



## DC - system type PC05

0,9kW to 11kW – 24/48/110/125V<sub>DC</sub>

*PC05 is a complete system for uninterruptable supply of DC voltage for industrial switchgear, control equipment, process control, etc. where high demands on safe operation is required.*

### Plug-in rectifier modules

Provides flexibility by adjusting the output power, easy maintenance by hot swap and high availability with parallel modules.

### Safe operation and high availability

We support you with commissioning and service as well as education in handling and maintenance.

### Compact design

Monitoring unit, rectifier, distribution and batteries up to 110V<sub>DC</sub>/50Ah in the same enclosure.

### System monitoring

Monitoring of the batteries, rectifier and distribution. Status and alarms distinctly on display, settings via clear menus for easy handling.

### Battery status

Battery circuit test and symmetry monitoring provides good conditions for early detection of errors in the battery. Battery temperature is monitored and adjusts the float-charging voltage automatically.

### Complete documentation

Makes construction and maintenance efficiently and can be delivered in electronic format.

# DC - system type PC05

## General

PC05 is a complete system for uninterruptible supply of DC voltage for industrial switchgear, control equipment, process control, etc. where high demands on safe operation is required. Complete with rectifiers, batteries, battery fuse box, distribution boards, monitoring and documentation.

## Enclosure

Type: Floor cabinet with 19" framework  
 Cable inlet: from bottom or above  
 Height: 2000 mm  
 Width: 600 mm  
 Depth: 400 mm  
 Color: RAL 7035 light grey  
 Class of enclosure: IP21  
 Ventilation: Temperature controlled fans in rectifier modules, otherwise natural

## Environment

Ambient temperature: Operation, 0 till +40 °C  
 Storage, -40 to +70 °C  
 Humidity: < 90 % RH, non-condensed  
 Altitude a.s.l.: < 2000 m

## Input AC (for rectifier)

Input voltage: 110-240V<sub>AC</sub> 1-phase  
 Frequency: 47 – 63 Hz 1-phase  
 Power factor 1-phase: > 0.95 at 230V<sub>AC</sub>, full load  
 Connection 1-phase: 0.2 – 6 mm<sup>2</sup>, per rectifier module  
 Other: See table 1 & 2

## Output DC

Output voltage, nominal: 24/48/110/125V<sub>DC</sub>  
 Connection: 0.5 – 10 mm<sup>2</sup>, disconnect terminal  
 Voltage regulation: < 0.5 % of nominal output voltage  
 < 1% within 3 seconds, 0-100/100  
 10 % load change  
 Current regulation: < 1 % of rated current  
 Current limit range: 0 – 100 % of rated current  
 Ripple voltage: < 0.1 %<sub>RMS</sub>  
 Other: See table 1 & 2

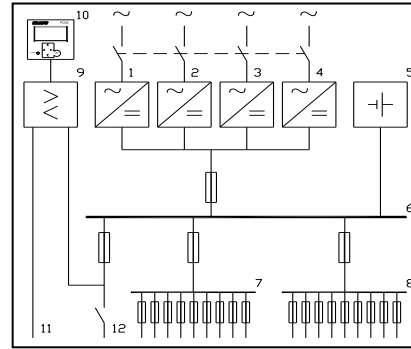
Nominal data		Maximum number of rectifier modules per module type					
U <sub>NOM</sub> (V <sub>DC</sub> )	I <sub>RATED</sub> (A)	10A	12A	20A	25A	50A	60A
24	40			2			
	80			4			
	120						2
48	24		2				
	50		4		2		
	100				4	2	
110/125	20	2					
	40	4					

Table 1. Ratings 1-phase system



Output data			Input data			Power loss**
U <sub>NOM</sub> (U <sub>RANGE</sub> ) V <sub>DC</sub>	I <sub>RATED</sub> A	Output power W <sub>MAX</sub>	Input voltage range V <sub>AC</sub>	Mains power* VA	Mains current* A <sub>RMS</sub>	
24 (21-28)	20	560	85-295	670	3.4	92
	60	1680	180-264	1960	10.0	187
48 (42-56)	12	672	85-295	800	4.1	92
	25	1400	85-295	1600	8.2	156
	50	2800	150-295	3150	16.1	312
110/125 (97.5-145)	10	1250	90-300	1410	7.2	139

Table 2. Ratings 1-phase system, \* max at 195V<sub>AC</sub>, \*\* type at 230V<sub>AC</sub>



Singel line diagram PC05

## Battery fuse box

Configuration: Blade fuses, 4-7 pole separated groups

## Distribution module type DM199

Number of modules: 1 – 7 pcs.  
 Fuse type: Diazed type DII/DIII or MCB  
 Groups per module: 9 pcs (DII, MCB), 6 pcs (DIII)  
 Monitoring: Bipolar zero voltage  
 Indication: Red/green LED per way

## Capacity test

Load: Max 25 A  
 Connection: 4-16 mm<sup>2</sup> screw terminal

## Monitoring unit type PCM2

Monitoring of the complete DC system. Clear graphical display for showing and setting of alarms, operating data, etc. Remote alarm via 4 freely configurable relays.



Distribution: Fuse monitoring, earth fault monitoring, external alarm  
 Battery: Temperature monitoring, battery circuit test, battery symmetry monitoring  
 Rectifier: Over/under voltage, rectifier fault, temperature compensated float charge, automatic equalizing charge

Battery Internally: Valve regulated, up to 110V<sub>DC</sub> 50Ah  
 Externally: Any types on battery stand

## Options

Remote alarm: Relay 5-8  
 Inverter (0.5, 1 or 2 kVA),  
 AC-distribution,  
 DC/DC-converter  
 Double systems with input switches, alarm panel and other by agreement

## Standards

Safety: EN 50178  
 EMC, immunity: EN 61000-6-2  
 EMC, emission: EN 61000-6-4  
 Battery installations: EN 50272-2

