

EV12-33 (12V 33Ah)



Cells Per Unit 6 Voltage Per Unit 12 Nominal Capacity 33Ah@10hr-rate to 1.80V per cell @25°C Weight Approx. 10.2 Kg (Tolerance±3.0%) Length 195 mm Width 130 mm Height 155 mm Total Height 168 mm Internal Resistance Approx. 9.0 mΩ Terminal T6 Layout 1 Max. Discharge Current 330A (5 sec) Cold Cranking Ampere (CCA) 230A Max. Charging Current C3 25.6AH C5 28.8AH C10 33.0AH C10 33.0AH C20 35.0AH Float Charging Voltage 13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell Cycle Use Voltage 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Operating Temp. Range Charge: 0°C~50°C Storage: -20°C~60°C Charge: -20°C~60°C Nominal Operating Temp. Range 25°C±5°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using. Container Material A.B.S. U	Specifications							
Nominal Capacity 33Ah@10hr-rate to 1.80V per cell @25°C Weight Approx. 10.2 kg (Tolerance±3.0%) Length 195 mm Width 130 mm Height 155 mm Total Height 168 mm Internal Resistance Approx. 9.0 mΩ Terminal T6 Layout 1 Max. Discharge Current 330A (5 sec) Cold Cranking Ampere (CCA) 230A Max. Charging Current 3.25.6AH Reference Capacity C5 28.8AH C10 33.0AH C20 35.0AH C20 35.0AH C20 35.0AH Cycle Use Voltage 14.6 V~14.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell Cycle Use Voltage 14.6 V~14.8 V @ 25°C Operating Temp. Range Charge: 0°C~60°C Operating Temp. Range 25°C±5°C Nominal Operating Temp. Range 25°C±5°C Self Discharge Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.	Cells Per Unit	6						
WeightApprox. 10.2 kg (Tolerance±3.0%)DimensionsLength 195 mmWidth 130 mmWidth 155 mmHeight 155 mmTotal Height 168 mmInternal ResistanceApprox. 9.0 mΩTerminalT6Layout1Max. Discharge Current330A (5 sec)Cold Cranking Ampere (CCA)230AMax. Charging CurrentC3 25.6AHC5 28.8AHC5 28.8AHC10 33.0AHC20 35.0AHFloat Charging Voltage13.6 V~13.8 V @ 25°CTemperature Compensation: -3mV/°C/CellCycle Use Voltage14.6 V~14.8 V @ 25°CDischarge: -20°C~60°COperating Temp. RangeDischarge: -20°C~60°CNominal Operating Temp. Range25°C±5°CSelf Discharge25°C±5°CSelf Discharge25°C±5°CMonthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.	Voltage Per Unit	12						
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Nominal Capacity	33Ah@10hr-rate to 1.80V per cell @25° $\mathbb C$						
DimensionsWidth 130 mm Height 155 mm Total Height 168 mmInternal ResistanceApprox. 9.0 mΩTerminalT6Layout1Max. Discharge Current330A (5 sec)Cold Cranking Ampere (CCA)230AMax. Charging Current9.9AReference CapacityC3 25.6AH C10 33.0AH C20 35.0AHFloat Charging Voltage13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/CellCycle Use Voltage14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/CellOperating Temp. RangeDischarge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°CNominal Operating Temp. Range25°C±5°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Weight							
Terminal Layout 1 Max. Discharge Current 330A (5 sec) Cold Cranking Ampere (CCA) Max. Charging Current 9.9A Reference Capacity C5 28.8AH C10 33.0AH C20 35.0AH C20 35.0AH Float Charging Voltage Temperature Compensation: -3mV/°C/Cell Cycle Use Voltage 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Charge: -20°C~60°C Nominal Operating Temp. Range Self Discharge Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Dimensions	Width 130 mm Height 155 mm						
Layout 1 Max. Discharge Current 330A (5 sec) Cold Cranking Ampere (CCA) 230A Max. Charging Current 9.9A Reference Capacity C10 33.0AH C20 35.0AH C20 35.0AH Float Charging Voltage 13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell Cycle Use Voltage 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C Nominal Operating Temp. Range 25°C±5°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Internal Resistance	Approx. 9.0 mΩ						
Max. Discharge Current 330A (5 sec) Cold Cranking Ampere (CCA) Max. Charging Current 9.9A C3 25.6AH C5 28.8AH C10 33.0AH C20 35.0AH Float Charging Voltage 13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell Cycle Use Voltage 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Operating Temp. Range Charge: 0°C~50°C Storage: -20°C~60°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Terminal	T6						
	Layout	1						
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Max. Discharge Current	330A (5 sec)						
Reference Capacity	Cold Cranking Ampere (CCA)	230A						
Reference Capacity	Max. Charging Current	9.9A						
Temperature Compensation: -3mV/°C/Cell 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Operating Temp. Range Charge: 0°C~50°C Storage: -20°C~60°C Nominal Operating Temp. Range 25°C±5°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Reference Capacity	C5 28.8AH C10 33.0AH						
Cycle Use Voltage Temperature Compensation: -4mV/°C/Cell Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C^60°C Nominal Operating Temp. Range 25°C±5°C Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Float Charging Voltage							
Operating Temp. Range Charge: 0°C~50°C Storage: -20°C~60°C Nominal Operating Temp. Range Self Discharge Obstacle Another Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.	Cycle Use Voltage							
Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Operating Temp. Range	Charge: 0°C~50°C						
Self Discharge to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please charged batteries before using.	Nominal Operating Temp. Range	25°C±5°C						
Container Material A.B.S. UL94-HB, UL94-V0 Optional.		to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C.Please						
	Container Material	A.B.S. UL94-HB, UL94-V0 Optional.						



Description and Features

VRLA EV Series is specially designed for frequent discharge in deep cycle applications. EV batteries offer reliable performance in high load situations and have a high cycle durability due to the specially designed active material, strong grids and thick plate construction. The addition of carbon ensures faster full recharging of the battery and longer battery life. This stable and durable battery is completely sealed and maintenance free.

Features

- Absorbent Glass Mat technology
- Long service life 50% more cycles than VRLA AGM
- Faster full recharging quick use of application
- Suitable for (deep) cycle applications

Layout	Terminal	UL certification
195 130	016 (0 63) M6 (0 236) M6 (0 236) M6 (0 236) M6 (0 236)	MH 64495

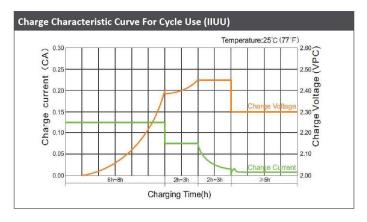
Constant Current Discharge Characteristics: A (25°C)												
F.V/Time	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	111.0	83.76	63.02	36.86	20.36	12.02	9.32	7.32	6.23	4.19	3.48	1.82
1.65V	107.0	79.15	60.25	35.39	19.67	11.64	9.03	7.12	6.07	4.14	3.44	1.79
1.70V	101.8	72.87	56.43	33.82	19.03	11.26	8.78	6.93	5.91	4.08	3.39	1.77
1.75V	95.1	66.70	52.51	32.33	18.33	10.86	8.52	6.75	5.76	4.02	3.34	1.75
1.80V	86.62	60.38	48.49	30.90	17.63	10.48	8.26	6.56	5.62	3.95	3.30	1.73
1.85V	76.23	49.35	40.24	26.61	15.81	9.60	7.63	6.10	5.24	3.71	3.11	1.64

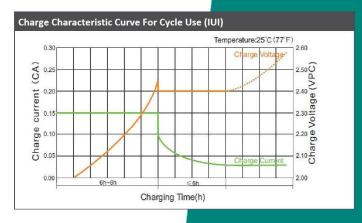
Constant P	Constant Power Discharge Characteristics: Wpc (25°C)											
F.V/Time	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	191.1	142.4	110.2	67.0	38.3	22.8	17.8	14.1	12.0	8.18	6.84	3.59
1.65V	189.0	137.1	106.9	64.9	37.2	22.2	17.3	13.7	11.7	8.10	6.77	3.53
1.70V	181.8	128.6	101.6	62.7	36.2	21.6	16.9	13.4	11.5	8.00	6.68	3.50
1.75V	172.9	119.8	95.9	60.5	35.1	20.9	16.5	13.1	11.2	7.90	6.60	3.46
1.80V	160.3	110.3	89.8	58.5	33.9	20.3	16.0	12.8	11.0	7.79	6.52	3.43
1.85V	143.6	91.8	75.6	50.8	30.6	18.7	14.9	11.9	10.3	7.33	6.15	3.26

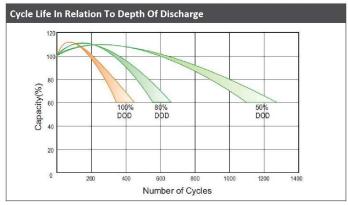
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C10 should reach 95% after the first cycle and 100% after the third cycle.

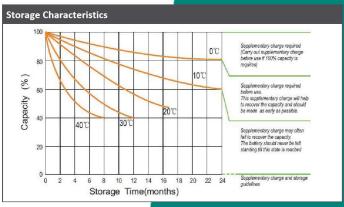


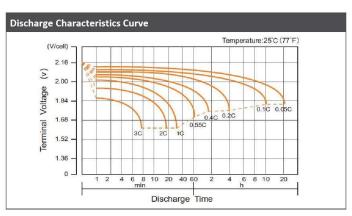
EV12-33 (12V 33Ah)

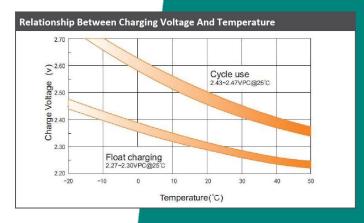


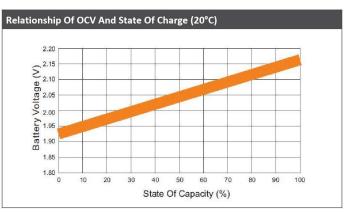


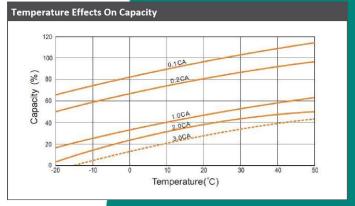












(Note) All above information shall be changed without prior notice, Landport Batteries reserves the right to explain and update the latest information.