

# PowerWalker VFI CPM Series

**2016 PREMIERE**

- Modular and scalable solution up to 210kVA or 420kVA in parallel cabinets
- Unity Power Factor (kVA = kW)
- Dual input and adjustable charging current
- Maintenance Bypass Switch
- Simple maintenance by hot-swappable modules
- 5.7" display or optional 10" touch panel

The PowerWalker VFI CPM 3/3 series is a modular solution with the capacity to reach 420kW output power. It features hot-swappable power modules available as 20kW and 30kW. Dedicated cabinets manage the flawless operation of the modules, resulting in very low Mean Time To Repair (MTTR) and parallel redundancy.

The standard cabinet offers a 5.7" LCD display for monitoring and control of the whole system. Optionally, a 10" touch panel can be installed instead for even greater overview and convenience. Each unit is equipped with dual input, communication ports, including extension slot. The cabinets can be equipped with UPS modules, battery slots or a combination of both, allowing many different solutions and offering the highest degree of flexibility.



Technical Specification	
<b>INPUT</b>	
Voltage	305-478 VAC at 100% load 208-478 VAC at <70% load
Frequency Range	40Hz - 70Hz (self-adaptive to 50/60Hz)
Input PF	>0.99 at full load >0.98 at half load
THDi	<3% at 100% load
<b>OUTPUT</b>	
Voltage	3 x 380/400/415 VAC (3phase + N +G)
Voltage Regulation	<±1% Stationary balanced; <±2% Stationary unbalanced; <±5% Transitory (load variation 100-0-100%)
Synchronized Frequency	46Hz - 54Hz or 56Hz - 64Hz
Overload in Line Mode	60min @100-110% 10min @111-120% 1min @121-150% 0.2s @>150%
THDv	≤1.5% Full Linear Load ≤4% Non-Linear Load
<b>COMMUNICATION</b>	
Software	PowerWalker ViewPower
Ports	USB, RS232
Intelligent Slot	Yes, for SNMP Manager
Extension Module	Optional for additional Intelligent Slot and Dry Contacts
<b>EFFICIENCY</b>	
AC Mode	94,5%
<b>CHARGER</b>	
Max. charging current per each module	6A for 20kW Module 8A for 30kW Module

The VFI CPM series has a high overload capability, withstanding up to 60s at 150% overload. Additionally, the Unity Power Factor and high efficiency (up to 94.5%) significantly reduces heat loss of the operating equipment. Each 20kW module provides 6A charging current, and 30kW module 8A, allowing it to support effortlessly even with big battery banks. The CPM series combines high flexibility and scalability with great performance and power, making it the optimal solution for all kinds of scenarios.



VFI 30K CPM (30kW Power Module)



## MODULARITY

Each UPS consists of at least a special cabinet, power modules and batteries. Different models of cabinets determine power capacity and functionality, featuring various combinations of slots for power module and battery module. Additionally, each cabinet includes a Switch Module, a STS Module and a LCD Panel (optionally 10" touch panel). Standard cabinets are available in the sizes 30U and 42U, with a compact economy version available in 15U.

## CABINETS



**VFI CPM M60K-E15U**  
Item Nr. 10122073  
Works with 20KW  
Max 3 Modules  
External Batteries



**VFI CPM M90K-E15U**  
Item Nr. 10122074  
Works with 20KW or 30KW  
Max 3 Modules  
External Batteries



**VFI CPM M90K-E15U with  
BPH T480CPM-120x9Ah-14U**  
Item Nr. 10135012  
Battery Cabinet  
for 3x40x9Ah



**VFI CPM S80K-30U**  
Item Nr. 10122075  
Works with 20KW  
Max 4 Modules  
External Batteries

The economy version of the cabinet has the compact size of only 15U and fits 3 modules. Its rating can be adjusted to either fit 3x20kW or 3x30kW modules. As this version comes without a door, the 5.7" LCD screen is embedded into the control module at the top. The unit is designed to work with external batteries, but an extension battery housing is also available (14U; for 120pcs of standard 9Ah/12V batteries) that can be fitted below the main cabinet.

**CABINETS**



**VFI CPM M90K-30U**  
Item Nr. 10122078  
Works with 20KW or 30KW  
Max 3 Modules  
12 Battery Modules (3x40x9Ah)



**VFI CPM M120K-30U**  
Item Nr. 10122079  
Works with 20KW or 30KW  
Max 4 Modules  
External Batteries



**VFI CPM S120K-30U**  
Item Nr. 10122076  
Works with 20KW  
Max 6 Modules  
External Batteries



**VFI CPM M180K-30U**  
Item Nr. 10122080  
Works with 20KW or 30KW  
Max 6 Modules  
External Batteries

Power Module Slots are rated to 20kW or 30kW. The latter can obviously work with the smaller module as well, although a full cabinet cannot consist of modules of different power capacity. User can set total power of the cabinet (below rated maximum) to allow remaining modules to work as hot redundancy. For example VFI CPM M210K-42U can fit up to 8 modules, but maximum power is 210kW, which means if cabinet is full, one module is forced to work as parallel redundant.

Two cabinets can operate in parallel, doubling the power capacity. This function is available for standard 30U and 42U cabinets and it was not implemented in the economy version (15U). For cabinets designed to operate with 30kW modules (marked with symbol M, i.e. VFI CPM M210K-42U) it is possible to reach total 420kW of combined output power. For cabinets designed to operate with only 20kW modules (marked with symbol S, i.e. VFI CPM S200K-42U) it is possible to reach total 400kW of combined output power. Parallel cabinets have to be the same type and they need to be equipped with the same type and quantity of modules.

**CABINETS**



**VFI CPM M120K-42U**  
Item Nr. 10122081  
Works with 20KW or 30KW  
Max 4 Modules  
20 Battery Modules (5x40x9Ah)



**VFI CPM M210K-42U**  
Item Nr. 10122082  
Works with 20KW or 30KW  
Max 8 Modules  
External Batteries



**VFI CPM S200K-42U**  
Item Nr. 10122077  
Works with 20KW  
Max 10 Modules  
External Batteries



**VFI 20K CPM**  
Item Nr. 10122071  
20kW Power Module



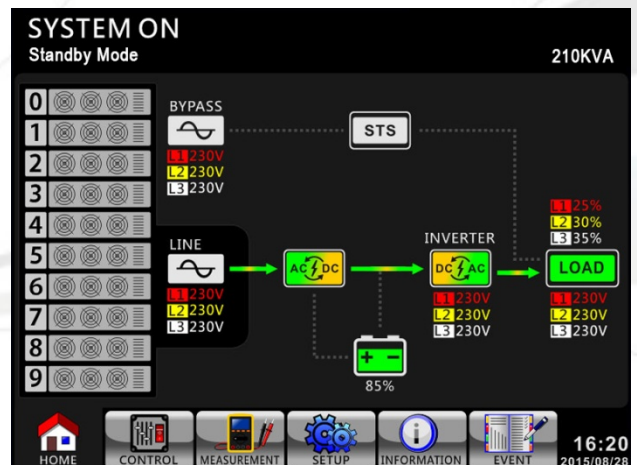
**VFI 30K CPM**  
Item Nr. 10122072  
30kW Power Module



**CPM Battery Module**  
Item Nr. 10135013  
Module for 10pcs of 9Ah/12V

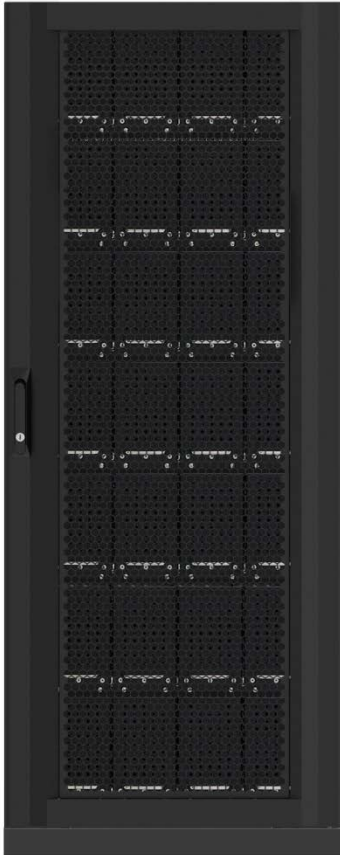
Standard cabinet has fitted door with embedded 5.7" screen. For more demanding customers a 10" touch panel can be installed.

Extra Communication Module (Item Nr. 10131005) is available, offering extension slot for SNMP Manager, Modbus Card or AS/400.



10" LCD Touch Panel (Optional)

**BATTERY CABINETS**



**BPH T480CPM-28T-30U**  
Item Nr. 10135009  
Max 28 Battery Modules  
7x40x9Ah



**BPH T480CPM-40T-42U**  
Item Nr. 10135010  
Max 40 Battery Modules  
10x40x9Ah



**BPH T480CPM-40x100Ah-42U**  
Item Nr. 10135011  
Shelves for batteries  
Max 40x100ah

The PowerWalker VFI CPM Series requires appropriate batteries to be connected to the battery terminal. Battery strings can be adjusted to 32pcs, 34pcs, 36pcs, 38pcs or 40pcs, where the last value is recommended. To facilitate battery sharing between parallel cabinets, batteries are connected in two half-strings (2x16-20pcs) with DC neutral in the middle. Battery Module fits 10pcs of standard 9Ah/12V battery; each 4U battery tray fits 4 such modules. Apart from a special battery compartment for the economy version, there are 3 battery cabinets in offer. Two of them are designed for easily replaceable battery modules, featuring space for 7 trays (280x9Ah) or 10 trays (400x9Ah). Alternatively flexible cabinet with shelves for big capacity batteries can be used with batteries up to 100Ah.

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