

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 ($P_{dc\ max}$)	W _{peak}	15,000		18,800		22,500		
Output data	AC nominal output ($P_{ac,r}$)	W	10,000		12,500		15,000	
	Max. output power / rated apparent power	VA	10,000		12,500		15,000	
			380 V _{AC}	400 V _{AC}	380 V _{AC}	400 V _{AC}	380 V _{AC}	400 V _{AC}
	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 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 above sea level	m	2,000/3,400		2,000/3,400		2,000/3,400	
	DC connection technology	mm ²	6x DC+ and 6x DC screw terminals 2.5 - 16 mm ²					
	AC connection technology	mm ²	5-pin AC screw terminals 2.5 - 16mm ²					
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, IEC 63027:2023						
Country of manufacture		Austria						

¹ 14.0 A at voltages < 420 V

² $I_{sc\ pv} = I_{sc\ max} \geq I_{sc\ (STC)} \times 1.25$ 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 protection 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	Max. efficiency	%	97.8	97.8	97.9
	Europ. efficiency (η_{EU})	%	97.1	97.4	97.6
	MPP adaptation 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 shift, power limiter		
	DC disconnect		Integrated		
	Reverse polarity protection		Integrated		
	RCMU		Integrated		
Interfaces	WLAN / Ethernet LAN		Fronius Solarweb, Modbus TCP SunSpec, Fronius Solar API (JSON)		
	6 inputs and 4 digital inputs/outputs		Connection to ripple control receiver		
	USB (type A socket) ⁴		Datalogging, inverter updating using a USB thumb 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		So-Meter Interface / Input for overvoltage protection		
	RS485		Modbus RTU SunSpec or meter connection		

⁴ Also available in a light version.