



FRONIUS SYMO

Maximum flexibility for the applications of tomorrow



SnapInverter technology



Integrated data communication



Dynamic Peak Manager



Smart Grid Ready



SuperFlex Design



Zero feed-in

With power categories ranging from 3.0 to 20.0 kW, the transformerless Fronius Symo is the three-phase inverter for systems of every size. Owing to the SuperFlex Design, the Fronius Symo is the perfect answer to irregularly shaped or multi-oriented roofs.

The standard interface to the internet via WLAN or Ethernet and the ease of integration of third-party components make the Fronius Symo one of the most communicative inverters on the market. Furthermore, the meter interface permits dynamic feed-in management and a clear visualisation of the consumption overview.

TECHNICAL DATA FRONIUS SYMO (3.0-3-S, 3.7-3-S, 4.5-3-S, 3.0-3-M, 3.7-3-M, 4.5-3-M)

INPUT DATA	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
Number MPP trackers		1			2	
Max. input current ($I_{dc \max 1}$ / $I_{dc \max 2}^{2)}$		16.0 A			16.0 A / 16.0 A	
Max. array short circuit current (MPP ₁ / MPP ₂ ¹⁾)		24.0 A			24.0 A / 24.0 A	
DC input voltage range ($U_{dc \min}$ - $U_{dc \max}$)				150 - 1000 V		
Feed-in start voltage ($U_{dc \text{ start}}$)				200 V		
Usable MPP voltage range				150 - 800 V		
Number of DC connections		3			2+2	
Max. PV generator output ($P_{dc \max}$)	6.0 kW _{peak}	7.4 kW _{peak}	9.0 kW _{peak}	6.0 kW _{peak}	7.4 kW _{peak}	9.0 kW _{peak}

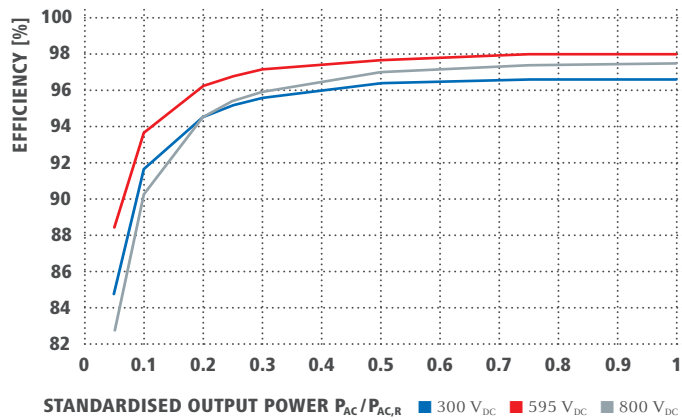
OUTPUT DATA	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
AC nominal output ($P_{ac,r}$)	3,000 W	3,700 W	4,500 W	3,000 W	3,700 W	4,500 W
Max. output power	3,000 VA	3,700 VA	4,500 VA	3,000 VA	3,700 VA	4,500 VA
AC output current ($I_{ac \text{ nom}}$)	4.3 A	5.3 A	6.5 A	4.3 A	5.3 A	6.5 A
Grid connection (voltage range)				3~NPE 400 V / 230 V or 3~NPE 380 V / 220 V (+20 % / -30 %)		
Frequency (Frequency range)				50 Hz / 60 Hz (45 - 65 Hz)		
Total harmonic distortion				< 3 %		
Power factor ($\cos \phi_{ac,r}$)		0.70 - 1 ind. / cap.			0.85 - 1 ind. / cap.	

GENERAL DATA	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
Dimensions (height x width x depth)			645 x 431 x 204 mm			
Weight		16.0 kg			19.9 kg	
Degree of protection				IP 65		
Protection class				1		
Overvoltage category (DC / AC) ²⁾				2 / 3		
Night time consumption				< 1 W		
Inverter design				Transformerless		
Cooling				Regulated air cooling		
Installation				Indoor and outdoor installation		
Ambient temperature range				-25 - +60 °C		
Permitted humidity				0 - 100 %		
Max. altitude				2,000 m / 3,400 m (unrestricted / restricted voltage range)		
DC connection technology	3x DC+ and 3x DC- screw terminals 2.5 - 16 mm ²			4x DC+ and 4x DC- screw terminals 2.5 - 16mm ² ³⁾		
AC connection technology	5-pole AC screw terminals 2.5 - 16 mm ²			5-pole AC screw terminals 2.5 - 16mm ² ³⁾		
Certificates and compliance with standards	ÖVE / ÖNORM E 8001-4-712, DIN V VDE 0126-1-1/A1, VDE AR N 4105, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 3100, AS 4777-2, AS 4777-3, CER 06-190, G83/2, UNE 206007-1, SI 4777 ¹⁾ , CEI 0-21 ¹⁾ , NRS 097					

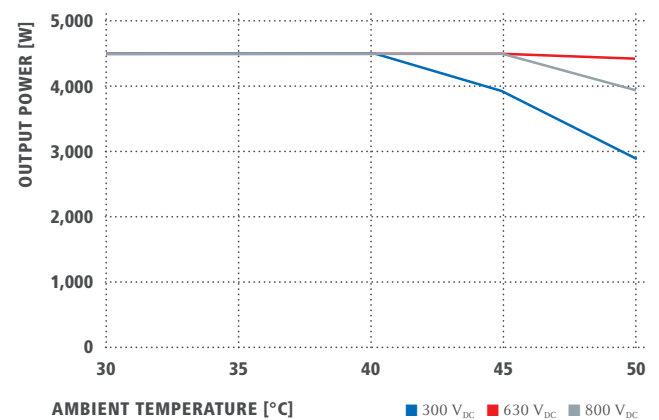
¹⁾ This applies to Fronius Symo 3.0-3-M, 3.7-3-M and 4.5-3-M. ²⁾ According to IEC 62109-1.

³⁾ 16 mm² without wire end ferrules. Further information regarding the availability of the inverters in your country can be found at www.fronius.com.

FRONIUS SYMO 4.5-3-S EFFICIENCY CURVE



FRONIUS SYMO 4.5-3-S TEMPERATURE DERATING



TECHNICAL DATA FRONIUS SYMO (3.0-3-S, 3.7-3-S, 4.5-3-S, 3.0-3-M, 3.7-3-M, 4.5-3-M)

EFFICIENCY	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
Max. efficiency				98.0 %		
European efficiency (η_{EU})	96.2 %	96.7 %	97.0 %	96.5 %	96.9 %	97.2 %
MPP adaptation efficiency	> 99.9 %					

PROTECTIVE DEVICES	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
DC insulation measurement				Yes		
Overload behaviour	Operating point shift, power limitation					
DC disconnect	Yes					
Reverse polarity protection	Yes					

INTERFACES	SYMO 3.0-3-S	SYMO 3.7-3-S	SYMO 4.5-3-S	SYMO 3.0-3-M	SYMO 3.7-3-M	SYMO 4.5-3-M
WLAN / Ethernet LAN	Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON)					
6 inputs and 4 digital in/out	Interface to ripple control receiver					
USB (A socket) ¹⁾	Datalogging, inverter update via USB flash drive					
2x RS422 (RJ45 socket) ¹⁾	Fronius Solar Net					
Signalling output ¹⁾	Energy management (potential-free relay output)					
Datalogger and Webserver	Included					
External input ¹⁾	S0-Meter Interface / Input for overvoltage protection					
RS485	Modbus RTU SunSpec or meter connection					

¹⁾ Also available in the light version.

TECHNICAL DATA FRONIUS SYMO (5.0-3-M, 6.0-3-M, 7.0-3-M, 8.2-3-M)

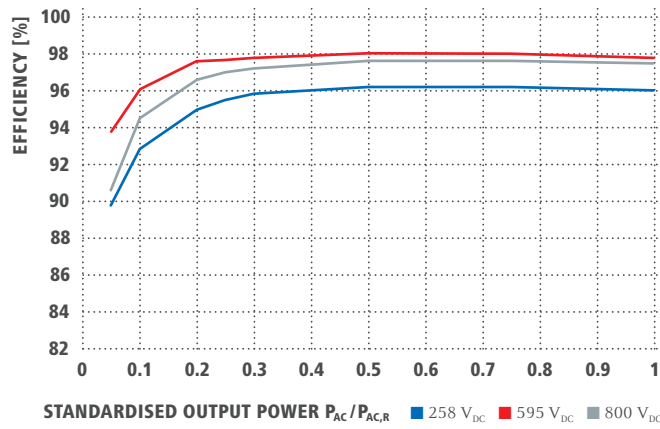
INPUT DATA	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
Number MPP trackers	2			
Max. input current ($I_{dc\ max\ 1} / I_{dc\ max\ 2}$)	16.0 A / 16.0 A			
Max. array short circuit current (MPP ₁ /MPP ₂)	24.0 A / 24.0 A			
DC input voltage range ($U_{dc\ min} - U_{dc\ max}$)	150 - 1000 V			
Feed-in start voltage ($U_{dc\ start}$)	200 V			
Usable MPP voltage range	150 - 800 V			
Number of DC connections	2+2			
Max. PV generator output ($P_{dc\ max}$)	10.0 kW _{peak}	12.0 kW _{peak}	14.0 kW _{peak}	16.4 kW _{peak}
OUTPUT DATA	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
AC nominal output ($P_{ac,r}$)	5,000 W	6,000 W	7,000 W	8,200 W
Max. output power	5,000 VA	6,000 VA	7,000 VA	8,200 VA
AC output current ($I_{ac,nom}$)	7.2 A	8.7 A	10.1 A	11.8 A
Grid connection (voltage range)	3-NPE 400 V / 230 V or 3-NPE 380 V / 220 V (+20 % / -30 %)			
Frequency (Frequency range)	50 Hz / 60 Hz (45 - 65 Hz)			
Total harmonic distortion	< 3 %			
Power factor ($\cos\ \phi_{ac,r}$)	0.85 - 1 ind. / cap.			
GENERAL DATA	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
Dimensions (height x width x depth)	645 x 431 x 204 mm			
Weight	19.9 kg			21.9 kg
Degree of protection	IP 65			
Protection class	1			
Overtoltage category (DC / AC) ¹⁾	2 / 3			
Night time consumption	< 1 W			
Inverter design	Transformerless			
Cooling	Regulated air cooling			
Installation	Indoor and outdoor installation			
Ambient temperature range	-25 - +60 °C			
Permitted humidity	0 - 100 %			
Max. altitude	2,000 m / 3,400 m (unrestricted / restricted voltage range)			
DC connection technology	4x DC+ and 4x DC- Screw terminals 2.5 - 16mm ² ²⁾			
AC connection technology	5-pole AC Screw terminals 2.5 - 16mm ² ²⁾			
Certificates and compliance with standards	ÖVE / ÖNORM E 8001-4-712, DIN V VDE 0126-1-1/A1, VDE AR N 4105, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 3100, AS 4777-2, AS 4777-3, CER 06-190, G83/2, UNE 206007-1, SI 4777, CEI 0-21, NRS 097			

¹⁾ According to IEC 62109-1.

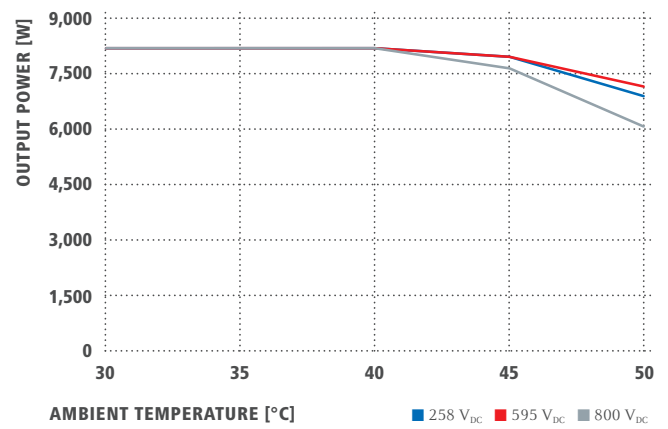
²⁾ 16 mm² without wire end ferrules.

Further information regarding the availability of the inverters in your country can be found at www.fronius.com.

FRONIUS SYMO 8.2-3-M EFFICIENCY CURVE



FRONIUS SYMO 8.2-3-M TEMPERATURE DERATING



TECHNICAL DATA FRONIUS SYMO (5.0-3-M, 6.0-3-M, 7.0-3-M, 8.2-3-M)

EFFICIENCY	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
Max. efficiency			98.0 %	
European efficiency (η_{EU})	97.3 %	97.5 %	97.6 %	97.7 %
MPP adaptation efficiency			> 99.9 %	

PROTECTIVE DEVICES	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
DC insulation measurement			Yes	
Overload behaviour		Operating point shift, power limitation		
DC disconnect			Yes	
Reverse polarity protection			Yes	

INTERFACES	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
WLAN / Ethernet LAN		Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON)		
6 inputs and 4 digital in/out		Interface to ripple control receiver		
USB (A socket) ¹⁾		Datalogging, inverter update via USB flash drive		
2x RS422 (RJ45 socket) ¹⁾		Fronius Solar Net		
Signalling output ¹⁾		Energy management (potential-free relay output)		
Datalogger and Webserver		Included		
External input ¹⁾		50-Meter Interface / Input for overvoltage protection		
RS485		Modbus RTU SunSpec or meter connection		

¹⁾ Also available in the light version.

TECHNICAL DATA FRONIUS SYMO (10.0-3-M, 12.5-3-M, 15.0-3-M, 17.5-3-M, 20.0-3-M)

INPUT DATA	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
Number MPP trackers	2				
Max. input current ($I_{dc \max 1} / I_{dc \max 2}$)	27.0 A / 16.5 A ¹⁾		33.0 A / 27.0 A		
Max. usable input current total ($I_{dc \max 1} + I_{dc \max 2}$)	43.5 A		51.0 A		
Max. array short circuit current (MPP ₁ /MPP ₂)	40.5 A / 24.8 A		49.5 A / 40.5 A		
DC input voltage range ($U_{dc \min} - U_{dc \max}$)	200 - 1000 V				
Feed-in start voltage ($U_{dc \text{ start}}$)	200 V				
Usable MPP voltage range	200 - 800 V				
Number of DC connections	3+3				
Max. PV generator output ($P_{dc \max}$)	15.0 kW _{peak}	18.8 kW _{peak}	22.5 kW _{peak}	26.3 kW _{peak}	30.0 kW _{peak}

OUTPUT DATA	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
AC nominal output ($P_{ac,r}$)	10,000 W	12,500 W	15,000 W	17,500 W	20,000 W
Max. output power	10,000 VA	12,500 VA	15,000 VA	17,500 VA	20,000 VA
AC output current ($I_{ac \text{ nom}}$)	14.4 A	18.0 A	21.7 A	25.3 A	28.9 A
Grid connection (voltage range)	3-NPE 400 V / 230 V or 3-NPE 380 V / 220 V (+20 % / -30 %)				
Frequency (Frequency range)	50 Hz / 60 Hz (45 - 65 Hz)				
Total harmonic distortion	1.8 %	2.0 %	1.5 %	1.5 %	1.3 %
Power factor ($\cos \phi_{ac,r}$)	0 - 1 ind. / cap.				

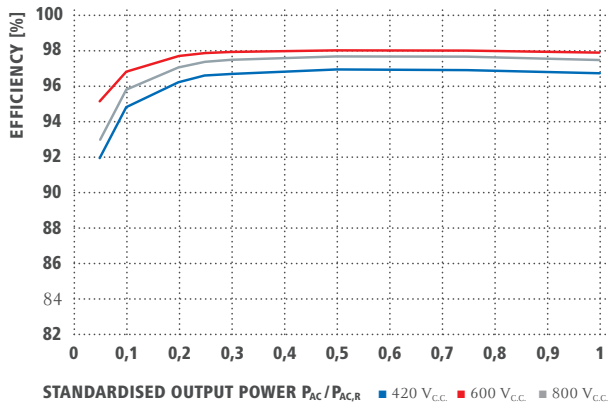
GENERAL DATA	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
Dimensions (height x width x depth)	725 x 510 x 225 mm				
Weight	34.8 kg		43.4 kg		
Degree of protection	IP 66				
Protection class	1				
Overvoltage category (DC / AC) ²⁾	2 / 3				
Night time consumption	< 1 W				
Inverter design	Transformerless				
Cooling	Regulated air cooling				
Installation	Indoor and outdoor installation				
Ambient temperature range	-40 - +60 °C				
Permitted humidity	0 - 100 %				
Max. altitude	2,000 m / 3,400 m (unrestricted / restricted voltage range)				
DC connection technology	6x DC+ and 6x DC- screw terminals 2.5 - 16 mm ²				
AC connection technology	5-pole AC screw terminals 2.5 - 16 mm ²				
Certificates and compliance with standards	ÖVE / ÖNORM E 8001-4-712, DIN V VDE 0126-1-1/A1, VDE AR N 4105, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 3100, AS 4777-2, AS 4777-3, CER 06-190, G83/2, UNE 206007-1, SI 4777, CEI 0-16, CEI 0-21, NRS 097				

¹⁾ 14.0 A for voltages < 420 V

²⁾ According to IEC 62109-1. DIN rail for optional type 1 + 2 or type 2 surge protection device available.

Further information regarding the availability of the inverters in your country can be found at www.fronius.com.

FRONIUS SYMO 20.0-3-M EFFICIENCY CURVE



FRONIUS SYMO 20.0-3-M TEMPERATURE DERATING



TECHNICAL DATA FRONIUS SYMO (10.0-3-M, 12.5-3-M, 15.0-3-M, 17.5-3-M, 20.0-3-M)

EFFICIENCY	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
Max. efficiency	98.0 %			98.1 %	
European efficiency (η _{EU})	97.4 %	97.6 %	97.8 %	97.8 %	97.9 %
MPP adaptation efficiency	> 99.9 %				

PROTECTIVE DEVICES	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
DC insulation measurement	Yes				
Overload behaviour	Operating point shift, power limitation				
DC disconnecter	Yes				
Reverse polarity protection	Yes				

INTERFACES	SYMO 10.0-3-M	SYMO 12.5-3-M	SYMO 15.0-3-M	SYMO 17.5-3-M	SYMO 20.0-3-M
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) ¹⁾	Datalogging, inverter update via USB flash drive				
2x RS422 (RJ45-socket) ¹⁾	Fronius Solar Net				
Signalling output ¹⁾	Energy management (potential-free relay output)				
Datalogger and Webserver	Included				
External input ¹⁾	50-Meter Interface / Input for overvoltage protection				
RS485	Modbus RTU SunSpec or meter connection				

¹⁾ Also available in the light version.

Further information and technical data can be found at www.fronius.com.

/ Perfect Welding / Solar Energy / Perfect Charging

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 4,760 employees worldwide and 1,253 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

Fronius India Private Limited
 GAT no 312, Nanekarwadi
 Chakan, Taluka - Khed District
 Pune 410501
 India
pv-sales-india@fronius.com
www.fronius.in

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-sales@fronius.com
www.fronius.com



WARRANTY CONDITIONS FOR FRONIUS INVERTERS AND THE FRONIUS DATAMANAGER

FOR THE FRONIUS WARRANTY AND FRONIUS WARRANTY PLUS

(Valid from: 25/02/2019)

Fronius International GmbH grants a warranty (as Fronius Warranty or Fronius Warranty Plus) for the warranty products defined here.

The warranty applies in addition to any legal or contractual claims and rights of the warranty holder and without prejudice to such claims or rights.

For more information about the Fronius Warranty please visit: www.fronius.com/solar/warranty.

Warranty products

This warranty applies exclusively to Fronius inverters and Fronius Datamanagers and only to the extent that these products are first installed in Australia and New Zealand and uniquely identified by their serial number. Fuses and other wearing parts are excluded from the warranty together with other components of the photovoltaic system as well as system add-ons, components for system monitoring and data communication, accessories and pre-production devices.

Warranty holder

Only the owner of the warranty product is entitled to make a claim under this warranty. No other person shall have any rights under this warranty. In the event of a change in ownership of the warranty product, the warranty is transferred.

Warranty claim

A warranty claim exists in the event that a warranty product develops a fault for which Fronius is responsible within the warranty period.

Warranty exclusions

The warranty does not apply if

- / the fault is the result of improper installation, operation, commissioning or transport; failure to comply with the installation instructions or operating instructions; insufficient ventilation; work performed on the warranty product by a third party not authorised by Fronius; failure to heed the safety rules, operating instructions and installation standards; force majeure (storm, lightning, overvoltage, fire, etc.);
- / the fault has been caused by another component in the warranty holder's photovoltaic system;
- / Fronius could not identify a fault upon examination of the product;
- / the damage does not impair the function of the Fronius inverter ("cosmetic flaws");
- / the full purchase price of the warranty product has still not been paid to Fronius.
- / a Fronius product is disassembled and rebuilt outside of the replacement process.

Warranty services

Fronius grants the Fronius Warranty Plus for a period of five years from dispatch from the Fronius factory. After these five years, Fronius grants different warranty services depending on whether the warranty holder selected the Fronius Warranty or Fronius Warranty Plus when registering the product at www.solarweb.com.

/ Fronius Warranty

- **Material warranty:** Fronius will not cover any removal and installation costs, labour costs, transport costs or costs for any other service. Fronius will provide the relevant replacement part or a replacement device. The warranty holder does not have to pay for the replacement part. In the event of replacement with an equivalent replacement device, Fronius will charge for the labour costs (time) of repairing the original device.
- **Service:** Fronius will not pay the labour costs for removing and installing the replacement part or replacement device, or costs for any other service.
- **Transport:** Fronius will not pay any shipping and transport costs incurred in relation to the Material and Service under this Fronius Warranty

/ Fronius Warranty Plus

- **Material warranty:** Fronius will provide a replacement part or an equivalent replacement device at no cost to the warranty holder.
- **Service:** Fronius will cover the labour costs for removing and installing the replacement part or replacement device, provided this work is undertaken by Fronius or a third party appointed by Fronius. Due to technological progress, the replacement part or replacement device provided may not be compatible with the system monitoring or other components installed on-site (e.g. Fronius DATCOM). Costs incurred as a result are not part of this warranty service and will not be covered by Fronius. Other costs, such as travel expenses, installation costs, customs duties, etc., will not be covered by Fronius. These services do not include modifications to the existing photovoltaic system of the warranty holder, his building wiring or other devices. The warranty holder must enable unrestricted access to the device(s) affected and provide all necessary equipment to comply with any applicable health & safety regulations free of charge.
- **Transport:** Fronius will cover any national transport costs incurred in relation to the Material and Service services, as necessary. Express delivery costs will not be covered.



Warranty period

The warranty period begins when the warranty product is dispatched by Fronius. The precise expiration date of the warranty can be checked by entering the serial number at www.solarweb.com. If the device is registered on www.solarweb.com within 30 months of dispatch from the Fronius factory, the warranty period begins from the installation date entered during the product registration process. This applies to all devices dispatched from 1 October 2018.

Depending on the warranty product, the warranty periods for the Fronius Warranty and Fronius Warranty Plus are different.

Free warranty extensions can be claimed by the warranty holder within 30 months of the warranty product being dispatched by Fronius. The warranty extension is claimed by registering the warranty product together with its serial number at www.solarweb.com and selecting the desired warranty model. The warranty extension applies exclusively to the warranty product unambiguously identified by its serial number.

Where parts or devices are replaced, the remaining warranty period is transferred to the replacement part or replacement device. This will be registered by Fronius automatically and the warranty holder will not receive a new certificate.

Overview of warranty product, warranty service and warranty period:

	String inverters (wall-mounted)	Central inverters (floor-mounted)	Datamanager	Ohmpilot
Warranty services from dispatch from Fronius factory	Fronius Warranty Plus	Fronius Warranty Plus	Fronius Warranty Plus	Fronius Warranty
Warranty services from dispatch from Fronius factory	5 years	5 years	5 years	2 years
Free warranty extension available if registered at www.solarweb.com within 30 months of dispatch from the Fronius factory	✓ Fronius Warranty: to 10 years	Free warranty extension not possible	Is automatically covered by the warranty period of the inverter in which the Datamanager has been installed.	Free warranty extension not possible
Warranty extension can be purchased from your installer within 30 months of dispatch from the Fronius factory	Fronius Warranty or Fronius Warranty Plus ✓ to 10, 15, 20 years	Fronius Warranty or Fronius Warranty Plus ✓ to 10, 15, 20 years	Is automatically covered by the warranty period of the inverter in which the Datamanager has been installed.	Warranty extension not possible

	Ohmpilot
Warranty services from dispatch from Fronius factory	Fronius Warranty
Warranty services from dispatch from Fronius factory	2 years

Making a claim under the warranty, return of parts and devices – to be observed without exception:

In the event of a warranty claim, the warranty holder must first notify his installer, who in turn will contact Fronius.

The procedure to follow in the event of a warranty claim must be agreed with Fronius, as this is the only way to ensure that the warranty services can be provided. Warranty claims must be accompanied with the purchase invoice, the serial number of the warranty product, the commissioning report (handover date, commissioning date, report from the power supply company) and, where necessary, proof of payment of the warranty extension fee.

The warranty holder must return parts or devices in the original packaging or equivalent. If the faulty part or device is not received by Fronius within 60 days, the warranty holder will be charged for the part/device at the current price for a new part/device. Faulty parts and devices returned to Fronius become the property of Fronius upon receipt; until they are received, Fronius retains ownership of the corresponding replacement parts and devices.

It is the responsibility of the warranty holder to substantiate the warranty claim and show that the conditions are met.

A claim for compensation cannot be made for energy that has not been fed into the grid or energy that has not been used for self-consumption, etc.



WARRANTY CONDITIONS OF THE FRONIUS SOLAR BATTERY

The purchaser (end consumer) of the Fronius Solar Battery receives a two-year Fronius Warranty Plus covering the entire Fronius Solar Battery from the date of dispatch from the Fronius factory. This can be extended by registering online at www.solarweb.com within 30 months of dispatch from the Fronius factory plus ensuring that an internet connection is established at least once a month between Fronius Solar.web and the Fronius Solar Battery. In this case the warranty holder receives a five-year Fronius Warranty Plus covering the Fronius Solar Battery plus a fifteen-year capacity guarantee covering the Murata "IJ1001M" battery module used, which includes repair or replacement in the scenarios listed below (see table).

Overview of warranty product, warranty service and warranty period:

	Fronius Solar Battery
Warranty services from dispatch from Fronius factory	Fronius Warranty Plus
Warranty services from dispatch from Fronius factory	2 years
Free warranty extension available if registered at www.solarweb.com within 30 months of dispatch from the Fronius factory	<p>✓ Fronius Warranty Plus: to 5 years for the Fronius Solar Battery plus with monthly internet connection between Fronius Solar.web and the Fronius Solar Battery, Fronius capacity guarantee: to 15 years for Murata battery module *)</p> <p>Fronius Warranty: to 7 years</p>
Warranty extension can be purchased from your installer within 30 months of dispatch from the Fronius factory **)	<p>Fronius Warranty or Fronius Warranty Plus</p> <p>✓ to 10 years</p>

**) Subject matter of the warranty in the event of a warranty extension for the Fronius Solar Battery is exclusively the Murata battery module. If a Murata battery module is retrofitted, the existing warranty covering the existing battery modules is transferred. A warranty extension does not cover the other system components of the Fronius Solar Battery.

In the event of a warranty claim, the value of the affected Fronius Solar Battery will be replaced in compliance with the conditions listed below. The current value of the Products affected by this warranty is generally replaced through the delivery of one or more replacement Products or through repair of the Products. The warranty starts with the delivery of the warranty product by Fronius and ends after 2 or 15 years ("Warranty Period"). The purchaser must keep the sales receipt for the Fronius Solar Battery or any individual Fronius battery modules purchased during the entire warranty period. The sales receipt(s) must be presented to Fronius upon request. The unexpired portion of the Warranty Period will apply to the replaced or repaired Products. Replacement or Repair of Products under the terms of the warranty does not provide the right to a renewal of the Warranty Period.

*) A claim under the warranty exists in the event that the current recoverable capacity of an individual battery module (IJ1001M) falls to 68% of the rated capacity on the data sheet within 15 years after purchase, or below 80% of the rated capacity on the data sheet within 10 years after purchase, as a result of degradation. The purchaser must report any imperfections or irregularities to a Fronius installer in writing within 14 days. The Fronius Repair Center will assess the current recoverable capacity of the individual battery modules. If the current recoverable capacity of a battery module is less than 80% or 68% of the capacity stated on the data sheet, the Fronius Repair Center will repair or replace the battery module(s) affected. The recoverable capacity of a battery module is the energy that can be drawn from the battery module, as measured at the connections of the battery module, under the conditions stipulated by the manufacturer. The battery components provided by way of replacement will have a current recoverable capacity of more than 80% or 68% of the capacity stated on the data sheet. Replaced battery modules and components become the property of Fronius.

Costs incurred for the assessment of the warranty claim (service use, capacity testing) are covered by this warranty only in the event of a confirmed warranty claim. Costs incurred for the implementation of the warranty claim (removal and installation costs, transport costs, etc.) are not covered by this warranty.

The purchaser of the Product cannot claim under this warranty if

- ✓ the Products have not been installed inside (inside a building) and an ambient temperature of 5 to 35 °C has not been maintained; (unless the extended ambient temperature guideline up to 45° applies: SE_CER Extended temperatur_range_Australia_Fronius_Solar_Battery_EN.pdf)
- ✓ an extended ambient temperature of 5 to 45 ° is possible, if the customer accepts and considers the restrictions shown in SE_CER_Extended_temperatur_range_Fronius_Solar_Battery_EN.pdf)
- ✓ the Products are exposed to direct sunlight, heat from heat-generating equipment or draught air such as in a garage;
- ✓ the Products are moved from their original installation location;
- ✓ the Products are not stored, installed, commissioned, charged, operated and maintained in accordance with the technical instructions as per the operating instructions;
- ✓ the Murata battery module was not kept within a specific temperature range (see table). The battery manufacturer can check the temperature of the Fronius Battery Module and is able to determine whether the required temperature has been maintained throughout the entire service life.



Time distribution according to cell temperature (in % and hours)								
Cell temperature (°C)		60≥T>50	50≥T>45	45≥T>40	40≥T>35	35≥T>30	30≥T>25	25≥T
10 years	Time T (hours, %)	0 h 0,0%	0 h 0,0%	0 h 0,0%	0 h 0,0%	0 h 0,0%	0 h 0,0%	≤ 87.600 h ≤ 100%
15 years	Time T (hours, %)	0 h 0,0%	≤ 1003 h ≤ 0,8%	≤ 1505 h ≤ 1,1%	≤ 2007 h ≤ 1,5%	≤ 2509 h ≤ 1,9 %	≤ 22.903 h ≤ 17,4%	≥ 101.470 h ≥ 77,2%

- ✓ the warranty claim is not submitted immediately and no later than 14 days after the occurrence of abnormalities that may lead to a warranty claim as defined above, in writing by e-mail to Fronius.

In addition, the purchaser must – following prior consultation – ensure that MURATA or Fronius representatives have access to the installed Products during usual business hours for the purpose of inspection in order to fulfil the warranty claim.

The warranty does not apply to Products that:

- ✓ have been modified or used with components not authorised by MURATA;
- ✓ have been physically damaged;
- ✓ have been improperly, negligently or inappropriately handled in any other manner;
- ✓ are damaged with regard to their functionality due to external influences for which MURATA is not responsible, such as a natural disaster, including floods and storms (force majeure);
- ✓ have exceeded 5475 charging cycles. Cycles can be checked either via the inverter or web server, whereby one cycle corresponds to a complete discharge and recharge;
- ✓ relate to a Fronius hybrid inverter as the warranty product and which has spent more than 15% of its operating hours being used in emergency power mode. This condition applies after the hybrid inverter has spent 1500 hours operating in emergency power mode.

Other legal information

In Australia, this warranty is given by, and all Australian warranty claims should be directed to:

Fronius Australia Pty Ltd, 90-92 Lambeck Drive, Tullamarine, VIC 3043, Telephone 03 8340 2900, Email pv-support-australia@fronius.com

The benefits to the consumer given by this manufacturer's warranty are in addition to other rights and remedies of the consumer that are stipulated by law, and which are not affected by this manufacturer's warranty.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The general delivery and payment terms and conditions located on our website (www.fronius.com.au) under "Terms and conditions" are in effect unless these warranty conditions allow more favorable provisions. Previously valid warranty conditions are replaced by these conditions.