Kstar	1F									3F							
MODEL	KSG-2.2K-SM	KSG-2.6K-SM	KSG-2.9K-SM	KSG-3K-SM	KSG-3.2K-SM	KSG-4.6K-DM	KSG-4.9K-DM	KSG-5K-DM	KSG-5.2K-DM	KSG-10K	KSG-12K	KSG-15K	KSG-17K	KSG-20K	KSG-30K	KSG-50K	KSG-60K
Input																	
Max. DC voltage	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	1000Vdc	1000Vdc	1000Vdc	1000Vdc	1000Vdc	1000Vdc	1000Vdc	1000Vdc
MPPT voltage range	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	80~450Vdc	250~950Vdc	250~950Vdc	250~950Vdc	250~950Vdc	250~950Vdc	250~950Vdc	250~950Vdc	250~950Vdc
Full load MPPT voltage range	-	-	-	-	-	-	-	-	-	480~800Vdc	480~800Vdc	480~800Vdc	480~800Vdc	480~800Vdc	400~800Vdc	480~800Vdc	500~800Vdc
Rated DC voltage	380Vdc	380Vdc	380Vdc	380Vdc	380Vdc	380Vdc	380Vdc	380Vdc	380Vdc	620Vdc	620Vdc	620Vdc	620Vdc	620Vdc	620Vdc	620Vdc	620Vdc
Min. / start DC voltage	120V/ 100Vdc	120V/ 100Vdc	120V/ 100Vdc	120V/ 100Vdc	120V/ 100Vdc	120 / 150Vdc	120 / 150Vdc	120 / 150Vdc	120 / 150Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc
Number of MPPT	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3
Strings per MPPT	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	4	4
DC Switch	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
Rated input current	11A	13A	13A	13A	13A	13A/13A	13A/13A	13A/13A	13A/13A	-	-	-	-	-	-	-	-
Max. input current per MPPT	11A	13A	13A	13A	13A	13A/13A	13A/13A	13A/13A	13A/13A	13A/13A	13A/13A	21A/21A	21A/21A	21A/21A	26A/26A/26A	36A/36A/36A	40A/40A/40A
Output (AC)																	
Rated AC output power	2200W	2600W	2900W	3000W	3200W	4900W	4600W	5000W	5200W	10kW	12kW	15kW	17kW	20kW	30kW	50kW	60kW
Max. AC output power	-	-	-	-	-	-	-	-	-	11kW	13kW	16kW	18kW	22kW	33kW	55kW	66kW
Rated AC voltage	230Vac	230Vac	230Vac	230Vac	230Vac	230Vac	230Vac	230Vac	230Vac	400Vac	400Vac	400Vac	400Vac	400Vac	400Vac	400Vac	400Vac
AC voltage range	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	230Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%	400Vac±20%
Rated AC grid frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
AC grid frequency range	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)	50 / 60Hz(±5Hz)
Rated output current	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44A	72A	87A
Max. output current	9.5A	11.5A	12.5A	11A	11A	20A	21.5A	22A	22.5A	17A	20A	24A	27A	32A	48A	80A	95A
Power factor (cosΦ)	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
AC connection	LN+PE	LN+PE	LN+PE	LN+PE	LN+PE	LN+PE	LN+PE	LN+PE	LN+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE	3W+N+PE/ 3W+PE
Topology	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less
Efficiency																	
Max. efficiency	97.0%	97.5%	97.6%	97.6%	97.6%	97.5%	97.5%	97.5%	97.5%	98%	98%	98%	98%	98%	98.3%	98.6%	98.6%
Euro efficiency	96.5%	97.0%	97.0%	97.0%	97.0%	96.5%	96.5%	96.5%	96.5%	97.5%	97.5%	97.5%	97.5%	97.5%	98.0%	98.2%	98.2%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	-	-	-	-	-	-	-	-
Standby consumption	<5W/1W	<5W/1W	<5W/1W	<5W/1W	<5W/1W	<5W/1W	<5W/1W	<5W/1W	<5W/1W	-	-	-	-	-	-	-	-
Protection devices																	
All-pole fault current monitoring unit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
AC short-circuit protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
AC leakage current fault protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LVRT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes
Ground fault protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Anti-islanding protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC overvoltage protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC surge protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC surge protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC reverse-polarity protection	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Physical																	
Dimensions W x D x H (mm)	265 / 325 / 126	265 / 325 / 126	265 / 325 / 126	265 / 325 / 126	265 / 325 / 126	317/466/150	317/466/151	317/466/152	317/466/153	553×715×228	553×715×229	553×715×230	553×715×231	553×715×232	636×958×260	636×958×260	636×958×260
Weight(kg)	8.1	8.6	8.6	8.6	8.6	15.5	15.5	15.5	15.5	35	35	39	39	39	61	68	70
Environment																	
Operating temperature range	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C	–25°C~+60°C
Noise emission (typical)	≤25dB	≤25dB	≤25dB	≤25dB	≤25dB	≤25dB	≤25dB	≤25dB	≤25dB	<40dB	<40dB	<40dB	<40dB	<40dB	<40dB	<60dB	<60dB
Cooling type	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Fans	Fans
Protection rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Features																	
LCD display	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interfaces	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485/WIFI/GPRS	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)	RS485 (WiFi Plug/GPRS Plug optional)