

# Technical Data

## RO Combiner Box UF Combiner Box

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(Rev. 08 / June 2015)

**SPIM / H module**



**RO / UF combiner box**



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## Application

In this document are represented the functional block diagrams of RO (*Figure 1*) and UF (*Figure 2*) combiner boxes (cabinets). The cabinets are designed for reverse osmosis (RO) and ultra-filtration (UF) processes for KSB filtration pumping solar plants. The systems are implemented with SPIM / H converters. Each of the described systems has two versions with different power and respectively different converters (*Table 1*). The SPIM / H converters provide MPPT functionality, which guarantees working at PV maximum power point. The MPPT is implemented by "Perturb & Observe" (PO) algorithm.

## RO Combiner Box

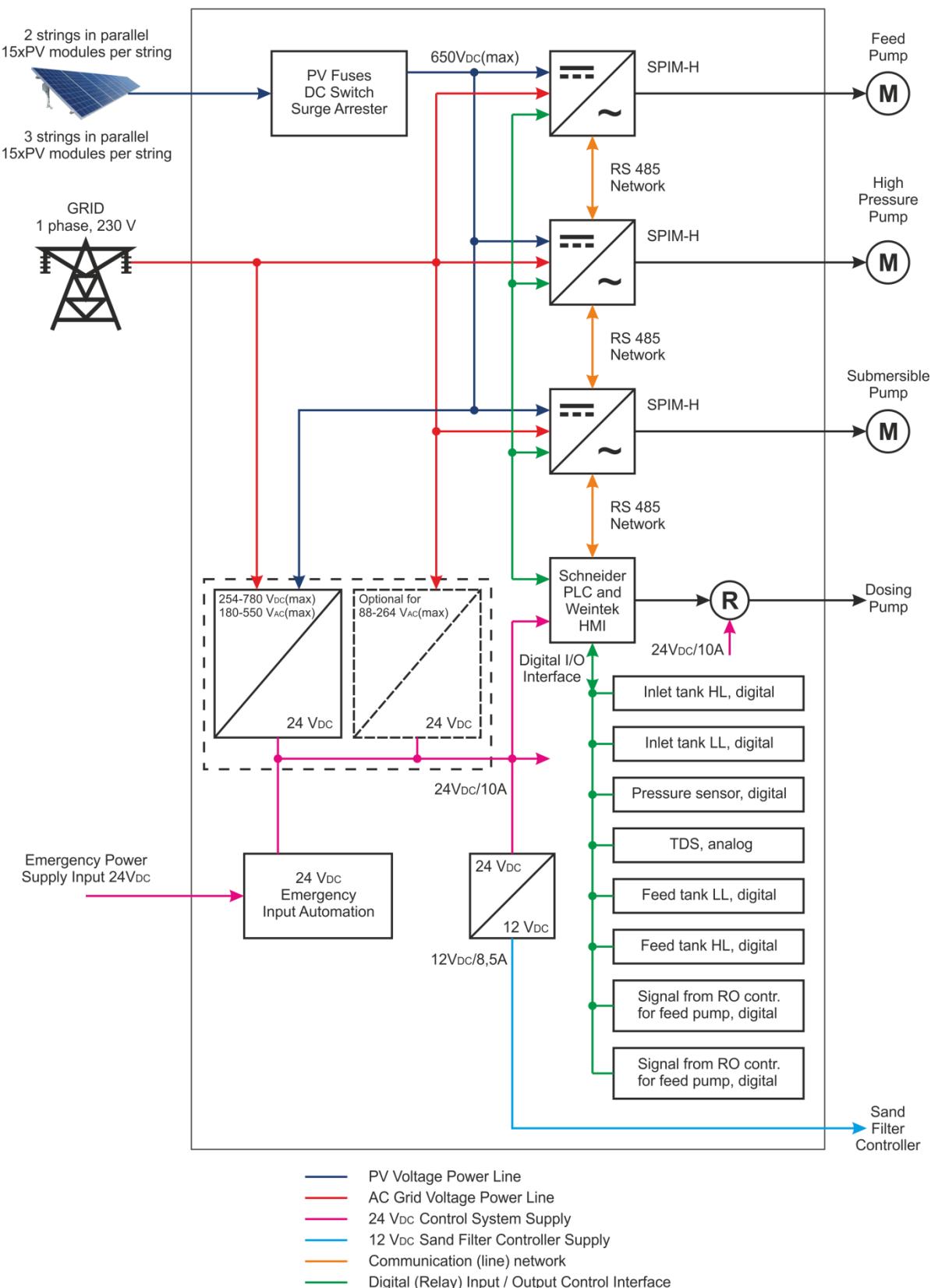


Figure 1 - RO Combiner Box

## UF Combiner Box

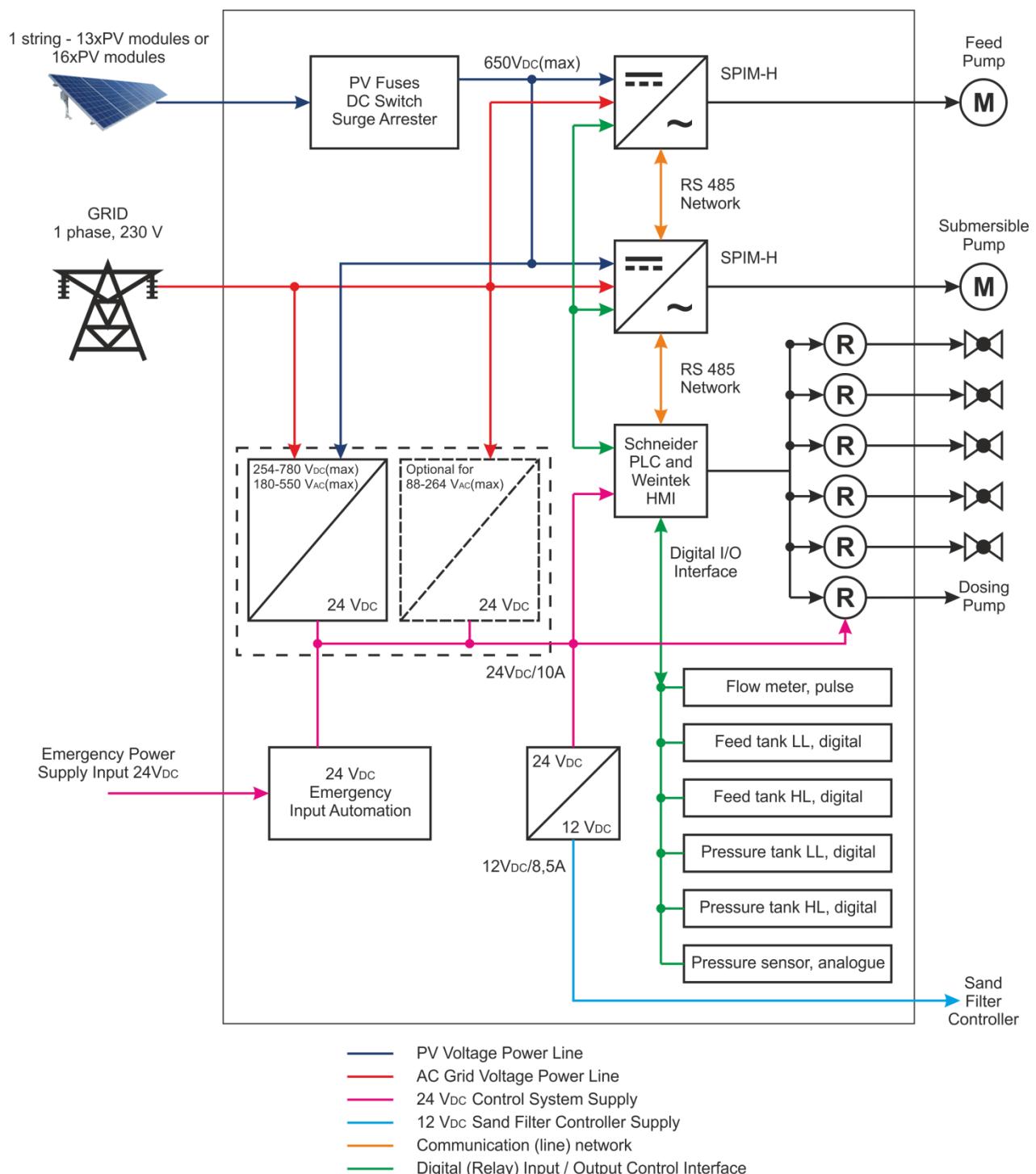


Figure 2 - UF Combiner Box

Table 1 - RO and UF Cabinets - pumps and converters

<b>RO System Ver. 1</b>	<b>Pump</b>	<i>Feed pump:</i> 1,47kW; 3P/230Vac; 30÷50(60)Hz	<i>High pressure pump:</i> 2,46kW; 3P/230Vac; 30÷50(60)Hz	<i>Submersible pump:</i> 1,49kW; 3P/230Vac; 30÷50(60)Hz
	<b>Converter</b>	SPIM / H 1,5-230	SPIM / H 3,0-230	SPIM / H 1,5-230
<b>RO System Ver. 2</b>	<b>Pump</b>	<i>Feed pump:</i> 0,90kW; 3P/230Vac; 30÷50(60)Hz	<i>High pressure pump:</i> 1,34kW; 3P/230Vac; 30÷50(60)Hz	<i>Submersible pump:</i> 0,75kW; 3P/230Vac; 30÷50(60)Hz
	<b>Converter</b>	SPIM / H 1,5-230	SPIM / H 1,5-230	SPIM / H 0,8-230
<b>UF System Ver. 1</b>	<b>Pump</b>	<i>Feed pump:</i> 0,90kW; 3P/230Vac; 30÷50(60)Hz	--	<i>Submersible pump:</i> 0,75kW; 3P/230Vac; 30÷50(60)Hz
	<b>Converter</b>	SPIM / H 1,5-230	--	SPIM / H 0,8-230
<b>UF System Ver. 2</b>	<b>Pump</b>	<i>Feed pump:</i> 0,69kW; 3P/230Vac; 30÷50(60)Hz	--	<i>Submersible pump:</i> 0,51kW; 3P/230Vac; 30÷50(60)Hz
	<b>Converter</b>	SPIM / H 0,8-230	--	SPIM / H 0,8-230

## Contacts

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