

NINGBO EMP DC MOTOR DYNAMICS CO.,LTD

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EMP Trolling Motor Technical Data

Model	Navigator 1.0		Navigator 1.5		Navigator 2.0		Navigator 2.5		Navigator 3.0
Input power in watts	735		1100		1470		2100		2700
Propulsion power in watts	480		715		1000		1365		1700
Comparable petrol outboards (propulsive power)	2HP		3HP		4HP		6HP		8HP
Comparable petrol outboards (thrust)	3HP		4HP		5HP		7HP		9HP
Efficiency at maximum power in %	65		65		68		65		63
Maximum efficiency in %	≥83		≥83		≥85		≥83		≥80
Static thrust in lbs	80		100		120		140		160
Voltage in volt	12	24	24	48	24	48	24	48	48
Maximum current in amp	60	30	45	22.5	60	30	75	43	56
Maximum propeller speed in rpm	1100		1200		1350		1450		1600
Speeds(FWD/REV)	Variable								
Total weight in kg	8.0		9.0		10.0		11.0		12.0
Shaft length in cm	100/Customizable/Shaftless								
Control	Tilt/Extendable Tiller								
Battery gauge	Yes								
Overheat protection	Yes								
Low-voltage protection	Yes								
Stall protection	Yes								
Start protection	Yes								
Reverse connection protection	Yes								

Product Operation Data

Navigator 1.0 use 2X12V/100Ah batteries

Dinghies、sailboats up to 1.0 tons

	Speed (km/h)	Range (km)	Runtime (hours)
Slow speed	2.0 - 3.0	50.0 - 75.0	25:00
Half throttle	5.0 - 6.5	29.0 - 37.0	5:50
Full throttle	7.0 - 9.0	19.0 - 25.0	2:50

Navigator 1.5 use 2X12V/120Ah batteries or 4X12V/60Ah batteries

Dinghies、sailboats up to 1.5 tons

	Speed (km/h)	Range (km)	Runtime (hours)
Slow speed	2.0 - 3.0	60.0 - 90.0	30:00
Half throttle	5.5 - 7.0	28.0 - 36.0	5:10
Full throttle	7.5 - 9.5	17.0 - 22.0	2:20

Navigator 2.0 use 2X12V/180Ah batteries or 4X12V/90Ah batteries

Dinghies、sailboats up to 2.0 tons

	Speed (km/h)	Range (km)	Runtime (hours)
Slow speed	2.0 - 3.0	90.0 - 135.0	45:00
Half throttle	6.0 - 7.5	36.0 - 45.0	6:00
Full throttle	8.0 - 10.0	20.0 - 25.0	2:30

Navigator 2.5 use 2X12V/200Ah batteries or 4X12V/100Ah batteries

Dinghies、sailboats up to 3.0 tons

	Speed (km/h)	Range (km)	Runtime (hours)
Slow speed	2.0 - 3.0	100.0 -150.0	50:00
Half throttle	7.0 - 8.5	28.0 - 34.0	4:00
Full throttle	9.0 - 11.0	18.0 - 22.0	2:00

Navigator 3.0 use 4X12V/150Ah batteries

Dinghies、sailboats up to 4.0 tons

	Speed (km/h)	Range (km)	Runtime (hours)
Slow speed	3.0 -4.0	120.0 -160.0	40:00
Half throttle	8.0 - 9.0	32.0 - 36.0	4:00
Full throttle	10.0 - 12.0	20.0 - 24.0	2:00

Note: Ships size, shape, weight and wind speed, flow will affect the test results, so the above test data is only for reference.