

## 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 <sub>1</sub> /MPP <sub>2</sub> )	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 <sub>peak</sub>	12.0 kW <sub>peak</sub>	14.0 kW <sub>peak</sub>	16.4 kW <sub>peak</sub>

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.			

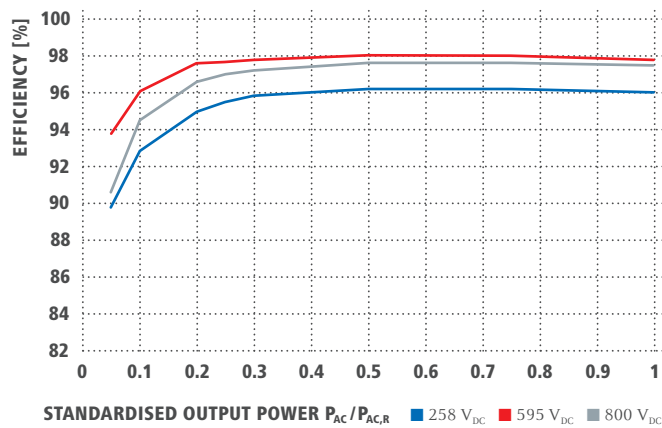
GENERAL DATA	SYMO 5.0-3-M	SYMO 6.0-3-M	SYMO 7.0-3-M	SYMO 8.2-3-M
Dimensions (height x width x depth)	645 x 431 x 204 mm			
Weight	19.9 kg			21.9 kg
Degree of protection	IP 65			
Protection class	1			
Overvoltage category (DC / AC) <sup>1)</sup>	2 / 3			
Night time consumption	< 1 W			
Inverter design	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 <sup>2</sup> <sup>2)</sup>			
AC connection technology	5-pole AC Screw terminals 2.5 - 16mm <sup>2</sup> <sup>2)</sup>			
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, S1 4777, CEI 0-21, NRS 097			

<sup>1)</sup> According to IEC 62109-1.

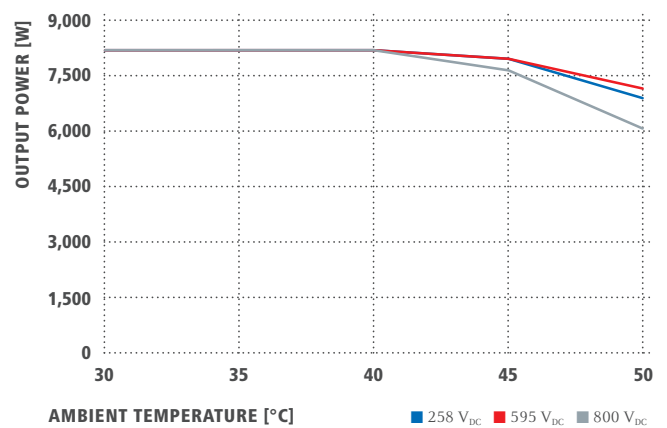
<sup>2)</sup> 16 mm<sup>2</sup> without wire end ferrules.

Further information regarding the availability of the inverters in your country can be found at [www.fronius.com](http://www.fronius.com).

## FRONIUS SYMO 8.2-3-M EFFICIENCY CURVE



## FRONIUS SYMO 8.2-3-M TEMPERATURE DERATING



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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 ( $\eta_{EU}$ )	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 disconnecter	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) <sup>1)</sup>	Datalogging, inverter update via USB flash drive			
2x RS422 (RJ45 socket) <sup>1)</sup>	Fronius Solar Net			
Signalling output <sup>1)</sup>	Energy management (potential-free relay output)			
Datalogger and Webserver	Included			
External input <sup>1)</sup>	S0-Meter Interface / Input for overvoltage protection			
RS485	Modbus RTU SunSpec or meter connection			

<sup>1)</sup> Also available in the light version.