



SLIVER3000 Solar System Inverter Specifications

Your SLIVER3000 system will be supplied with the following inverter:

- Fronius IG Plus 30 V-1

Please note the inverter supplied with your solar system is a minimum 3.0kW and is AS4777 accredited.

The choice of inverter will be at the **sole discretion** of our installer subject to such matters as stock availability.

Please see the following specification sheet for further details and inverter specifications.

FRONIUS IG PLUS TRANSFORMER INVERTER

/ The allrounder with maximum yield.



/ MIX™ concept



/ HF transformer switchover



/ Module Manager



/ PC board replacement concept



/ Mounting system



/ Ventilation concept



/ The Fronius IG Plus generation of inverters represents an evolution of the proven Fronius IG product family. Power categories from 2.6 to 12 kW promise suitability for every possible system size. With a maximum efficiency of 95.9%, the Fronius IG Plus range achieves one of the highest values for transformer inverters.

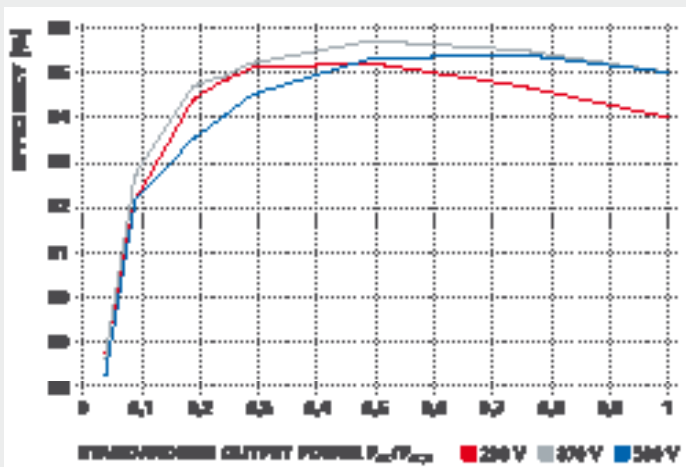
TECHNICAL DATA: FRONIUS IG PLUS (25 V-1, 30 V-1, 35 V-1, 50 V-1)

INPUT DATA	25 V-1 ¹⁾	30 V-1	35 V-1	50 V-1
DC maximum power at $\cos \varphi = 1$	2,740 W	3,170 W	3,710 W	4,260 W
Max. input current ($I_{dc \max}$)	11.9 A	13.8 A	16.1 A	18.5 A
Min. input voltage ($U_{dc \min}$)			230 V	
Feed-in start voltage ($U_{dc \text{ start}}$)			260 V	
Nominal input voltage ($U_{dc, r}$)			370 V	
Max. input voltage ($U_{dc \max}$)			600 V	
MPP voltage range ($U_{mpp \min} - U_{mpp \max}$)			230 – 500 V	
Number of DC inputs			6	
OUTPUT DATA	25 V-1 ¹⁾	30 V-1	35 V-1	50 V-1
AC nominal output ($P_{ac, r}$)	2,600 W	3,000 W	3,500 W	4,000 W
Max. output power	2,600 VA	3,000 VA	3,500 VA	4,000 VA
Max. output current ($I_{ac \max}$)	11.3 A	13.0 A	15.2 A	17.4 A
Grid connection ($U_{ac, r}$)			1-NPE 230 V	
Min. output voltage ($U_{ac \min}$)			180 V	
Max. output voltage ($U_{ac \max}$)			270 V	
Frequency (f_r)			50 Hz / 60 Hz	
Frequency range ($f_{\min} - f_{\max}$)			46 – 65 Hz	
Distortion factor			< 3 %	
Power factor ($\cos \varphi_{ac, r}$)			0.85 – 1 ind. / cap.	
GENERAL DATA	25 V-1 ¹⁾	30 V-1	35 V-1	50 V-1
Dimensions (height x width x depth)			673 x 434 x 250 mm	
Weight			23.8 kg	
Degree of protection			IP 44 ²⁾	
Protection class			1	
Overvoltage category (DC / AC)			2 / 3	
Night-time consumption CL			< 1 W	
Inverter concept			HF transformer	
Cooling			Regulated air cooling	
Installation			Indoor and outdoor installation	
Ambient temperature range			from -20°C – +55°C	
Permitted humidity			0% – 95%	
DC connection technology			Screw terminal connection 1.5 mm ² – 16 mm ²	
AC connection technology			Screw terminal connection 2.5 mm ² – 35 mm ²	
Certificates and compliance with standards			DIN V VDE V 0126-1-1, ÖVE / ÖNORM E 8001-4-712, UTE C15-712-1, EN 50438, G83, G59, C 10 / 11, CER 06-190, Guida per le connessioni alla rete elettrica di ENEL Distribuzione, AS 4777-1, AS 4777-2, AS 4777-3	

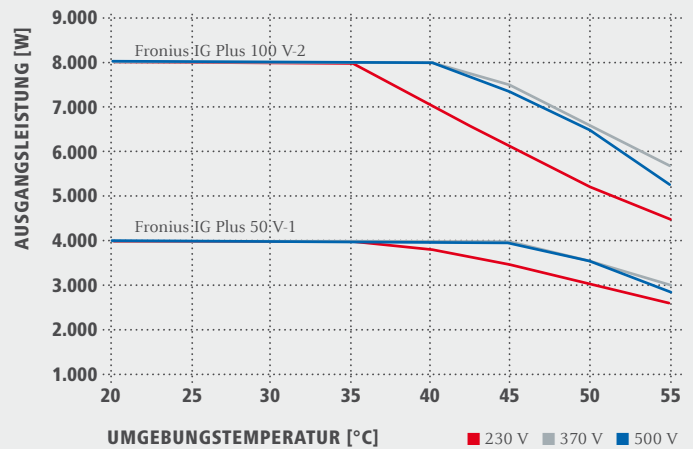
¹⁾ Fronius IG Plus 25 V-1 devices may not be used in Italy.

²⁾ Please refer to the information in the operating instructions regarding correct installation of the inverter.

FRONIUS IG PLUS 50 V-1 EFFICIENCY CURVE



FRONIUS IG PLUS V TEMPERATURE DERATING



TECHNICAL DATA: FRONIUS IG PLUS (25 V-1, 30 V-1, 35 V-1, 50 V-1)

EFFICIENCY	25 V-1 ¹⁾	30 V-1	35 V-1	50 V-1
Max. efficiency	95.7 %	95.7 %	95.7 %	95.7 %
European efficiency (η_{EU})	94.6 %	94.8 %	95.0 %	95.0 %
η at 5% $P_{ac,r}$ ²⁾	87.5 / 87.3 / 86.8 %	87.9 / 87.6 / 87.2 %	88.2 / 88.1 / 87.4 %	88.7 / 88.6 / 88.2 %
η at 10% $P_{ac,r}$ ²⁾	89.7 / 89.8 / 89.4 %	90.4 / 90.8 / 90.2 %	91.6 / 92.3 / 91.5 %	92.1 / 92.7 / 92.1 %
η at 20% $P_{ac,r}$ ²⁾	93.0 / 93.6 / 92.8 %	93.6 / 94.2 / 93.2 %	94.1 / 94.6 / 93.4 %	94.4 / 94.7 / 93.5 %
η at 25% $P_{ac,r}$ ²⁾	93.8 / 94.3 / 93.3 %	94.3 / 94.6 / 93.5 %	94.6 / 94.8 / 93.7 %	94.8 / 94.9 / 94.0 %
η at 30% $P_{ac,r}$ ²⁾	94.4 / 94.8 / 93.6 %	94.7 / 94.9 / 93.8 %	94.9 / 95.0 / 94.1 %	95.1 / 95.2 / 94.5 %
η at 50% $P_{ac,r}$ ²⁾	95.2 / 95.4 / 94.7 %	95.2 / 95.5 / 94.9 %	95.3 / 95.7 / 95.3 %	95.2 / 95.7 / 95.3 %
η at 75% $P_{ac,r}$ ²⁾	95.2 / 95.7 / 95.3 %	95.1 / 95.7 / 95.4 %	94.9 / 95.6 / 95.4 %	94.7 / 95.5 / 95.4 %
η at 100% $P_{ac,r}$ ²⁾	94.9 / 95.6 / 95.4 %	94.7 / 95.5 / 95.4 %	94.4 / 95.2 / 95.1 %	94.0 / 95.0 / 95.0 %
MPP adaptation efficiency	> 99.9 %			

PROTECTIVE EQUIPMENT	25 V-1 ¹⁾	30 V-1	35 V-1	50 V-1
DC insulation measurement	Warning/shutdown (depending on country setup) at $R_{ISO} < 500 \text{ k}\Omega$			
Overload behaviour	Operating point shift, power limitation			
DC circuit breaker	Integrated			

¹⁾ Fronius IG Plus 25 V-1 devices may not be used in Italy.

²⁾ and at $U_{mpp \text{ min}} / U_{dc,r} / U_{mpp \text{ max}}$

TECHNICAL DATA: FRONIUS IG PLUS (70 V-2, 100 V-2, 100 V-3, 120 V-3, 150 V-3)

INPUT DATA	70 V-2	100 V-2	100 V-3 ¹⁾	120 V-3	150 V-3
DC maximum power at $\cos \varphi = 1$	6,880 W	8,520 W	8,430 W	10,590 W	12,770 W
Max. input current ($I_{dc,max}$)	29.9 A	37.0 A	36.7 A	46.0 A	55.5 A
Min. input voltage ($U_{dc,min}$)			230 V		
Feed-in start voltage ($U_{dc,start}$)			260 V		
Nominal input voltage ($U_{dc,r}$)			370 V		
Max. input voltage ($U_{dc,max}$)			600 V		
MPP voltage range ($U_{mpp,min} - U_{mpp,max}$)			230 – 500 V		
Number of DC inputs			6		

OUTPUT DATA	70 V-2	100 V-2	100 V-3 ¹⁾	120 V-3	150 V-3
AC nominal output ($P_{ac,r}$)	6,500 W	8,000 W	8,000 W	10,000 W	12,000 W
Max. output power	6,500 VA	8,000 VA	8,000 VA	10,000 VA	12,000 VA
Max. output current ($I_{ac,max}$)	14.1 A (28.3 A) ²⁾	17.4 A (34.8 A) ²⁾	11.6 A	14.5 A	17.4 A
Grid connection ($U_{ac,r}$)	2-NPE 400 V / 230 V (1-NPE 230 V) ²⁾		3-NPE 400 V / 230 V		
Min. output voltage ($U_{ac,min}$)			180 V		
Max. output voltage ($U_{ac,max}$)			270 V		
Frequency (f_r)			50 Hz / 60 Hz		
Frequency range ($f_{min} - f_{max}$)			46 – 65 Hz		
Distortion factor			< 3 %		
Power factor ($\cos \varphi_{ac,r}$)			0.85 – 1 ind. / cap.		

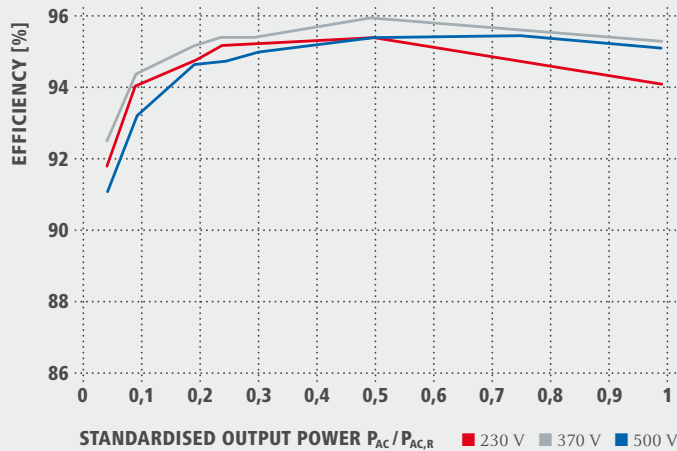
GENERAL DATA	70 V-2	100 V-2	100 V-3 ¹⁾	120 V-3	150 V-3
Dimensions (height x width x depth)	968 x 434 x 250 mm		1.263 x 434 x 250 mm		
Weight	36.9 kg		49.2 kg		
Degree of protection			IP 44 ³⁾		
Protection class			1		
Overvoltage category (DC / AC)			2 / 3		
Night-time consumption			< 1 W		
Inverter concept			HF transformer		
Cooling			Regulated air cooling		
Installation			Indoor and outdoor installation		
Ambient temperature range			from -20°C – +55°C		
Permitted humidity			0% – 95%		
DC connection technology			Screw terminal connection 1.5 mm ² – 16 mm ²		
AC connection technology			Screw terminal connection 2.5 mm ² – 35 mm ²		
Certificates and compliance with standards	DIN V VDE V 0126-1-1, ÖVE / ÖNORM E 8001-4-712, UTE C15-712-1, EN 50438, G83, G59, C 10 / 11, CER 06-190, Guida per le connessioni alla rete elettrica di ENEL Distribuzione, AS 4777-1, AS 4777-2, AS 4777-3				

¹⁾ Fronius IG Plus 100 V-3 devices may only be used in Europe (except Italy) and Australia.

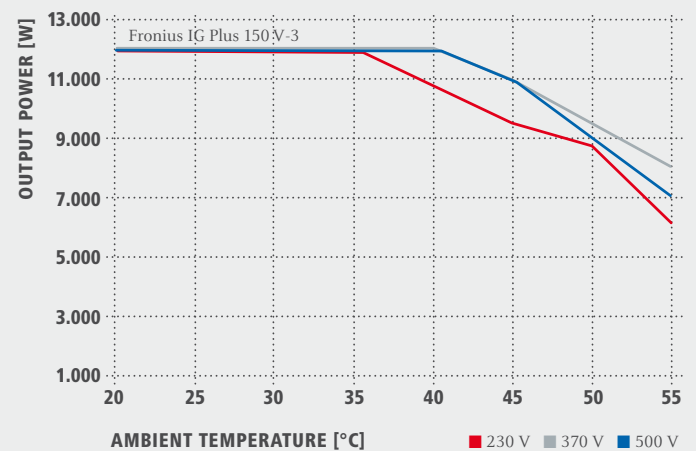
²⁾ Single-phase (opt.)

³⁾ Please refer to the information in the operating instructions regarding correct installation of the inverter.

FRONIUS IG PLUS 150 V-3 EFFICIENCY CURVE



FRONIUS IG PLUS V TEMPERATURE DERATING



TECHNICAL DATA: FRONIUS IG PLUS (70 V-2, 100 V-2, 100 V-3, 120 V-3, 150 V-3)

EFFICIENCY	70 V-2	100 V-2	100 V-3 ¹⁾	120 V-3	150 V-3
Max. efficiency	95.7 %	95.7 %	95.9 %	95.9 %	95.9 %
European efficiency (η_{EU})	95.1 %	95.2 %	95.3 %	95.4 %	95.4 %
η at 5% $P_{AC,r}$ ²⁾	90.4 / 91.1 / 90.3 %	90.9 / 91.4 / 90.5 %	91.7 / 91.9 / 90.3 %	91.5 / 92.2 / 90.7 %	91.8 / 92.5 / 91.1 %
η at 10% $P_{AC,r}$ ²⁾	93.0 / 93.2 / 92.0 %	93.6 / 93.7 / 92.5 %	93.1 / 93.1 / 92.0 %	93.4 / 93.7 / 92.6 %	94.0 / 94.3 / 93.2 %
η at 20% $P_{AC,r}$ ²⁾	94.7 / 94.7 / 94.0 %	94.7 / 95.1 / 94.4 %	94.3 / 94.9 / 94.2 %	94.6 / 95.2 / 94.5 %	94.7 / 95.1 / 94.6 %
η at 25% $P_{AC,r}$ ²⁾	94.9 / 95.1 / 94.4 %	94.9 / 95.3 / 94.8 %	94.6 / 95.2 / 94.5 %	94.7 / 95.3 / 94.7 %	95.1 / 95.3 / 94.7 %
η at 30% $P_{AC,r}$ ²⁾	95.0 / 95.3 / 94.8 %	94.9 / 95.4 / 95.0 %	94.7 / 95.2 / 94.5 %	95.0 / 95.4 / 94.7 %	95.1 / 95.3 / 94.9 %
η at 50% $P_{AC,r}$ ²⁾	95.3 / 95.5 / 94.9 %	95.2 / 95.7 / 95.2 %	95.3 / 95.8 / 95.0 %	95.3 / 95.9 / 95.1 %	95.3 / 95.9 / 95.3 %
η at 75% $P_{AC,r}$ ²⁾	95.0 / 95.7 / 95.3 %	94.7 / 95.5 / 95.3 %	95.3 / 95.9 / 95.3 %	95.0 / 95.5 / 95.4 %	94.7 / 95.6 / 95.4 %
η at 100% $P_{AC,r}$ ²⁾	94.5 / 95.4 / 95.2 %	94.0 / 95.1 / 95.0 %	94.9 / 95.7 / 95.4 %	94.6 / 95.5 / 95.3 %	94.0 / 95.2 / 95.1 %
MPP adaptation efficiency	> 99.9 %				

PROTECTIVE EQUIPMENT	70 V-2	100 V-2	100 V-3 ¹⁾	120 V-3	150 V-3
DC insulation measurement	Warning/shutdown (depending on country setup) at $R_{ISO} < 500 \text{ k}\Omega$				
Overload behaviour	Operating point shift, power limitation				
DC circuit breaker	Integrated				

¹⁾ Fronius IG Plus 100 V-3 devices may only be used in Europe (except Italy) and Australia.

²⁾ and at $U_{mpp \text{ min}} / U_{dc,r} / U_{mpp \text{ max}}$

/ Battery Charging Systems / Welding Technology / Solar Electronics

WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS.

/ Whether Battery Charging Systems, Welding Technology or Solar Electronics - our goal is clearly defined: to be the technology and quality leader. With more than 3,000 employees worldwide, we shift the limits of what's possible - our 650 active patents are testimony to this. While others progress step by step, we innovate in leaps and bounds. Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com.



v01 2011 EN

Fronius Australia Pty Ltd.
90-92 Lambeck Drive
Tullamarine VIC 3043
Australia
pv-sales-australia@fronius.com
www.fronius.com.au

Fronius UK Limited
Maidstone Road, Kingston
Milton Keynes, MK10 0BD
United Kingdom
pv-sales-uk@fronius.com
www.fronius.co.uk

Fronius International GmbH
Froniusplatz 1
4600 Wels
Austria
pv@fronius.com
www.fronius.com