



Battery Specifications Model	ONU E DAT 40 OD
	SMILE-BAT-13.3P
Battery Type	LFP (LiFePO4)
System Weight	120 kg
Dimension (W x D x H)	610 x 236 x 812 mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty, ≥ 8000 Cycle Life
Energy Capacity	13.34 kWh
Usable Capacity	13.34 kWh
Depth of Discharge (DoD)	100%
Nominal Voltage	48 V
Operating Voltage Range	45 ~ 54 V
Internal Resistance	≤ 20 mΩ
Operation	
Max. Charging Current	100 A (0.35C)
Max. Discharging Current	100 A (0.35C)
Operating Temperature Range	-10 °C ~ 50 °C*
Humidity	15% ~ 85%
BMS	
Modules Connection	1∼6 in parallel (with expansion pack)
Power Consumption	<1 W (Work), <10 mW (Sleep)
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Communication	CAN and RS-485 compatible
Certificate	
Transportation	UN38.3
Safety	IEC 62619 (Cell), IEC 62619 (Pack)

PU String Found Data   Max. OC Input Power for   The maximum DC lineat p		
Max. DC Injust Power [W]         6680           The maximum DC injust power for STC [W] (Small-scale Technology Certificates)         6600           Certificates)         6600           Max. DC Avillage [V]         125-550           Stating Notage [W]         125-550           Stating Notage [W]         125-550           Stating Notage [W]         125           No. of DC Connectors         2           No. of MPPTs         2           DC Connector         MC4           Battery Input Data         10           Nominal Voltage [V]         51.2           Max. Charging Voltage [V]         57.6           Max. Charging Voltage [V]         57.6           Max. Charging Voltage [V]         51.2           Max. Charging Voltage [V]         50.0           Max. AC Power [VA]         50.0           <	Inverter	SMILE5 INV
The maximum DC input power for STC (VI) (Small-seal selementory)   6000	PV String Input Data	
STC_PMIS_Results on Enchances   6600	Max. DC Input Power [W]	6660
Max. DC Vallage  V    125-500	STC [W] (Small-scale Technology	6600
MPPT Voltage Rampe (V) 125-590 Starting Voltage (P) 125 Max. DC Current (A) 127 No. of ICC Commentors 2 No. of ICC Commentors 3 CC Connector MC4 DC Commentors MC4 DC Current (B) 125 DC Connector MC4 DC Current (B) 157 Battery Input Data Nominal Voltage (V) 1512 Max. Charging Voltage (V) 157 Max. Charging Voltage (V) 157 Max. Charging Voltage (V) 157 Max. Charging Voltage (V) 158 Max. Charging Voltage (V) 159 Max. Charging Current (A) 100 Max. December (VA) 100 Max. AC Power (VA) 100 Max. AC Power (VA) 100 Max. AC Power (VA) 100 Max. AC Current (B) 100 Max. AC Current (B) 100 Max. AC Power (VA) 100 Max. AC Max. Max. Max. Max. Max. Max. Max. Max.	Max. DC Voltage [V]	580
Starting Visitage [V]	MPPT Voltage Range [V]	
Max. DC Current [A] No. of IDC Connectors		
No. of IDC Connectors   2   2   2   2   2   2   2   2   2		
No. of MPTs	No. of DC Connectors	
DC Cannecler	No. of MPPTs	
Battery Input Data	DC Connector	
Manic Notage   V	Battery Input Data	
Max. Charging Current [A]         100           Max. Charging Current [A]         100           Max. Discharging Current [A]         100           Mox. Discharging Current [A]         100           Mox. AC Power [Va]         5000           Max. AC Power [VA]         5000           Max. AC Current [A]         21.7           Nominal Output Voltage [V]         230           Nominal Output Voltage [V]         306           ThD         43%           Power Factor         -1(Adjustable from 0.8 leading to 0.8 legging)           AC Output Data (Buck-Up)         4600           Power [VA]         4600           Nominal AC Power [VA]         5200. 2 sec           Nominal Output Voltage [V]         230           Nominal Output Voltage [V]         97.60%           Europe Efficiency         97.60%           Europe Efficiency         99.90%           Protection         Integrated           Anti-slanding Protection         Integrated           AC Over Current Protection         Integrated           General Data         Integrat		51.2
Max. Charging Current [A]         100           Max. Disharging Current [A]         100           Acc Output Data (On Grid)         100           Nominal AC Power [VA]         5000           Max. AC Current [A]         21.7           Nominal Output Voltage [V]         230           Nominal Output Prequency [Hz]         5060           THDI         3%           Power Factor         -1 (Adjustable from 0.8 leading to 0.8 legging)           AC Output Data (Buck-Up)         4600           Nominal Output Voltage [V]         230           Nominal Output Data (Buck-Up)         4600           Nominal Output Voltage [V]         230           Nominal Output Voltage [V]         90.0%           Europe Efficiency         97.60%           Max. Efficiency         97.60%           Europe Efficiency         99.90%           Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Grover Current Protec		
Max. Discharging Current [A]         100           AC Output Data (On Grid)         50000           Max. AC Power [VA]         5000           Max. AC Current [A]         21.7           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50060           ThDI         3%           Power Factor         -1 (Adjustable from 0.8 leading to 0.8 leaging)           AC Output Data (Buck-Up)         46000           Peak AC Power [VA]         4600           Peak AC Power [VA]         50060           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50060           Efficiency         900%           Peak AC Power [VA]         50060           Mominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         5060           Efficiency         97.00%           MPET Adaptation Efficiency         99.0%           Protection         Integrated           AC Over Current Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         10-50           General Data         10-50           Weight [Kg]         17      <		
AC Output Data (On Grid)		
Nominal AC Power [VA]         5000           Max. AC Power [VA]         5000           Max. AC Correct [A]         2.17           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           THDI         -4%           Power Factor         -1(Adjustable from 0.8 leaging)           AC Output Data (Buck-Up)         8           Nominal AC Power [VA]         4600           Peak AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Max. Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.00%           Protection         Integrated           AC Over Current Protection         10.60           Insulation Monitoring         10.60 × 236.6           Weight [kg]         17           Topic Construct Protection <td< td=""><td></td><td></td></td<>		
Max. AC Power [VA]         5000           Max. AC Current [A]         21.7           Nominal Output Frequency [Hz]         50/80           Nominal Output Frequency [Hz]         50/80           THDI         <3%		5000
Max. AC Current [A]         21.7           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           THDi         -3%           Power Factor         -1(Adjustable from 0.8 leading to 0.8 lagging)           AC Output Data (Buck-Up)         Bueding to 0.8 lagging)           Nominal AC Power [VA]         4600           Peak AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Burst Efficiency         97.00%           MPCT Adaptation Efficiency         99.90%           Protection         Integrated           AC Over Current Monitoring Unit         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Weight [Kg]         17           Ambiest Temperature Range [C]         10-50           Relative Humidity         9.95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         413           Cooling         Nature Convection           Noise Emission [dB] <td></td> <td></td>		
Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         5060           THDI         <3%	<u> </u>	
Nominal Output Frequency [Hz]         50/60           THDI         43%           Power Factor         *1(Adjustable from 0.8 leading to 0.8 lagging)           AC Output Data (Buck-Up)         4600           Nominal AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Burge Efficiency         97.00%           Max. Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection         Integrated           Anti-islanding Protection         Integrated           Anti-islanding Protection         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [*C]         -10-50           Relative Humidity         0-95%           Protection Degree          P65           Topology         High Frequency Isolation           Standby Losses [W]         413           Cooling         Nature Convection           Noise Emission [d]         425           Monitoring         RS485, CAN;		
THDI         43%           Power Factor         -1(Adjustable from 0.8 leading to 0.8 lagging)           AC Output Data (Buck-Up)           Nominal AC Power [VA]         4600           Peak AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [t2]         50/60           Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection         Integrated           ARDI-Islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         1ntegrated           General Data         10           Using It [kg]         17           Ambient Temperature Range [*C]         10-50           Relative Humidity         0-95%           Protection Degree         IPB5           Topology         High Frequency Isolation           Standy Losses [W]         413           Cooling         Nature Convection           Noise Emission [dB]         425           Monitoring         R\$48; CAN; Wi-F           Standard Warranty [Years]         5           Certificate		
Power Factor         "I(Adjustable from 0.8 leading to 0.8 lagging)           AC Output Data (Buck-Up)           Nominal AC Power [VA]         4600           Peak AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Max. Efficiency         97.00%           Meyer Adaptation Efficiency         99.90%           Protection         Integrated           Residual Current Monitoring Unit         Integrated           AC Over Current Protection         Integrated           AC Over Current Protection         Integrated           General Data         Integrated           Weight [kg]         17           Ambient Temperature Range [*C]         10~50           Relative Humidity         0.95%           Protection Degree         1P65           Topology         High Frequency Isolation           Standby Losses [W]         413           Cooling         Nature Convection           Noise Emission [dB]         425           Standard Warranty [Years]         5           Certificates & Standards         VDE-AR-N 4105, VDE 0126-11, AS 4777.2/3, CEI 0-21, GS9/3, RD 1699, NRS 097-2-1	THDi	
Nominal AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency           Max. Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         17           Ambient Temperature Range [°C]         17           Ambient Temperature Range [°C]         10-50           Relative Humidity         0.95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Power Factor	
Nominal AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency           Max. Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         17           Ambient Temperature Range [°C]         17           Ambient Temperature Range [°C]         10-50           Relative Humidity         0.95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	AC Output Data (Buck-Up)	
Peak AC Power [VA]         5200, 2 sec           Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Burce Efficiency         97.00%           Max. Efficiency         99.90%           Protection         99.90%           Protection         Integrated           Anti-islanding Protection         Integrated           Anti-islanding Protection         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         Integrated           Separal Data         17           Dimensions (WxHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10-50           Relative Humidity         9-95%           Protection Degree         [P65           Topology         High Frequency Isolation           Standby Losses [W]         <13		4600
Nominal Output Voltage [V]         230           Nominal Output Frequency [Hz]         50/60           Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data         17           Weight [kg]         17           Ambient Temperature Range [°C]         -10-50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13		
Nominal Output Frequency [Hz]         50/80           Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection         Protection           Residual Current Monitoring Unit         Integrated           Anti-Islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Dimensions (WXHXD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         +10~50           Relative Hurnidity         0.95%           Trotection Degree         1P65           Topology         High Frequency Isolation           Standby Losses [W]         <13           Cooling         Nature Convection           Noise Emission [dB]         25           Monitoring         RS485; CAN; Wi-Fi           Standard Warranty [Years]         5           Certificates & Standards         Cordinates         EN 61000-6-1/12/3/4           EMC         EN 61000-6-1/12/3/4	Nominal Output Voltage [V]	
Max. Efficiency         97.60%           Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection         Residual Current Monitoring Unit         Integrated           Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Businessions (WHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         10~50           Relative Humidity         0.95%           Protection Degree         1P65           Standby Losses [W]         <13	Nominal Output Frequency [Hz]	50/60
Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           Anti-slanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data         Weight [kg]           Dimensions (WxHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         1-0-50           Relative Humidity         0-95%           Protection Degree         [P65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Efficiency	
Europe Efficiency         97.00%           MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data         Weight [kg]           Uimensions (WxHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         10-50           Relative Humidity         0-95%           Protection Degree         [P65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Max. Efficiency	97.60%
MPPT Adaptation Efficiency         99.90%           Protection           Residual Current Monitoring Unit         Integrated           Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data         Uniquent of the protection of the pro	Europe Efficiency	
Protection           Residual Current Monitoring Unit         Integrated           Anti-slanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           Insulation Monitoring         Integrated           General Data         TO           Using Insulation Monitoring         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10~50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	MPPT Adaptation Efficiency	
Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data           Dimensions (WXHXD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10-50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Protection	
Anti-islanding Protection         Integrated           AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data           Dimensions (WXHXD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10-50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Residual Current Monitoring Unit	Integrated
AC Over Current Protection         Integrated           Insulation Monitoring         Integrated           General Data         Integrated           Dimensions (WxHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10-50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13           Cooling         Nature Convection           Noise Emission [dB]         <25           Monitoring         RS485; CAN; Wi-Fi           Standard Warranty [Years]         5           Certificates & Standards         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	Anti-islanding Protection	-
Insulation Monitoring         Integrated           General Data           Dimensions (WxHxD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10~50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13           Cooling         Nature Convection           Noise Emission [dB]         <25           Monitoring         RS485; CAN; Wi-Fi           Standard Warranty [Years]         5           Certificates & Standards         Certificates & Standards           Grid Regulation         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	AC Over Current Protection	-
General Data           Dimensions (WXHXD) [mm]         1604 x 610 x 236.6           Weight [kg]         17           Ambient Temperature Range [°C]         -10~50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Insulation Monitoring	-
Weight [kg]         17           Ambient Temperature Range [°C]         -10~50           Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	General Data	· ·
Ambient Temperature Range [°C]       -10~50         Relative Humidity       0-95%         Protection Degree       IP65         Topology       High Frequency Isolation         Standby Losses [W]       <13	Dimensions (WxHxD) [mm]	1604 x 610 x 236.6
Relative Humidity         0-95%           Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Weight [kg]	17
Protection Degree         IP65           Topology         High Frequency Isolation           Standby Losses [W]         <13	Ambient Temperature Range [°C]	-10~50
Topology         High Frequency Isolation           Standby Losses [W]         <13	Relative Humidity	0-95%
Standby Losses [W]         <13	Protection Degree	IP65
Standby Losses [W]         <13	Topology	High Frequency Isolation
Noise Emission [dB]         <25	Standby Losses [W]	<13
Monitoring         RS485; CAN; Wi-Fi           Standard Warranty [Years]         5           Certificates & Standards           Grid Regulation         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	Cooling	Nature Convection
Standard Warranty [Years]         5           Certificates & Standards           Grid Regulation         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	Noise Emission [dB]	<25
Certificates & Standards           Grid Regulation         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	Monitoring	RS485; CAN; Wi-Fi
Grid Regulation         VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1           EMC         EN 61000-6-1/2/3/4	Standard Warranty [Years]	5
EMC EN 61000-6-1/2/3/4	Certificates & Standards	
	Grid Regulation	VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/.3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1
Safety Regulation IEC 62109-18-2, IEC 62477-1, IEC 62040.1.1, IEC 62116	EMC	EN 61000-6-1/2/3/4
	Safety Regulation	IEC 62109-1&-2, IEC 62477-1, IEC 62040.1.1, IEC 62116

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