

Smartflower inverter data

INVERTER DATA

Inverter	Fronius Primo 3.8-1 (UL)	Fronius Primo 3.0-1 (CE)	Fronius Symo 3.0-3-S (CE)
Nominal Frequency	60 Hz	50 Hz	50 Hz
DC Input Data			
Max. DC voltage	600 V	1000 V	1000 V
MPPT voltage range	200-480 V	200-800 V	150-800 V
Max. DC work current	18 A	12 A	16 A
Number of inputs/Mpp trackers	2	2	1
AC Output Data			
Rated AC power	3800 VA	3000 VA	3000 VA
Max. AC current	15.8 A (240 V) 18.3 A (208 V)	13.7 A	4.3 A
Power factor (cos ϕ)	0.85-1 ind. / cap.	0.85-1 ind. / cap.	0.85-1 ind. / cap.
AC connection	On-grid (240 V split-phase, L1, L2, N, PE), Single Phase	On-grid (230V L, N, PE), Single Phase	On-grid (230V L1, L2, L3, N, PE), 3 Phase (L1, L2, L3, N, PE)
Grid Frequency Range	50-66 Hz (240 V)	45-65 Hz	45-65 Hz
Feed-in phases			
Max. efficiency	96.7%	98.0%	98.0%
CEC efficiency	95.0%	96.1% (nEU)	96.5% (nEU)
Protective Devices			
DC reverse polarity protection	Yes	Yes	Yes
DC Insulation measurement	N/A	Yes	Yes
Anti-Islanding	Internal, in accordance with UL 1741 2016 09, IEEE 1547 2003 and NEC 2017	N/A	N/A
Over Temperature Protection	Output power derating/Active cooling	N/A	N/A
Overload behavior		Operating point shift. Power Limitation.	Operating point shift. Power Limitation.
AFCI	Yes	N/A	N/A
Rapid shutdown compliant	Per Sect. 690.12 of 2014 (of NEC 2017 prior to Jan 2019)	N/A	N/A
Ground Fault Protection with Isolation Monitor Interrupter	Yes	N/A	N/A
DC Disconnect	Yes	Yes	Yes
Normative references			
Certificate and compliance with standards	UL 1741-2010 Second Edition (incl. UL1741 Supplement SA 2016-09 for California Rule 21 and Hawaiian Electric Code Rule 14H), UL1998 (for functions: AFCI, RCMU and isolation monitoring), IEEE 1547-2003, IEEE 1547.1-2003, ANSI/IEEE C62.41, FCC Part 15 A & B, NEC 2017 Article 690, C22. 2 No. 107.1-16, UL1699B Issue 2 -2013, CSA TIL M-07 Issue 1 – 2013	DIN V VDE 0126-1-1/A1, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 4777-2, AS 4777-3, G83/2, G59/3, CEI 0-21, VDE AR N 4105 2)	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
General Data			
Operating temperature range	-40° F to 131° F -40° C to 55° C	-40° F to 131° F -40° C to 55° C	-13° F to 140° F -25° C to 60° C
Relative humidity	0 – 100%	0 – 100%	0 – 100%
Degree of protection	NEMA 4X	IP 65	IP 65
Topology	Transformerless	Transformerless	Transformerless
Inverter Warranty	10 years	5-7 years	5-7 years