



SHIFTING THE LIMITS

FRONIUS IG 40 / IG 60 HV OUTDOOR

**10 YEAR WARRANTY PROMO
until 30/06/2014¹⁾**

Standard features:

/ **MIX™ Concept** - intelligently adapts to all weather to produce maximum yield

/ **PC Board Replacement** - serviceable on site

With the optional Datamanager card the Fronius IG becomes a Fronius Smart Energy inverter:

/ **Energy Management Functionality** - adapts to your lifestyle by turning on appliances automatically²⁾

/ **Datalogger with WLAN Interface** - easy connection to existing wireless networks & state of the art visualisation of production and remote diagnosis via Solar.web (free monitoring tool)



FEATURES:



FRONIUS MIX™ CONCEPT

/ Maximum yield in partial load range
/ High system stability
/ Longer life
/ Breakdown protection



HF TRANSFORMER SWITCHOVER

/ Consistent performance through three efficiency peaks
/ Highest safety possible
/ Light weight



INTELLIGENT MODULE MANAGER

/ Always finds exact maximum power point
/ Maximum yield guaranteed



PC BOARD REPLACEMENT

/ Fastest service available



WLAN INTERFACE³⁾

/ State of the art monitoring
/ Remote diagnosis



ENERGY MANAGEMENT RELAY³⁾

/ Appliances are turned on automatically²⁾
/ Increased self-consumption

TECHNICAL DATA IG 40 & IG 60 HV:

INPUT DATA	IG 40	IG 60 HV
DC maximum power at $\cos \varphi = 1$	4,410 W	5,380 W
Max. input current ($I_{dc \max}$)	29.4 A	35.8 A
Min. input voltage ($U_{dc \min}$)	150 V	
Feed-in start voltage ($U_{dc \text{ start}}$)	170 V	
Nominal input voltage ($U_{dc,r}$)	280 V	
Max. input voltage ($U_{dc \max}$)	500 V	530 V
MPP voltage range ($U_{mpp \min} - U_{mpp \max}$)	150 - 400 V	
Number of DC inputs	5	

GENERAL DATA	IG 40	IG 60 HV
Dimensions (height x width x depth)	733 x 435 x 225mm	
Weight	20 kg	
Degree of protection	IP 45 ¹⁾	
Protection class	1	
Overtoltage category (DC / AC)	2 / 3	
Night-time consumption	< 1 W	
Inverter concept	HF transformer	
Cooling	Regulated air cooling	
Installation	Outdoor installation	
Ambient temperature range	-20 - +50 °C	
Permitted humidity	0 % to 95 %	
DC connection technology	DC plug (MC4)	
AC connection technology	Screw terminal connection 1.5 - 10 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, AS 4777-1, AS 4777-2, AS 4777-3	

OUTPUT DATA	IG 40	IG 60 HV
AC nominal output ($P_{ac,r}$)	3,500 W	4,600 W
Max. output power	4,100 W	5,000 W
Max. output current ($I_{ac \max}$)	17.8 A	21.7 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 ($f_{\min} - f_{\max}$)	47 - 65 Hz	
Distortion factor	< 3 %	
Power factor ($\cos \varphi_{ac,r}$)	1	

EFFICIENCY	IG 40	IG 60 HV
Max. efficiency	94.3 %	94.3 %
European efficiency (η_{EU})	93.2 %	93.5 %
η at 5% $P_{ac,r}$ ⁵⁾	82.7 / 83.3 / 80.2 %	85.6 / 85.8 / 83.3 %
η at 10% $P_{ac,r}$ ⁵⁾	88.5 / 89.3 / 85.0 %	90.0 / 90.3 / 87.5 %
η at 20% $P_{ac,r}$ ⁵⁾	91.5 / 92.3 / 89.6 %	92.2 / 93.0 / 90.8 %
η at 25% $P_{ac,r}$ ⁵⁾	92.1 / 92.9 / 90.6 %	92.4 / 93.5 / 91.6 %
η at 30% $P_{ac,r}$ ⁵⁾	92.4 / 93.3 / 91.1 %	92.5 / 93.6 / 92.1 %
η at 50% $P_{ac,r}$ ⁵⁾	92.7 / 93.9 / 91.5 %	92.9 / 94.3 / 92.3 %
η at 75% $P_{ac,r}$ ⁵⁾	92.9 / 94.1 / 92.6 %	92.5 / 94.1 / 92.9 %
η at 100% $P_{ac,r}$ ⁵⁾	92.5 / 94.3 / 92.9 %	92.0 / 93.7 / 92.7 %
MPP adaptation efficiency	> 99.9 %	

PROTECTIVE EQUIPMENT	
DC insulation measurement	Warning/shutdown (depending on country setup) at $R_{ISO} < 500 \text{ k}\Omega$
Overload behaviour	Operating point shift, power limitation
Reverse polarity protection	Integrated

¹⁾ 5+5 year warranty promotion valid for inverters up to 10kW installed and registered between January 1st and June 30th 2014. Please see www.fronius.com.au for more information.

²⁾ Additional setup required

³⁾ Not a standard feature

⁴⁾ Please refer to the information in the operating instructions regarding correct installation of the inverter.

⁵⁾ and at $U_{mpp \min} / U_{dc,r} / U_{mpp \max}$.

/ 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 around 3,000 employees worldwide, we shift the limits of what's possible - our more than 850 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



v02 2012 EN

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