

## Your cost-effective generator and turbine control solution HyCon PowerDuo

HyCon PowerDuo combines Voith Hydro's excitation and digital governor solutions, bringing excellence to power generation. The combined solution is suitable for all turbine types and is in compliance with international standards.

Very easy to integrate into control systems, HyCon PowerDuo also follows the standard industrial communication protocols.



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Actual		Setpoint		^		Not read	v for start			O overnor
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Rotor Process Values			J Operation	~	Datalog	Laval	10.00		100.0 %	to SMC
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Voltage	-0	0 V			Curve	Flow	0.0	0.0 m³/s	+ Operation	Start Mode
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			Under Excitation Over Excitation			Blade Position	0.0	0.0 %	0.0 %	
Stop Sta	art Lotz	Mode	Mode Mode PF P.U.	1	Log on	Stop S	tart Local	Isolated	Control Control Control	Log on
Excitation OFF	Local	AVR	Trip request active	1		Stop		Not ready for start	I I I	Ĩ.
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## Combined the functionalities of two excellence automation products to increase their performance

Our HyCon PowerDuo solution gives customers two systems in one. It delivers cost efficiency to save money from the very start, optimized power during operation, and greater reliability with fewer operating components.

Unlike separate automation elements from one or more suppliers, a combined automation solution provides additional tools to optimize operation and maintenance of the turbine and generator.

This powerful duo is the result of more than 150 years of Voith know-how in power generation and turbine control, bringing additional benefits in energy production per each cubic meter of water – all in one single system.

## Seek immediate benefits

- + More cost effective than separate excitation and digital governor solutions
- + Standard industrial off-the-shelf controller
- + Increased reliability compared to independent governor and exciters
- + Increased simplicity for overall speed and voltage regulation and control
- + All the functionalities are available to be edited directly in the HMI
- + Advanced graphical programming tools, including an animated capability curve
- + Redundancy concepts for rectifier and controllers
- + Remote diagnosis
- + Extended functionality like cam curve optimization



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