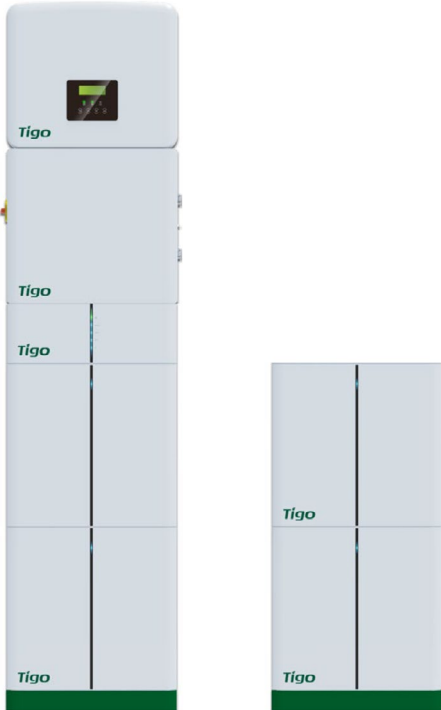


Energy Intelligence Residential Solution (EU)

A whole-home, scalable energy storage system (ESS) for European markets

The Tigo ESS includes the hybrid Energy Intelligence (EI) Inverter (up to 15 kW), EI Link connection box with automatic transfer switch, and EI Battery with up to 12 kWh storage for fast, flexible, and dependable solar installations.

- Single- and three-phase options
- Whole-home backup with 63 A max. input current supporting 150% oversized PV power
- Self-consumption, backup, and time-of-use energy management
- Rapid battery charge and discharge rates
- Quick installation and commissioning
- Integrates Tigo TS4 module level power electronics (MLPE)
- Comprehensive ESS management with the Tigo EI app



EI Inverter

	Single Phase				Three Phase		
	TSI-3K1D	TSI-3.7K1D ¹	TSI-5K1D	TSI-6K1D	TSI-6K3D	TSI-10K3D	TSI-15K3D
DC Input							
MPPTs	2				2		
Strings per MPPT	1				1	2 ²	
Max. PV power (PV1 + PV2)	4.5 kW	5.5 kW	7.5 kW	9 kW	10 kW	16.5 kW	18 kW
Max. PV voltage	600 V				1000 V		
Startup voltage	90 V				200 V		
MPPT operating voltage	70 – 550 V				180 – 950 V		
Max. current per MPPT (I_{MP}) ³	16 A				16 A	28 A/16 A	
Max. current per MPPT (I_{SC}) ³	20 A				20 A	35 A/20 A	
AC On Grid							
Max. input power	6.3 kVA	7.36 kVA	9.2 kVA		12 kVA	20 kVA	
Max. input current	60 A				63 A		
Max. output power	3.3 kVA	3.68 kVA	5.5 kVA ⁴	6.6 kVA	6.6 kVA	11 kVA	15 kVA
Max. output current	14.4 A	16 A	23.9 A ⁵	28.6 A	9.7 A	16.1 A	24.1 A
Nominal voltage	220 V, 230 V, 240 V				415/240 V, 400/230 V, 380/220 V		
Grid frequency	50 – 60 Hz				50 – 60 Hz		
Power factor	0.8 leading and lagging				0.8 leading and lagging		
THDi	<2%				<3%		

¹ UK only.

² In first MPPT.

³ TSI-10K3D and TSI-15K3D have different capacities for MPPT1/MPPT2.

⁴ VDE 4105 rating is 4.6 kVA.

⁵ Germany: 20 A.

EI Inverter

	Single Phase				Three Phase		
	TSI-3K1D	TSI-3.7K1D ¹	TSI-5K1D	TSI-6K1D	TSI-6K3D	TSI-10K3D	TSI-15K3D
AC Off Grid							
Nominal output power	3 kW	3.680 kW	5 kW	6 kW	6 kW	10 kW	15 kW
Peak apparent power	3.6 kVA, 1 hr.	4.4 kVA, 1 hr.	6 kVA, 1 hr.	7.2 kVA, 10 min.	9 kVA, 60 sec.	15 kVA, 60 sec.	16.5 kVA, 60 sec.
Max. continuous current	13 A	16 A	21.7 A	26.1 A	8.7 A	14.5 A	21.8 A
THDv	<2%				<3%		
Switchover time	<0.25 sec.				<2 sec.		
General							
MPPT efficiency	>99%				>99%		
Max./Euro efficiency	97.6%/97.0%				98.2%/97.7%		
Standby consumption @night	<3 W				<5 W		
Noise	<30 dB				<40 dB	<45 dB	
Cooling	Natural convection				Forced airflow		
Dimensions (W x H x D)	482 x 417 x 181 mm				503 x 503 x 199 mm		
Weight	22 kg				34 kg		
Operating temperature range	-35 – 60 °C (derating >45)						
Storage temperature range	-40 – 70 °C						
Max. operating altitude	3000 m						
Humidity	0 – 100% non-condensing						
Communications	RS-485, Ethernet, WiFi						
Enclosure rating	IP65						
Compliance							
Safety	IEC 62109-1/-2						
EMC	EN 61000-6-1/2/3/4; EN 61000-3-2/3/11/12						
Standards	VDE 0126-1-1 A1:2012/VDE-AR-N 4105/G98/G99/ AS4777/EN 50549-1:2019/CEI 0-21						

¹ UK only.

EI Link

	Single Phase TSS-1PS	Three Phase TSS-3PS
Load		
Rated voltage/frequency	220 V, 230 V, 240 V/50 – 60 Hz	380 V, 400 V, 415 V/50 – 60 Hz
Max. input current	60 A	63 A
General		
Overvoltage protection AC/DC	III/II	
Enclosure rating	IP54	
Operating temperature range	-35 – 60 °C (derating >45)	
Storage temperature range	-40 – 70 °C	
Max. operating altitude	3000 m	
Humidity	0 – 100% non-condensing	
Cooling	Natural convection	
Dimensions (W x H x D)	482 x 437 x 184.5 mm	500 x 512 x 204.5 mm
Weight	10 kg	10 kg

EI Battery

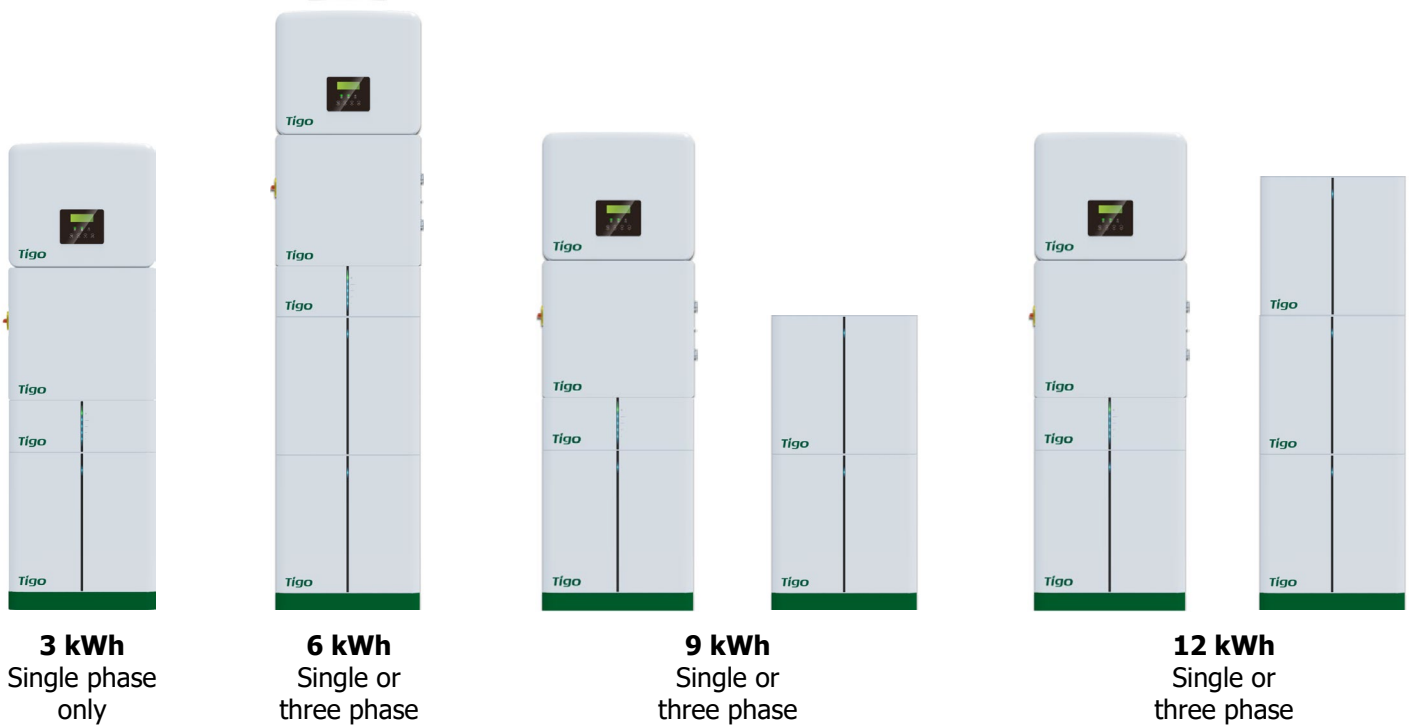
	TSB-3 ¹	TSB-6	TSB-9	TSB-12
Nominal voltage	102.4 V	204.8 V	307.2 V	409.6 V
Number of 3 kWh modules	1	2	3	4
Operating voltage range	90 – 116 V	180 – 232 V	270 – 348 V	360 – 464 V
Total energy	3 kWh	6.1 kWh	9.2 kWh	12.2 kWh
Usable energy ²	2.7 kWh	5.5 kWh	8.3 kWh	10.9 kWh
Normal power	2.5 kWh	5.1 kWh	7.6 kWh	10.2 kWh
Max. power	3 kWh	6.1 kWh	9.2 kWh	12.2 kWh
Max. charge/discharge current	30 A			
Battery efficiency	95%			
Cycle life (90% DoD)	6000 cycles			
Operating temperature range	-30 – 50 °C			
Storage temperature range	-20 – 50 °C			
Relative humidity	0 – 100%			
Max. altitude	3000 m			
Enclosure rating	IP65			
Battery to inverter comm.	RS-485/CAN2.0			
Battery to battery/BMS ³ comm.	CAN2.0			
Certifications	CE/IEC 62619/UN 38.3/IEC 62040/UKCA			
Hazardous materials	Class 9			
Dimensions (W x H x D) – BMS	482 x 173.5 x 153 mm			
Dimensions – module	482.5 x 471.5 x 153 mm			
Weight – BMS	7.5 kg			
Weight – module	34.5 kg			

¹ Single phase only

² Test conditions: 90% DoD, 0.2C charge and discharge @25 °C

³ Battery management system

Storage Configurations



Ordering Information

Part Number	Model Number	Description
601-1103K0-0001	TSI-3K1D	EI Inverter – 3 kW single-phase
601-1103K7-0001 ¹	TSI-3.7K1D	EI Inverter – 3.7 kW single-phase
601-1105K0-0001	TSI-5K1D	EI Inverter – 5 kW single-phase
601-1106K0-0001	TSI-6K1D	EI Inverter – 6 kW single-phase
601-1306K0-0001	TSI-6K3D	EI Inverter – 6 kW three-phase
601-1310K0-0001	TSI-10K3D	EI Inverter – 10 kW three-phase
601-1315K0-0001	TSI-15K3D	EI Inverter – 15 kW three-phase
702-1003H1-0001	TSB-3	EI Battery – 3 kWh battery module
705-100000-0001	TSM-12	EI Battery – battery management system (BMS)
707-100000-0001	TSK-E-12	EI Battery – accessory kit
803-110000-0001	TSS-1PS	EI Link – single-phase
803-130000-0001	TSS-3PS	EI Link – three-phase

¹ UK only.

More Resources

