

ARK Battery Spec Sheet



DESCRIPTION	100AH, 48V	200AH, 24V	200AH,48V
MODEL NUMBER (NRTL)	16IFR51.2-100-Y	8IFR25.6-200-Y	16IFR51.2-200-Y
MODEL NUMBER (SIMPLIFIED)	ARK512100	ARK256200	ARK512200

POWER RATINGS	100AH, 48V	200AH, 24V	200AH,48V
NOMINAL VOLTAGE	48	24	48
ACTUAL VOTLAGE @ 20% SOC	51.2	25.6	51.2
AMP-HRS	100	200	200
NAMEPLATE CAPACITY -KWH	5.12	5.12	10.24

CHARGING/ DISCHARGING	100AH, 48V	200AH, 24V	200AH,48V
MAX CONTINUOUS DISCHARGE AMPS	100	140	140
RECOMMENDED DISCHARGE (MAX AMPS)	80	120	120
MAX CONT. DISCHARGE KW	5.12	3.58	7.17
SURGE DISCHARGE 1 MS	250	350	350
SURGE DISCHARGE 10MS	160	240	240
MAX CHARGING AMPS- CONTINUOUS	50	100	100
PEAK CHARGING AMPS- 30 MINUTES	80	140	140
RECOMMENDED VOLTAGE RANGE (CYCLING)	51-57	25.5-28.5	51-57
MAX VOLTAGE RANGE (CYCLING)	46-57.6	23-28.8	46-57.6
RECOMMENDED ABSORB VOLTS	56.8	28.4	56.8
MAX ABSORB VOLTS- SOLAR ONLY	57.6	28.8	57.6
ABSORB DONE AMPS/ PER BATTERY	5	10	10
ABSORB DONE TIME (MINUTES)	10	10	10
FLOAT VOLTS	54.4	27.2	54.4
TEMP COMP- MV/ DEGREES CELSIUS	0	0	0

ENVIRONMENT/ INSTALLATION	100AH, 48V	200AH, 24V	200AH,48V
VENTILATION REQUIRED	NO	NO	NO
MINIMUM TEMP (DEGREES F)	32	32	32
MAXIMUM TEMP (DEGREES F)	120	120	120
HORIZONTAL INSTALLATION SUPPORTED	YES	YES	YES
VERTICAL INSTALLATION SUPPORTED	YES	YES	YES
SIDE & UPSIDE-DOWN INSTALLATION	VOIDS WARRANTY		

SAFETY	100AH, 48V	200AH, 24V	200AH,48V
BREAKER SIZE (AMPS)	100	160	160
BMS LOW VOLT CUTOUT	41 +/-1V	20.5 +/-1V	41 +/-1V
BMS HIGH VOLT CUTOUT	60.6 +/-1V	30.3 +/-1V	60.6 +/-1V
BMS LOW TEMP CUTOUT	32 F	32 F	32 F
BMS HIGH TEMP CUTOUT	149 F	149 F	149 F
PRESSURE VENTED CELLS	YES	YES	YES

INTERNAL	100AH, 48V	200AH, 24V	200AH,48V
CELL CHEMISTRY	LIFEPO4	LIFEPO4	LIFEPO4
CELL FORMAT	PRISMATIC	PRISMATIC	PRISMATIC
BMS AMP RATINGS	150	200	200
NEGATIVE SHUNT FOR SOC CALIBRATION	YES	YES	YES
BALANCING TYPE	IMPACTIVE	IMPACTIVE	IMPACTIVE
CELL CONNECTION	WELDED ALUMINUM BUSBAR		
MAX BALANCING CURRENT	1.1A	1.1A	1.1A
MIN/MAX BALANCING VOLTAGE	THROUGHOUT CHARGE/ DISCHARGE CYCLE		
BLUETOOTH CONNECTION AND MONITORING	BUILT-IN SELECTIVELY; AVAILABLE FOR TROUBLESHOOTING PURPOSES		

SPECS (cont.)



EXTERNAL	100AH, 48V	200AH, 24V	200AH,48V
NUMBER OF HANDLES ON SIDE	1	1	2
NUMBER OF HANDLES ON FRONT	2	2	2
NUMBER OF TERMINALS ON FRONT	2	2	2
NUMBER OF TERMINALS ON BACK	4	4	4
TERMINAL TYPE	BOLT-ON	BOLT-ON	BOLT-ON
TERMINAL INSULATORS INCLUDED	YES	YES	YES
FLANGE KIT FOR VERTICAL INSTALLATION INCLUDED	YES	YES	YES

LCD	100AH, 48V	200AH, 24V	200AH,48V
CHARGE INDICATOR	BLINKING GREEN BACKLIGHT		
DISCHARGE INDICATOR	SOLID GREEN BACKLIGHT		
PROGRAMMABLE SETTINGS	NO!	NO!	NO!
CHARGE/ DISCHARGE AMPS	YES	YES	YES
BATTERY VOLTS	YES	YES	YES
CHARGE/ DISCHARGE WATTS	YES	YES	YES
STATE OF CHARGE	YES	YES	YES
TIME UNTIL FULL/ EMPTY	YES	YES	YES
AH REMAINING	YES	YES	YES

OPERATIONAL	100AH, 48V	200AH, 24V	200AH,48V
RATED CYCLE LIFE 100% DOD	3,000	3,000	3,000
RATED CYCLE LIFE 80% DOD	5,000	5,000	5,000
RATED CYCLE LIFE 50% DOD	6,500	6,500	6,500
RETAINED CAPACITY AT END OF CYCLE LIFE	80%	80%	80%
MAX RECOMMENDED DISCHARGE	51V (20%)	51V (20%)	51V (20%)
INVERTER LOW BATTERY CUTOFF	48V	48V	48V
LOW VOLT CUTOFF WAKEUP	APPLY VOLTAGE >48V TO TERMINALS		
HIGH VOLT CUTOFF WAKEUP	DISCHARGE		
HIGH CURRENT CUTOFF WAKEUP	APPLY VOLTAGE > BATTERY VOLTAGE PRIOR TO CUTOFF		

CERTIFICATION	100AH, 48V	200AH, 24V	200AH,48V
BATTERY CERTIFICATION	UL1642 UL1973	UL1642	UL1642
TRANSPORT CERTIFICATION	UN38.3	UN38.3	UN38.3

PHYSICAL DIMENSIONS & WEIGHTS	100AH, 48V	200AH, 24V	200AH,48V
PACKAGED DIMENSIONS (IN)	17 x 24 x 33	17 x 24 x 33	17x 31x 38
PACKAGED WEIGHT (LBS)	185	185	335
BATTERY DIMENSIONS (IN)	9½L 15¾W 23¾H	9½L 15¾W 23¾H	9½L 31¼W 9¾H
BATTERY WEIGHT (LBS)	138	142	278