



Product Service

Compliance Document

No. D 075386 0295 Rev. 00

Holder of Attestation: **Shenzhen Kstar New Energy Company Limited**

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Kstar Industrial Park, Guangming Hi-tech Industrial Zone
518107 Shenzhen, Guangdong Province
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
(Energy Storage Inverter & Hybrid Inverter)

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Test report no.: 64290253043801

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(Billy Qiu)



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Model(s):

Hybrid Inverter:

KAC50DP2, KAC49.9DP2, KAC40DP2,
KAC30DP2, KAC29.9DP2, KAC25DP2,
KAC20DP2,
KAC50DP2-S0, KAC49.9DP2-S0,
KAC40DP2-S0, KAC30DP2-S0,
KAC29.9DP2-S0, KAC25DP2-S0,
KAC20DP2-S0

Energy Storage Inverter:

KAC50D2, KAC49.9D2, KAC40D2, KAC30D2,
KAC29.9D2, KAC25D2, KAC20D2,
KAC50D2-S0, KAC49.9D2-S0, KAC40D2-S0,
KAC30D2-S0, KAC29.9D2-S0, KAC25D2-S0,
KAC20D2-S0

Parameters:

Model	KAC50DP2	KAC49.9DP2	KAC40DP2	KAC30DP2
PV terminal parameters				
Maximum input voltage [V _{DC}]	1000	1000	1000	1000
Rated input voltage [V _{DC}]	720	720	720	720
PV input operating voltage range [V _{DC}]	250-950	250-950	250-950	250-950
MPPT voltage range (full load) [V _{DC}]	620-800	620-800	500-800	400-800
MPPT tracker number	4	4	4	4
Maximum operating PV input current [A _{DC}]	45/45/45/45	45/45/45/45	45/45/45/45	45/45/45/45
Maximum PV short circuit current [A _{DC}]	60/60/60/60	60/60/60/60	60/60/60/60	60/60/60/60
Battery input/output parameters				
Battery type	Lithium-ion	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V _{DC}]	900	900	900	900
Battery rated voltage [V _{DC}]	720	720	720	720
Battery voltage range [V _{DC}]	150-900	150-900	150-900	150-900
Maximum charge power [W]	50000	49900	40000	30000



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Maximum discharge power [W]	50000	49900	40000	30000
Maximum charge current [A_{DC}]	80/80	80/80	72/72	65/65
Maximum discharge current [A_{DC}]	80/80	80/80	72/72	65/65
Grid terminal input parameters				
Rated input voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated input frequency [Hz]	50/60	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A_{AC}]	80	72	64	48
Maximum continuous input current [A_{AC}]	160	144	128	96
Maximum continuous input power from grid to battery [W]	50000	49900	40000	30000
Maximum continuous input active power [W]	100000	99800	80000	60000
Maximum continuous input apparent power [VA]	110000	99800	88000	66000
Grid terminal output parameters				
Rated output voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60	50/60
Rated output current [A_{AC}]	72/76	72/72	58/60.6	43/45.5
Maximum continuous output current [A_{AC}]	80	72	64	48
Rated output active power [W]	50000	49900	40000	30000
Maximum output active power [W]	50000	49900	40000	30000
Maximum continuous output apparent power [VA]	55000	49900	44000	33000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)			



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Model	KAC29.9DP2	KAC25DP2	KAC20DP2
PV terminal parameters			
Maximum input voltage [V _{DC}]	1000	1000	1000
Rated input voltage [V _{DC}]	720	720	720
PV input operating voltage range [V _{DC}]	250-950	250-950	250-950
MPPT voltage range (full load) [V _{DC}]	400-800	350-800	300-800
MPPT tracker number	4	4	4
Maximum operating PV input current [A _{DC}]	45/45/45/45	45/45/45/45	45/45/45/45
Maximum PV short circuit current [A _{DC}]	60/60/60/60	60/60/60/60	60/60/60/60
Battery input/output parameters			
Battery type	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V _{DC}]	900	900	900
Battery rated voltage [V _{DC}]	720	720	720
Battery voltage range [V _{DC}]	150-900	150-900	150-900
Maximum charge power [W]	29900	25000	20000
Maximum discharge power [W]	29900	25000	20000
Maximum charge current [A _{DC}]	65/65	60/60	55/55
Maximum discharge current [A _{DC}]	65/65	60/60	55/55
Grid terminal input parameters			
Rated input voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated input frequency [Hz]	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A _{AC}]	43	40	32
Maximum continuous input current [A _{AC}]	87	80	64
Maximum continuous input power from grid to battery [W]	29900	25000	20000
Maximum continuous input active power [W]	59800	50000	40000
Maximum continuous input apparent power [VA]	59800	55000	44000
Grid terminal output parameters			
Rated output voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60
Rated output current [A _{AC}]	43/43	36/37.9	29/30.3
Maximum continuous output current [A _{AC}]	43	40	32
Rated output active power [W]	29900	25000	20000
Maximum output active power [W]	29900	25000	20000
Maximum continuous output apparent power [VA]	29900	27500	22000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)		



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Model	KAC50DP2 -S0	KAC49.9DP2 -S0	KAC40DP2 -S0	KAC30DP2 -S0
PV terminal parameters				
Maximum input voltage [V _{DC}]	1000	1000	1000	1000
Rated input voltage [V _{DC}]	720	720	720	720
PV input operating voltage range [V _{DC}]	250-950	250-950	250-950	250-950
MPPT voltage range (full load) [V _{DC}]	620-800	620-800	500-800	400-800
MPPT tracker number	4	4	4	4
Maximum operating PV input current [A _{DC}]	45/45/45/45	45/45/45/45	45/45/45/45	45/45/45/45
Maximum PV short circuit current [A _{DC}]	60/60/60/60	60/60/60/60	60/60/60/60	60/60/60/60
Battery input/output parameters				
Battery type	Lithium-ion	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V _{DC}]	900	900	900	900
Battery rated voltage [V _{DC}]	720	720	720	720
Battery voltage range [V _{DC}]	150-900	150-900	150-900	150-900
Maximum charge power [W]	50000	49900	40000	30000
Maximum discharge power [W]	50000	49900	40000	30000
Maximum charge current [A _{DC}]	80/80	80/80	72/72	65/65
Maximum discharge current [A _{DC}]	80/80	80/80	72/72	65/65
Grid terminal input parameters				
Rated input voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated input frequency [Hz]	50/60	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A _{AC}]	80	72	64	48
Maximum continuous input current [A _{AC}]	80	72	64	48
Maximum continuous input power from grid to battery [W]	50000	49900	40000	30000
Maximum continuous input active power [W]	50000	49900	40000	30000
Maximum continuous input apparent power [VA]	55000	49900	44000	33000
Grid terminal output parameters				



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Rated output voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60	50/60
Rated output current [A _{AC}]	72/76	72/72	58/60.6	43/45.5
Maximum continuous output current [A _{AC}]	80	72	64	48
Rated output active power [W]	50000	49900	40000	30000
Maximum output active power [W]	50000	49900	40000	30000
Maximum continuous output apparent power [VA]	55000	49900	44000	33000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)			

Model	KAC29.9DP2-S0	KAC25DP2-S0	KAC20DP2-S0
PV terminal parameters			
Maximum input voltage [V _{DC}]	1000	1000	1000
Rated input voltage [V _{DC}]	720	720	720
PV input operating voltage range [V _{DC}]	250-950	250-950	250-950
MPPT voltage range (full load) [V _{DC}]	400-800	350-800	300-800
MPPT tracker number	4	4	4
Maximum operating PV input current [A _{DC}]	45/45/45/45	45/45/45/45	45/45/45/45
Maximum PV short circuit current [A _{DC}]	60/60/60/60	60/60/60/60	60/60/60/60
Battery input/output parameters			
Battery type	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V _{DC}]	900	900	900
Battery rated voltage [V _{DC}]	720	720	720
Battery voltage range [V _{DC}]	150-900	150-900	150-900
Maximum charge power [W]	29900	25000	20000
Maximum discharge power [W]	29900	25000	20000
Maximum charge current [A _{DC}]	65/65	60/60	55/55
Maximum discharge current [A _{DC}]	65/65	60/60	55/55
Grid terminal input parameters			
Rated input voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380



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Rated input frequency [Hz]	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A_{AC}]	43	40	32
Maximum continuous input current [A_{AC}]	43	40	32
Maximum continuous input power from grid to battery [W]	29900	25000	20000
Maximum continuous input active power [W]	29900	25000	20000
Maximum continuous input apparent power [VA]	29900	27500	22000
Grid terminal output parameters			
Rated output voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60
Rated output current [A_{AC}]	43/43	36/37.9	29/30.3
Maximum continuous output current [A_{AC}]	43	40	32
Rated output active power [W]	29900	25000	20000
Maximum output active power [W]	29900	25000	20000
Maximum continuous output apparent power [VA]	29900	27500	22000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)		

Model	KAC50D2	KAC49.9D2	KAC40D2	KAC30D2
Battery input/output parameters				
Battery type	Lithium-ion	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V_{DC}]	900	900	900	900
Battery rated voltage [V_{DC}]	720	720	720	720
Battery voltage range [V_{DC}]	150-900	150-900	150-900	150-900
Maximum charge power [W]	50000	49900	40000	30000
Maximum discharge power [W]	50000	49900	40000	30000
Maximum charge current [A_{DC}]	80/80	80/80	72/72	65/65
Maximum discharge current [A_{DC}]	80/80	80/80	72/72	65/65
Grid terminal input parameters				
Rated input voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated input frequency [Hz]	50/60	50/60	50/60	50/60



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Maximum continuous input current from grid to battery [A_{AC}]	80	72	64	48
Maximum continuous input current [A_{AC}]	160	144	128	96
Maximum continuous input power from grid to battery [W]	50000	49900	40000	30000
Maximum continuous input active power [W]	100000	99800	80000	60000
Maximum continuous input apparent power [VA]	110000	99800	88000	66000
Grid terminal output parameters				
Rated output voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60	50/60
Rated output current [A_{AC}]	72/76	72/72	58/60.6	43/45.5
Maximum continuous output current [A_{AC}]	80	72	64	48
Rated output active power [W]	50000	49900	40000	30000
Maximum output active power [W]	50000	49900	40000	30000
Maximum continuous output apparent power [VA]	55000	49900	44000	33000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)			

Model	KAC29.9D2	KAC25D2	KAC20D2
Battery input/output parameters			
Battery type	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V_{DC}]	900	900	900
Battery rated voltage [V_{DC}]	720	720	720
Battery voltage range [V_{DC}]	150-950	150-950	150-950
Maximum charge power [W]	29900	25000	20000
Maximum discharge power [W]	29900	25000	20000
Maximum charge current [A_{DC}]	65/65	60/60	55/55
Maximum discharge current [A_{DC}]	65/65	60/60	55/55
Grid terminal input parameters			
Rated input voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380



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Rated input frequency [Hz]	50/60	50/60	50/60
Maximum continuous input current from grid to battery [I_{AC}]	43	40	32
Maximum continuous input current [I_{AC}]	87	80	64
Maximum continuous input power from grid to battery [W]	29900	25000	20000
Maximum continuous input active power [W]	59800	50000	40000
Maximum continuous input apparent power [VA]	59800	55000	44000
Grid terminal output parameters			
Rated output voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60
Rated output current [I_{AC}]	43/43	36/37.9	29/30.3
Maximum continuous output current [I_{AC}]	43	40	32
Rated output active power [W]	29900	25000	20000
Maximum output active power [W]	29900	25000	20000
Maximum continuous output apparent power [VA]	33000	27500	22000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)		

Model	KAC50D2-S0	KAC49.9D2-S0	KAC40D2-S0	KAC30D2-S0
Battery input/output parameters				
Battery type	Lithium-ion	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V_{DC}]	900	900	900	900
Battery rated voltage [V_{DC}]	720	720	720	720
Battery voltage range [V_{DC}]	150-900	150-900	150-900	150-900
Maximum charge power [W]	50000	49900	40000	30000
Maximum discharge power [W]	50000	49900	40000	30000
Maximum charge current [I_{DC}]	80/80	80/80	72/72	65/65
Maximum discharge current [I_{DC}]	80/80	80/80	72/72	65/65
Grid terminal input parameters				
Rated input voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380



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Rated input frequency [Hz]	50/60	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A_{AC}]	80	72	64	48
Maximum continuous input current [A_{AC}]	80	72	64	48
Maximum continuous input power from grid to battery [W]	50000	49900	40000	30000
Maximum continuous input active power [W]	50000	49900	40000	30000
Maximum continuous input apparent power [VA]	55000	49900	44000	33000
Grid terminal output parameters				
Rated output voltage [V_{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60	50/60
Rated output current [A_{AC}]	72/76	72/72	58/60.6	43/45.5
Maximum continuous output current [A_{AC}]	80	72	64	48
Rated output active power [W]	50000	49900	40000	30000
Maximum output active power [W]	50000	49900	40000	30000
Maximum continuous output apparent power [VA]	55000	49900	44000	33000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)			

Model	KAC29.9D2-S0	KAC25D2-S0	KAC20D2-S0
Battery input/output parameters			
Battery type	Lithium-ion	Lithium-ion	Lithium-ion
Maximum voltage [V_{DC}]	900	900	900
Battery rated voltage [V_{DC}]	720	720	720
Battery voltage range [V_{DC}]	150-900	150-900	150-900
Maximum charge power [W]	29900	25000	20000
Maximum discharge power [W]	29900	25000	20000
Maximum charge current [A_{DC}]	65/65	60/60	55/55
Maximum discharge current [A_{DC}]	65/65	60/60	55/55
Grid terminal input parameters			



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Rated input voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated input frequency [Hz]	50/60	50/60	50/60
Maximum continuous input current from grid to battery [A _{AC}]	43	40	32
Maximum continuous input current [A _{AC}]	43	40	32
Maximum continuous input power from grid to battery [W]	29900	25000	20000
Maximum continuous input active power [W]	29900	25000	20000
Maximum continuous input apparent power [VA]	29900	27500	22000
Grid terminal output parameters			
Rated output voltage [V _{AC}]	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380	3P+N+PE, 230/400 220/380
Rated output frequency [Hz]	50/60	50/60	50/60
Rated output current [A _{AC}]	43/43	36/37.9	29/30.3
Maximum continuous output current [A _{AC}]	43	40	32
Rated output active power [W]	29900	25000	20000
Maximum output active power [W]	29900	25000	20000
Maximum continuous output apparent power [VA]	29900	27500	22000
Power factor	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)		

**Tested
according to:**

IEC 61727:2004
IEC 62116:2014