Designed to rely on.

Product advantages

01 More safety included
02 Endless freedom
03 Optimal performance as standard

The Fronius Symo Advanced impresses not only with levels of performance and flexibility that have been proven a million times over, but also with its new equipment. The highlight in terms of safety is the integrated Fronius Arc Guard technology, which ensures the Fronius Symo Advanced exceeds the highest standards and is the future-proof and reliable choice for commercial photovoltaic systems of any size.
Fronius Symo Advanced. Designed to rely on.

Further developed with safety in mind:

the Fronius Symo Advanced opens the next chapter in the Fronius SnapINverter portfolio. Proven performance meets new safety technology, making the Fronius Symo Advanced more than ever a future-proof choice for installers and their customers.

01 More safety included

Detect, intervene, learn – the new Fronius Arc Guard technology follows this principle to protect against dangerous arcs. This algorithm developed by Fronius reliably detects arcs and switches the photovoltaic system off before a fire can occur. The Fronius Arc Guard is being continuously trained by the manufacturer to make the Arc Fault Circuit Interrupter more precise and to optimise system protection.

02 Endless freedom

Easily plan complex roofs thanks to the SuperFlex Design. The PV modules can be flexibly aligned and connected as the Fronius Symo Advanced is able to handle a wide range of input voltages as well as very high PV module currents.

03 Optimal performance as standard

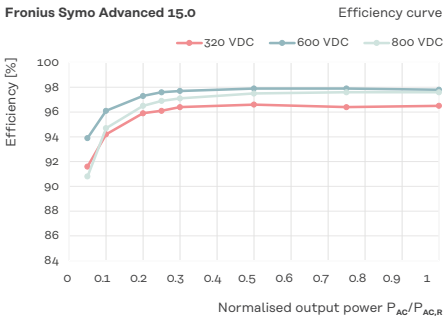
Maximum yield even when the PV modules are partially in the shade is possible thanks to the Dynamic Peak Manager feature of the Fronius Symo Advanced. The intelligent software-based shade management tool is installed as standard and requires no additional components.

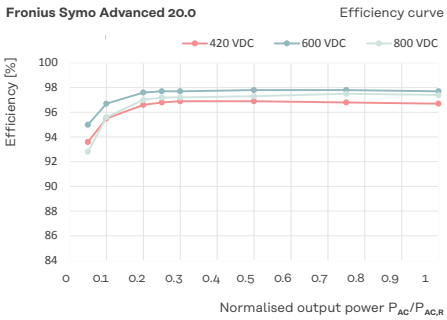
Fronius Symo Advanced

Impressive power data

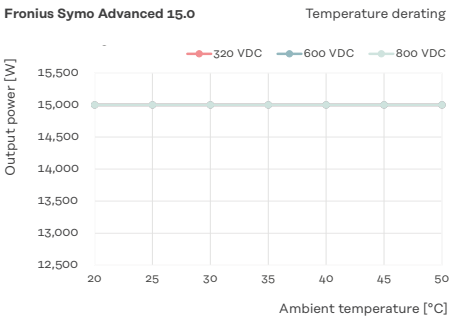
The Fronius Symo Advanced impresses with flexible system design and the highest safety standards.

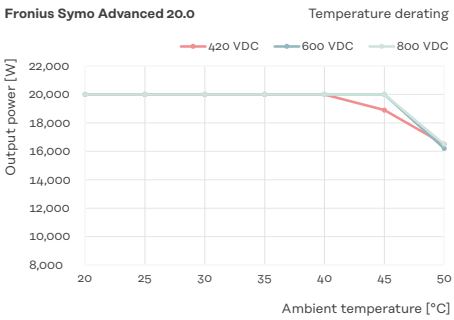
Efficiency





Power derating





Technical data
10.0 / 12.5 / 15.0 kW

			Symo Advanced					
			10.0-3-M		12.5-3-M		15.0-3-M	
Input data	Number of MPP trackers		2		2		2	
			MPPT1	MPPT2	MPPT1	MPPT2	MPPT1	MPPT2
	Max. input current ($I_{dc\ max}$)	A	27.0	16.5[1]	27.0	16.5[1]	33.0	27.0
	Max. usable input current ($I_{dc\ max\ MPPT\ 1+2}$)	A	43.5		43.5		51.0	
			MPPT1	MPPT2	MPPT1	MPPT2	MPPT1	MPPT2
	Max. array short circuit current MPPT1/MPPT2 ($I_{sc\ pv}$)[2]	A	55.7	34	55.7	34	68	55.7
	DC input voltage range ($U_{dc\ min}$ - $U_{dc\ max}$)	V	200 - 1000		200 - 1000		200 - 1000	
	Feed-in start-up input voltage ($U_{dc\ start}$)	V	200		200		200	
	Usable MPP voltage range	V	200 - 800		200 - 800		200 - 800	
	MPP Voltage range (at rated power) ($U_{mpp\ min}$ - $U_{mpp\ max}$)	V	270 - 800		320 - 800		320 - 800	
			MPPT1	MPPT2	MPPT1	MPPT2	MPPT1	MPPT2
	Number of DC connections		3	3	3	3	3	3
	Max. PV generator output ($I_{dc\ max}$)	kWp	15,000		18,800		22,500	
Output data	AC nominal output ($P_{ac,r}$)	W	10,000		12,500		15,000	
	AC nominal output ($P_{ac,r}$)	VA	10,000		12,500		15,000	
			380 VAC	400 VAC	380 VAC	400 VAC	380 VAC	400 VAC
	AC output current ($I_{ac\ nom}$)	A	15.2	14.4	18.9	18	22.7	21.7
	Grid connection (voltage range)		3-NPE 400 V / 230 V or 3~NPE 380 V / 220 V (+20 % / -30 %)					
	Frequency (frequency range)	Hz	50 / 60 (45 - 65)		50 / 60 (45 - 65)		50 / 60 (45 - 65)	
	Total harmonic distortion	%	< 1.75		< 2.0		< 1.5	
	Power factor ($\cos \varphi_{ac,r}$)		0–1 ind. / cap.					
General data	Dimensions (height x width x depth)	mm	725 x 510 x 225					
	Weight (inverter/with packaging)	kg	35.4 / 38.4		35.4 / 38.4		41.96 / 44.96	
	Protection class		IP 66		IP 66		IP 66	
	Safety class		1		1		1	
			DC	AC	DC	AC	DC	AC
	Overvoltage category (DC/AC)[3]		2	3	2	3	2	3
	Night-time consumption	W	<1		<1		<1	
	Inverter concept		Transformerless					
	Cooling		Active Cooling Technology					
	Installation		Indoor and outdoor installation					
	Ambient temperature range	°C	-25 - +60		-25 - +60		-25 - +60	
	Permissible humidity	%	0 - 100		0 - 100		0 - 100	
			unrestricted / restricted voltage range					
	Max. altitude	m	2,000/3,400		2,000/3,400		2,000/3,400	
	DC connection technology	mm²	6x DC+ and 6x DC screw terminals 2.5 - 16 mm²					
	AC connection technology	mm²	5-pin AC screw terminals 2.5 - 16mm2					
	Certificates and compliance with standards		IEC 62109-1/-2, IEC 62116, IEC 61727, VDE 0126-1-1/A1, VDE AR-N 4105, G98/1, G99/1, AS/NZS 4777.2, UNE 206007-1, CEI 0-21, CEI 0-16, NRS 097-2-1, TOR Erzeuger Typ A, VDE AR-N 4110, EN 50549-1/-2, IEC 61683, IEC60068					
	Country of manufacture		Austria					

[1] *14.0 A at voltages < 420 V*
[2] *Isc pv = Isc max. ≥ Isc (STC) x 1.25 according to e.g. IEC 60364-7-712, NEC 2020, AS/NZS 5033:2021.*
[3] *In line with IEC 62109-1. DIN rail for optional surge protective device type 1 + 2 or type 2 present.*
For further information on the availability of the inverters in your country, please visit www.fronius.com.

			Symo Advanced		
			10.0-3-M	12.5-3-M	15.0-3-M
Efficiency	Maximum efficiency	%	97.8	97.8	97.9
	European efficiency (ηEU)	%	97.1	97.4	97.6
	MPP adjustment efficiency	%	> 99.9	> 99.9	> 99.9

Protection devices	Arc Fault Circuit Interrupter - AFCI (Fronius Arc Guard)		Integrated
	DC isolation measurement		Integrated
	Overload performance		Operating point adjustment, power limitation
	DC disconnector		Integrated
	Reverse polarity protection		Integrated
	RCMU		Integrated

Interfaces	Wireless / 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 (type A socket)[4]		Data logging, inverter update via USB flash drive
	2x RS422 (RJ45 socket)[4]		Fronius Solar Net
	Message output[4]		Energy management (potential-free relay output)
	Datalogger and web server		Integrated
	External input [4]		S0-Meter Interface / Input for overvoltage protection
	RS485		Modbus RTU SunSpec or meter connection

[4] *Also available in a light version.*

Technical data
17.5 / 20.0 kW

			Symo Advanced			
			17.5-3-M		20.0-3-M	
Input data	Number of MPP trackers		2		2	
			MPPT1	MPPT2	MPPT1	MPPT2
	Max. input current ($I_{dc\ max}$)	A	33.0	27.0	33.0	27.0
	Max. usable input current ($I_{dc\ max\ MPPT\ 1+2}$)	A	51.0		51.0	
			MPPT1	MPPT2	MPPT1	MPPT2
	Max. array short circuit current MPPT1/MPPT2 ($I_{sc\ pv}$)[2]	A	68	55.7	68	55.7
	DC input voltage range ($U_{dc\ min}$ - $U_{dc\ max}$)	V	200 - 1000		200 - 1000	
	Feed-in start-up input voltage ($U_{dc\ start}$)	V	200		200	
	Usable MPP voltage range	V	200 - 800		200 - 800	
	MPP Voltage range (at rated power) ($U_{mpp\ min}$ - $U_{mpp\ max}$)	V	370 - 800		420 - 800	
			MPPT1	MPPT2	MPPT1	MPPT2
	Number of DC connections		3	3	3	3
	Max. PV generator output ($I_{dc\ max}$)	kWp	26,300		30,000	
Output data	AC nominal output ($P_{ac,r}$)	W	17,500		20,000	
	AC nominal output ($P_{ac,r}$)	VA	17,500		20,000	
			380 VAC	400 VAC	380 VAC	400 VAC
	AC output current ($I_{ac\ nom}$)	A	26.5	25.3	30.3	28.9
	Grid connection (voltage range)		3-NPE 400 V / 230 V or 3~NPE 380 V / 220 V (+20 % / -30 %)			
	Frequency (frequency range)	Hz	50 / 60 (45 - 65)		50 / 60 (45 - 65)	
	Total harmonic distortion	%	< 1.5		< 1.25	
	Power factor ($\cos \varphi_{ac,r}$)		0–1 ind. / cap.			
General data	Dimensions (height x width x depth)	mm	725 x 510 x 225			
	Weight (inverter/with packaging)	kg	41.96 / 44.96		41.96 / 44.96	
	Protection class		IP 66		IP 66	
	Safety class		1		1	
			DC	AC	DC	AC
	Overvoltage category (DC/AC)[3]		2	3	2	3
	Night-time consumption	W	<1		<1	
	Inverter concept		Transformerless			
	Cooling		Active Cooling Technology			
	Installation		Indoor and outdoor installation			
	Ambient temperature range	°C	-25 - +60		-25 - +60	
	Permissible humidity	%	0 - 100		0 - 100	
			unrestricted / restricted voltage range			
	Max. altitude	m	2,000/3,400		2,000/3,400	
	DC connection technology	mm²	6x DC+ and 6x DC screw terminals 2.5 - 16 mm²			
	AC connection technology	mm²	5-pin AC screw terminals 2.5 - 16mm2			
	Certificates and compliance with standards		IEC 62109-1/-2, IEC 62116, IEC 61727, VDE 0126-1-1/A1, VDE AR-N 4105, G98/1, G99/1, AS/NZS 4777.2, UNE 206007-1, CEI 0-21, CEI 0-16, NRS 097-2-1, TOR Erzeuger Typ A, VDE AR-N 4110, EN 50549-1/-2, IEC 61683, IEC60068			
	Country of manufacture		Austria			

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			Symo Advanced	
			17.5-3-M	20.0-3-M
Efficiency	Maximum efficiency	%	97.9	97.9
	European efficiency (ηEU)	%	97.6	97.6
	MPP adjustment efficiency	%	> 99.9	> 99.9
Protection devices	Arc Fault Circuit Interrupter - AFCI (Fronius Arc Guard)		Integrated	
	DC isolation measurement		Integrated	
	Overload performance		Operating point adjustment, power limitation	
	DC disconnector		Integrated	
	Reverse polarity protection		Integrated	
	RCMU		Integrated	
Interfaces	Wireless / 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 (type A socket)[4]		Data logging, inverter update via USB flash drive	
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	Message output[4]		Energy management (potential-free relay output)	
	Datalogger and web server		Integrated	
	External input[4]		S0-Meter Interface / Input for overvoltage protection	
	RS485		Modbus RTU SunSpec or meter connection	

[4] *Also available in a light version.*

Further information: www.fronius.com/commercial-inverters

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

Fronius Canada Ltd.
2875 Argentia Road, Units 4, 5 & 6
Mississauga, ON L5N 8G6
Canada
pv-sales-canada@fronius.com
www.fronius.ca

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

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