/ Perfect Welding / Solar Energy / Perfect Charging

FRONIUS GALVO

The future-proof inverter for small self-consumption systems

SnapINverter Technology

HF transformer switchover

Integrated data communication

Smart Grid Ready

Zero feed-in

With power categories ranging from 1.5 to 3.1 kW, the Fronius Galvo is perfect for households – and is especially suitable for self-consumption systems. The integrated energy management relay allows the self-consumption component to be maximised.

A host of other smart features make the Fronius Galvo one of the most future-proof inverters in its class: for example, the integrated datalogging, the simple connection to the internet by WLAN, or the plug-in card technology for retrofitting additional functions.

TECHNICAL DATA FRONIUS GALVO

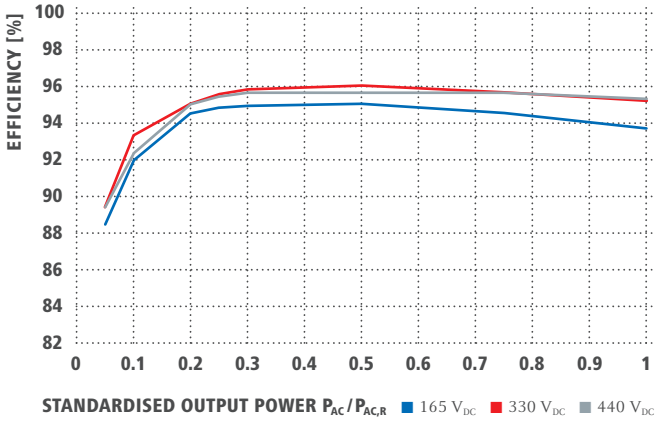
INPUT DATA	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
Number of MPP trackers			1		
Max. input current ($I_{dc\ max}$)	13.3 A	17.8 A	16.6 A	19.8 A	20.7 A
Max. array short circuit current	20.0 A	26.8 A	24.8 A	29.6 A	31.0 A
DC input voltage range ($U_{dc\ min}$ - $U_{dc\ max}$)	120 - 420 V		165 - 550 V		
Feed-in start voltage ($U_{dc\ start}$)	140 V		185 V		
Usable MPP voltage range	120 - 335 V		165 - 440 V		
Number of DC connections			3		
Max. PV generator output ($P_{dc\ max}$)	3.0 kW_{peak}	4.0 kW_{peak}	5.0 kW_{peak}	6.0 kW_{peak}	6.2 kW_{peak}

OUTPUT DATA	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
AC nominal output ($P_{ac,r}$)	1,500 W	2,000 W	2,500 W	3,000 W	3,100 W
Max. output power	1,500 VA	2,000 VA	2,500 VA	3,000 VA	3,100 VA
AC output current ($I_{ac\ nom}$)	6.5 A	8.7 A	10.9 A	13.0 A	13.5 A
Grid connection (voltage range)	1~NPE 230 V (+17% / -20%)				
Frequency (frequency range)	50 Hz / 60 Hz (45 - 65 Hz)				
Total harmonic distortion	< 4 %				
Power factor (cos $\phi_{ac,r}$)	0.85 - 1 ind. / cap.				

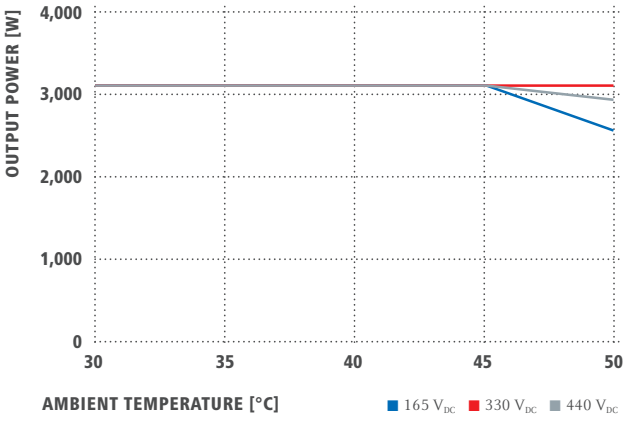
GENERAL DATA	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
Dimensions (height x width x depth)	645 x 431 x 204 mm				
Weight	16.4 kg		16.8 kg		
Degree of protection	IP 65				
Protection class	1				
Overvoltage category (DC / AC) [2]	2 / 3				
Night-time consumption	< 1 W				
Inverter concept	HF transformer				
Cooling	Regulated air cooling				
Installation	Indoor and outdoor installation				
Ambient temperature range	-25 - +50 °C				
Permitted humidity	0 to 100 %				
Max. altitude	2,000 m / 3,500 m (unrestricted / restricted voltage range)				
DC connection technology	3x DC+ and 3x DC- screw terminals 2.5 - 16 mm²				
AC connection technology	3-pin AC screw terminals 2.5 - 16 mm²				
Certificates and compliance with standards	ÖVE / ÖNORM E 8001-4-712, AS 4777-2, AS 4777-3, AS3100, DIN V VDE 0126-1-1/A1, VDE AR N 4105, IEC 62109-1-2, IEC 62116, IEC 61727, CER 06-190, CEI 0-21, EN 50438, G83, G59, NRS 097				

[1] Available for countries where 3 kW restrictions apply. [2] Testing to IEC 62109-1.
Further information regarding the availability of the inverters in your country can be found at **www.fronius.com.**

FRONIUS GALVO 3.1-1 EFFICIENCY CURVE



FRONIUS GALVO 3.1-1 TEMPERATURE DERATING



TECHNICAL DATA FRONIUS GALVO

EFFICIENCY	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
Max. efficiency	95.9 %	96.0 %		96.1 %	
European efficiency (ηEU)	94.5 %	94.9 %	95.2 %	95.4 %	95.4 %
MPP adaptation efficiency			> 99.9 %		

PROTECTION DEVICES	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
DC insulation measurement	Warning/shutdown (depending on country setup) at RISO < 600 kOhm				
Overload behavior	Operating point shift, power limitation				
DC disconnector	Included				
Reverse polarity protection	Yes				

INTERFACES	GALVO 1.5-1	GALVO 2.0-1	GALVO 2.5-1	GALVO 3.0-1 [1]	GALVO 3.1-1
WLAN / Ethernet LAN	Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON)				
6 inputs and 4 digital inputs/outputs	Interface to ripple control receiver				
USB (A socket) [2]	Datalogging, inverter update via USB flash drive				
2x RS422 (RJ45 socket) [2]	Fronius Solar Net				
Signalling output [2]	Energy management (floating relay output)				
Datalogger and Webserver	Included				
External input [2]	S0-Meter Interface / Input for overvoltage protection				
RS485	Modbus RTU SunSpec or meter connection				

[1] Available for countries where 3 kW restrictions apply. [2] Also available in the light version.
Further information and technical data can be found at **www.fronius.com.**

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THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 3,800 employees worldwide and 1,242 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at **www.fronius.com**

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