

# iKran series ePowercube

Residential



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# iKran A10 A +LV Specifications

| MODEL                                                   | A+LV-3.0/5.38kWh |  | A+LV-3.68/5.38kWh |  | A+LV-4.0/5.38kWh                                                                                                                                                                     |  | A+LV-5L/10.76kWh |  |
|---------------------------------------------------------|------------------|--|-------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|--|
| PCS UNIT                                                |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| PV INPUT(DC)                                            |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Max.PV array power(Wp)                                  | 6000             |  | 6680              |  | 7000                                                                                                                                                                                 |  | 7500             |  |
| Max.DC voltage(V)                                       |                  |  |                   |  | 550                                                                                                                                                                                  |  |                  |  |
| Nominal DC operating Voltage(V)                         |                  |  |                   |  | 380                                                                                                                                                                                  |  |                  |  |
| Max.input current(input A/input B)                      |                  |  |                   |  | 12+12                                                                                                                                                                                |  |                  |  |
| Max.short circuit current(input A/input B)              |                  |  |                   |  | 17+17                                                                                                                                                                                |  |                  |  |
| MPPT voltage range(V)                                   |                  |  |                   |  | 100 to 530 / 380                                                                                                                                                                     |  |                  |  |
| Start operating voltage(V)                              |                  |  |                   |  | 100 / 125                                                                                                                                                                            |  |                  |  |
| No. of MPP trackers/Strings per MPPT tracker            |                  |  |                   |  | 2/1+1                                                                                                                                                                                |  |                  |  |
| AC OUTPUT ( Grid output/input)                          |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Nomial AC power(Va)                                     | 3000             |  | 3680              |  | 4000                                                                                                                                                                                 |  | 5000 *1          |  |
| Max.apparent AC power(VA)                               | 3000             |  | 3680              |  | 4000                                                                                                                                                                                 |  | 5000 *2          |  |
| Nominal grid voltage(AC voltage range)(V)               |                  |  |                   |  | 180 to 280 / 230                                                                                                                                                                     |  |                  |  |
| Nominal grid frequency/range(Hz)                        |                  |  |                   |  | 50/60Hz                                                                                                                                                                              |  |                  |  |
| Max.AC current(A)                                       | 13.6             |  | 16                |  | 18.2                                                                                                                                                                                 |  | 22.7 *3          |  |
| Power factor                                            |                  |  |                   |  | 0.8 leading to 0.8 lagging                                                                                                                                                           |  |                  |  |
| THDi(%)                                                 |                  |  |                   |  | <3                                                                                                                                                                                   |  |                  |  |
| Max.grid input parrent power(VA)                        |                  |  |                   |  | 6000                                                                                                                                                                                 |  |                  |  |
| Max.grid input current (A)                              |                  |  |                   |  | a.c.27.3                                                                                                                                                                             |  |                  |  |
| OUTPUT DC(BATTERY)                                      |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Battery type                                            |                  |  |                   |  | Lithium-ion                                                                                                                                                                          |  |                  |  |
| Battery voltage range(V)                                |                  |  |                   |  | 40~60                                                                                                                                                                                |  |                  |  |
| Recommended battery voltage(V)                          |                  |  |                   |  | 60                                                                                                                                                                                   |  |                  |  |
| Max.continuous charge/discharge current(A)              | 90               |  |                   |  |                                                                                                                                                                                      |  | 120              |  |
| Communication interfaces                                |                  |  |                   |  | RS485/CAN                                                                                                                                                                            |  |                  |  |
| EPS OUTPUT(WITH BATTERY)                                |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| EPS Max.continuiuous apparent power(Va)                 |                  |  |                   |  | 3000                                                                                                                                                                                 |  |                  |  |
| Peak output apparent power (VA)                         |                  |  |                   |  | 4500 ,10s                                                                                                                                                                            |  |                  |  |
| EPS rated voltage(V),Frequency(Hz)                      |                  |  |                   |  | 230,50/60                                                                                                                                                                            |  |                  |  |
| EPS Max.continuiuous current(A)                         |                  |  |                   |  | a.c.13.7A                                                                                                                                                                            |  |                  |  |
| EPS peak appparent power(Rated)%,Duration(s)            |                  |  |                   |  | 200%, 10s                                                                                                                                                                            |  |                  |  |
| Switching time(ms)                                      |                  |  |                   |  | <10ms                                                                                                                                                                                |  |                  |  |
| THDv,linear load(%)                                     |                  |  |                   |  | <3                                                                                                                                                                                   |  |                  |  |
| EFFICIENCY                                              |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| MPPT efficiency(%)                                      |                  |  |                   |  | 99.90                                                                                                                                                                                |  |                  |  |
| Euro efficiency(%)                                      |                  |  |                   |  | 96.50                                                                                                                                                                                |  |                  |  |
| Max.efficiency(%)                                       |                  |  |                   |  | 97.60                                                                                                                                                                                |  |                  |  |
| Battery charge/discharge efficiency(%)                  |                  |  |                   |  | 94.7%                                                                                                                                                                                |  |                  |  |
| POWER CONSUMPTION                                       |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Standby consumption(Night)(W)                           |                  |  |                   |  | 10                                                                                                                                                                                   |  |                  |  |
| STANDARD                                                |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Safety                                                  |                  |  |                   |  | EN50549-1, CEI 0-21, IEC61727, IEC62116, IEC60068, IEC61683, ABNT NBR 16149, ABNT NBR 16150, AS4777.2, VDE 4105, XP C15-712-3, RD1699, UNE 206006 IN, UNE 206007-1 IN ,IEC62109-1/-2 |  |                  |  |
| EMC                                                     |                  |  |                   |  | IEC62040-1,IEC61000-6-1,IEC61000-6-3,IEC61000-3-11, IEC61000-3-12, IEC61000-4-16,IEC61000-4-18,IEC61000-4-29                                                                         |  |                  |  |
| ENVIRONMENT LIMIT                                       |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Ingress protection(according to IEC60529)               |                  |  |                   |  | IP65                                                                                                                                                                                 |  |                  |  |
| Operating temperature range(°C)                         |                  |  |                   |  | -10~55 ( >45°C, Derating)                                                                                                                                                            |  |                  |  |
| Max.operation altitude(m)                               |                  |  |                   |  | 2000                                                                                                                                                                                 |  |                  |  |
| Humidity(%)                                             |                  |  |                   |  | 0~95 (no condensation)                                                                                                                                                               |  |                  |  |
| Storage temperature(°C)                                 |                  |  |                   |  | -20~60                                                                                                                                                                               |  |                  |  |
| Noise emission(dB)                                      |                  |  |                   |  | < 21                                                                                                                                                                                 |  |                  |  |
| BATTERY UNIT                                            |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Nominal Voltage(V)                                      |                  |  |                   |  | 51.2                                                                                                                                                                                 |  |                  |  |
| Operating voltage range(V)                              |                  |  |                   |  | 45~58                                                                                                                                                                                |  |                  |  |
| Total Capacity(Kwh)                                     |                  |  |                   |  | 5.38                                                                                                                                                                                 |  |                  |  |
| Usable Capacity(kwh)                                    |                  |  |                   |  | 5.12                                                                                                                                                                                 |  |                  |  |
| Rated capacity(Ah)                                      |                  |  |                   |  | 105                                                                                                                                                                                  |  |                  |  |
| Standard power(Kw)                                      |                  |  |                   |  | 2.5                                                                                                                                                                                  |  |                  |  |
| Max charge/discharge power(Kw)                          |                  |  |                   |  | 5.0/5.0                                                                                                                                                                              |  |                  |  |
| Recommend charge/discharge current(A)                   |                  |  |                   |  | 50/50                                                                                                                                                                                |  |                  |  |
| Max.charge/discharge current(A)                         |                  |  |                   |  | 100/100                                                                                                                                                                              |  |                  |  |
| Cycle life(90% DOD)                                     |                  |  |                   |  | >6000cycles                                                                                                                                                                          |  |                  |  |
| Expected life time/Warranty(Year)                       |                  |  |                   |  | 10                                                                                                                                                                                   |  |                  |  |
| Operating temperature range(°C)                         |                  |  |                   |  | -10 ~50                                                                                                                                                                              |  |                  |  |
| Storage temperature(°C)                                 |                  |  |                   |  | -20~60                                                                                                                                                                               |  |                  |  |
| Humidity(%)                                             |                  |  |                   |  | 0~95 (no condensation)                                                                                                                                                               |  |                  |  |
| Altitude(m)                                             |                  |  |                   |  | 2000                                                                                                                                                                                 |  |                  |  |
| Ingress protection                                      |                  |  |                   |  | IP65                                                                                                                                                                                 |  |                  |  |
| System to inverter communication/Communication with BMS |                  |  |                   |  | RS485/CAN                                                                                                                                                                            |  |                  |  |
| Master LED indicator                                    |                  |  |                   |  | LED                                                                                                                                                                                  |  |                  |  |
| System switch(on/off)                                   |                  |  |                   |  | BMS button                                                                                                                                                                           |  |                  |  |
| Safety certificate                                      |                  |  |                   |  | IEC/EN 62619,IEC 63056,IEC 62477-1,IEC62040-1                                                                                                                                        |  |                  |  |
| EMC                                                     |                  |  |                   |  | IEC61000-6-1,IEC61000-6-3,                                                                                                                                                           |  |                  |  |
| UN number                                               |                  |  |                   |  | 3480                                                                                                                                                                                 |  |                  |  |
| Dimensions(L*W*H) mm                                    |                  |  |                   |  | 550*550*220                                                                                                                                                                          |  |                  |  |
| Weight(kg)                                              |                  |  |                   |  | 58                                                                                                                                                                                   |  |                  |  |
| GENERAL DATA                                            |                  |  |                   |  |                                                                                                                                                                                      |  |                  |  |
| Dimensions(W*D*H)(mm)                                   | 550*240*1250     |  | 550*240*1250      |  | 550*240*1250                                                                                                                                                                         |  | 550*240*1800     |  |
| Weight(kg)                                              | 85               |  | 85                |  | 85                                                                                                                                                                                   |  | 145              |  |
| Cooling                                                 |                  |  |                   |  | Natural                                                                                                                                                                              |  |                  |  |
| Standard warranty(Years)                                |                  |  |                   |  | 10                                                                                                                                                                                   |  |                  |  |

\*1 Nominal AC power set to 4600 W for VDE-AR-4105 grid code

\*2 Apparent power set to 4600 W for VDE-AR-4105 grid code

\*3 Max. output current limited to 21.7 A when set to the AS/NZS 4777.2 grid code. Version: July, 2022