1,3L2,3L3,3N,PE ^a	Max output demand ^c	232A	290A	361A	433A	577A	722A	
		Termination	5x M10				3x (5x M12)		
		Tightening Torque	50 Nm				84 Nm		
Cable E	BATT+, BATT-, N, PE ^a	Max DC current	Bespoke to installation						
		Termination	4x M10				3x (4x M12)		
		Tightening Torque	50 Nm				84 Nm		
Fuse E	Agl/CB	3x	350A	450A	630A	630A	1000A	1250A	

a. Protective Earth (PE) cable must be sized in accordance with local and national regulations

b. Rating shown for 380V operation at low input voltage and batteries charging. See specification for 400/415V current ratings.

c. Rating shown for 380V operation at full load @ 1.0PF. See specification for 400/415V current ratings.

Dual-feed input diagram

