

V-TEC CHF-GM1024-N10/20/30 DC Reduction Gear Motor Series U-TYPE Gearhead

V-TEC



GM1024-N10-U



GM1024-N20-U

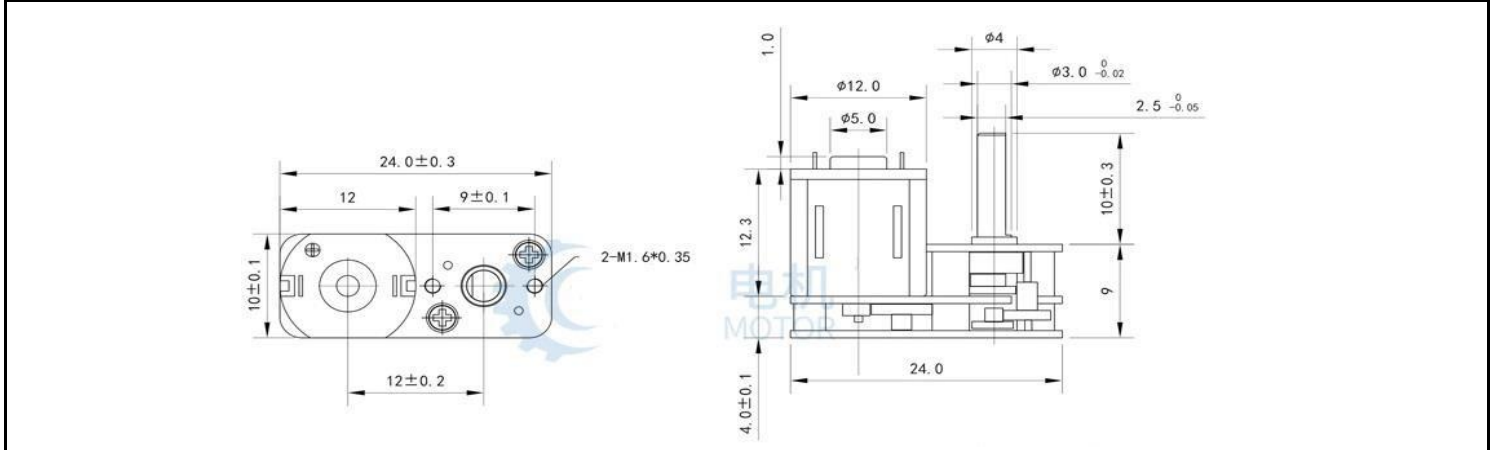


GM1024-N30-U

Material:	metal	RoHS compliant
Shaft:	stainless steel 3mm diameter D-shaped 10mm Length	Long lifetime, low noise
Voltage:	DC 3-12 V	Customized spec.can be discussed and available ex. Gearbox, shaft,ratio,flange,pinion,match encoder
Gearing:	high precision, high strength,various gear ratios	
Motor Type:	permanent magnet	
Rotation:	CW/CCW reversible	
Brush:	precious metal brush or carbon brush	

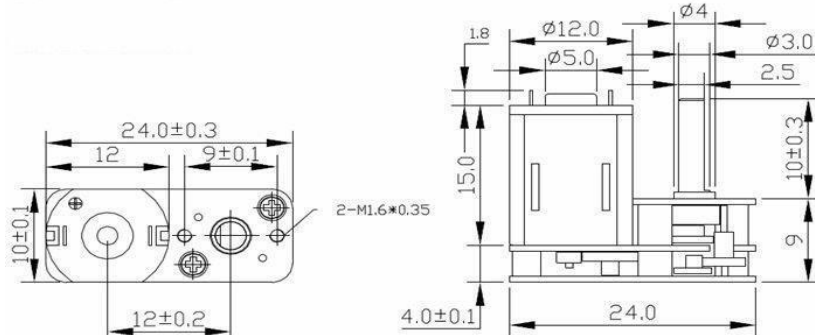
This high torque reverse metal gear mini DC motor is perfect for hobbyists and students who want to build robotic projects such as Intelligent robot, intelligent manipulator, intelligent furniture, Intelligent focusing system, miniature head, etc as well as any rotating mechanical device. Benefiting from its high torque, compact size and weight, these DC motors provide an excellent and reliable motion source for the inventor.

If the motor is connected to a non-rated voltage input, all parameters of the motor will change.



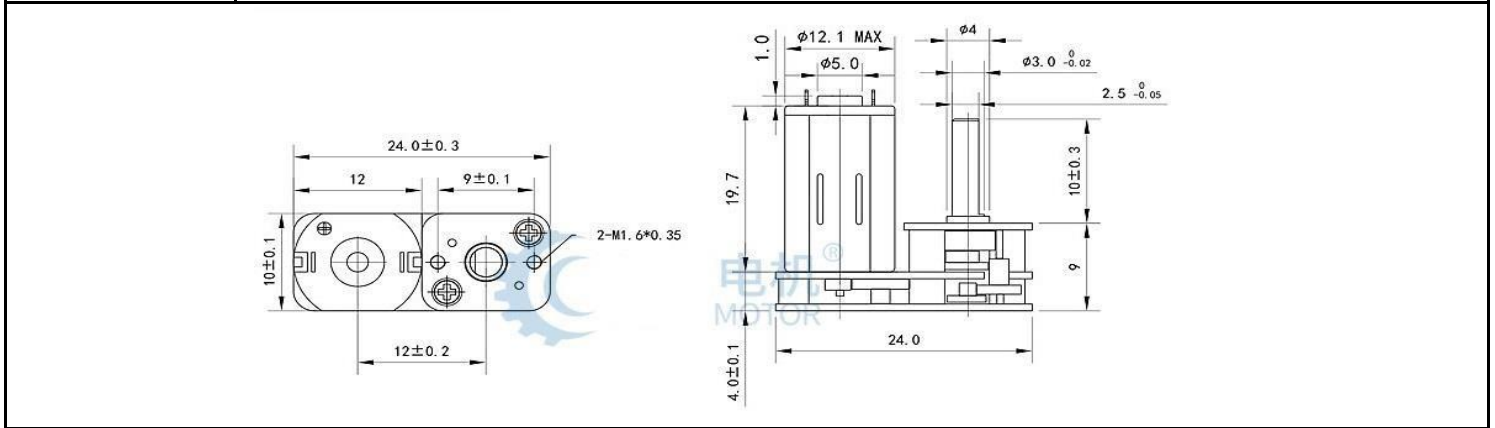
Performance summary and table of contents GM1024-N10-U

Motor Type	Rated Voltage V	Gear Ratio n:1	No Load		Rated			Power W	Stall Extrapolation		V-TEC Item
			Speed RPM (±10%)	Current mA	Speed RPM	Torque kg.cm	Current A		Torque kg.cm	Current A	
CHF-GM1024-N10-6V-21000	6	50	400	≤65	280	0,15	≤0,25	max. 0,35	≥0,3	≤0,6	MO06001
		100	200	≤65	140	0,3	≤0,25		≥0,7	≤0,6	MO06002
		150	133	≤65	92	0,45	≤0,25		≥0,9	≤0,6	MO06003
		200	100	≤65	70	0,6	≤0,25		≥1,5	≤0,6	MO06004
		350	57	≤65	40	1	≤0,25		≥2,4	≤0,6	MO06005
		500	40	≤65	28	1,5	≤0,25		≥3,0	≤0,6	MO06006
CHF-GM1024-N10-3V-10000	3	50	190	≤50	125	0,1	≤0,11	max. 0,12	≥0,2	≤0,25	MO06007
		100	95	≤50	63	0,2	≤0,11		≥0,4	≤0,25	MO06008
		150	63	≤50	42	0,3	≤0,11		≥0,6	≤0,25	MO06009
		200	47	≤50	31	0,4	≤0,11		≥0,8	≤0,25	MO06010
		350	27	≤50	18	0,7	≤0,11		≥1,5	≤0,25	MO06011
		500	19	≤50	12	1	≤0,11		≥2,0	≤0,25	MO06012
CHF-GM1024-N10-3V-22000	3	50	430	≤85	300	0,15	≤0,42	max. 0,42	≥0,3	≤1,0	MO06013
		100	215	≤85	150	0,3	≤0,42		≥0,7	≤1,0	MO06014
		150	140	≤85	100	0,45	≤0,42		≥0,9	≤1,0	MO06015
		200	105	≤85	75	0,6	≤0,42		≥1,5	≤1,0	MO06016
		350	60	≤85	60	1	≤0,42		≥2,4	≤1,0	MO06017
		500	42	≤85	42	1,5	≤0,42		≥3,0	≤1,0	MO06018



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Motor Type	Rated Voltage V	Gear Ratio n:1	No Load		Rated			Power W	Stall Extrapolation		V-TEC Item
			Speed RPM (±10%)	Current mA	Speed RPM	Torque kg.cm	Current A		Torque kg.cm	Current A	
CHF-GM1024-N20-12V-15000	12	50	300	≤30	150	0,1	≤-0,07	max. 0,8	0,45	≤0,3	MO06019
		100	150	≤30	75	0,2	≤-0,07		0,9	≤0,3	MO06020
		150	100	≤30	50	0,3	≤-0,07		1,2	≤0,3	MO06021
		200	75	≤30	37	0,4	≤-0,07		1,8	≤0,3	MO06022
		350	43	≤30	21	0,7	≤-0,07		2,2	≤0,3	MO06023
		380	40	≤30	20	0,8	≤-0,07		max. 3	≤0,3	MO06024
CHF-GM1024-N20-12V-21500	12	500	30	≤30	15	1	≤-0,07	max. 3	≤0,3	MO06025	
		50	430	≤55	290	0,25	≤0,2	max. 1,4	0,65	≤0,45	MO06026
		100	215	≤55	145	0,5	≤0,2		1,3	≤0,45	MO06027
		150	143	≤55	95	0,7	≤0,2		2	≤0,45	MO06028
		200	105	≤55	72	1	≤0,2		2,6	≤0,45	MO06029
		350	61	≤55	40	1,5	≤0,2		max. 3	≤0,45	MO06030
380	56	≤55	38	1,7	≤0,2	max. 3	≤0,45		MO06031		
CHF-GM1024-N20-6V-15000	6	500	43	≤55	29	2	≤0,2	max. 3	≤0,45	MO06032	
		50	330	≤45	190	0,25	≤-0,23	max. 0,6	0,5	≤0,5	MO06033
		100	160	≤45	100	0,5	≤-0,23		1	≤0,5	MO06034
		150	110	≤45	65	0,7	≤-0,23		1,5	≤0,5	MO06035
		200	80	≤45	48	1	≤-0,23		2	≤0,5	MO06036
		350	45	≤45	28	1,5	≤-0,23		max. 3	≤0,5	MO06037
380	42	≤45	26	1,7	≤-0,23	max. 3	≤0,5		MO06038		
CHF-GM1024-N20-6V-11000	6	500	32	≤45	20	2	≤-0,23	max. 3	≤0,5	MO06039	
		50	210	≤40	150	0,2	≤-0,15	max. 0,4	0,35	≤-0,25	MO06040
		100	105	≤40	75	0,4	≤-0,15		0,7	≤-0,25	MO06041
		150	70	≤40	50	0,6	≤-0,15		1	≤-0,25	MO06042
		200	55	≤40	37	0,8	≤-0,15		1,3	≤-0,25	MO06043
		350	30	≤40	21	1,4	≤-0,15		2,2	≤-0,25	MO06044
380	29	≤40	20	1,5	≤-0,15	max. 3	≤-0,25		MO06045		
CHF-GM1024-N20-3V-12000	3	500	22	≤40	15	2	≤-0,15	max. 3	≤-0,25	MO06046	
		50	240	≤45	150	0,2	≤-0,27	max. 0,5	0,5	≤-0,65	MO06047
		100	120	≤45	80	0,4	≤-0,27		1	≤-0,65	MO06048
		150	80	≤45	52	0,6	≤-0,27		1,5	≤-0,65	MO06049
		200	60	≤45	39	0,8	≤-0,27		2	≤-0,65	MO06050
		350	34	≤45	22	1,4	≤-0,27		max. 3	≤-0,65	MO06051
380	31	≤45	20	1,5	≤-0,27	max. 3	≤-0,65		MO06052		
CHF-GM1024-N20-3V-8000	3	500	24	≤45	15	2	≤-0,27	max. 3	≤-0,65	MO06053	
		50	160	≤45	90	0,2	≤-0,18	max. 0,2	0,35	≤0,3	MO06054
		100	80	≤45	45	0,4	≤-0,18		0,7	≤0,3	MO06055
		150	55	≤45	30	0,6	≤-0,18		1	≤0,3	MO06056
		200	40	≤45	21	0,8	≤-0,18		1,3	≤0,3	MO06057
		350	23	≤45	12	1,4	≤-0,18		2,2	≤0,3	MO06058
380	21	≤45	12	1,5	≤-0,18	max. 3	≤0,3		MO06059		
		500	16	≤45	9	2	≤-0,18	max. 3	≤0,3	MO06060	



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Motor Type	Rated Voltage V	Gear Ratio n:1	No Load		Rated			Power W	Stall Extrapolation		V-TEC Item
			Speed RPM (±10%)	Current mA	Speed RPM	Torque kg.cm	Current A		Torque kg.cm	Current A	
CHF-GM1024-N30-12V-16000	12	50	320	<=65	220	0,35	<=0,25	max. 1,5	1,2	<=0,6	MO06061
		100	160	<=65	110	0,7	<=0,25		2,4	<=0,6	MO06062
		150	105	<=65	72	1	<=0,25		max. 3	<=0,6	MO06063
		200	80	<=65	55	1,4	<=0,25		max. 3	<=0,6	MO06064
		350	45	<=65	31	2,5	<=0,25		max. 3	<=0,6	MO06065
		500	32	<=65	22	3	<=0,25		max. 3	<=0,6	MO06066
CHF-GM1024-N30-6V-7500	6	50	155	<=45	100	0,17	<=0,15	max. 0,35	0,6	<=0,3	MO06067
		100	78	<=45	50	0,35	<=0,15		1,2	<=0,3	MO06068
		150	52	<=45	33	0,5	<=0,15		1,8	<=0,3	MO06069
		200	38	<=45	25	0,7	<=0,15		2,4	<=0,3	MO06070
		350	22	<=45	14	1,2	<=0,15		max. 3	<=0,3	MO06071
		500	15	<=45	10	2,5	<=0,15		max. 3	<=0,3	MO06072

Precautions in using the motor

- 1、 If silicon materials, which contain low molecular silicon compounds, are here the motor's commutator, brush or other parts, then upon Rectification of the electric energy the silicon breaks down into SiO₂, SiC and other constituents which produce a rapid increase in the contact resistance between the commutator and brush. Therefore great care should be taken when silicon material is used in a unit and check well at the same time that such binding agents or sealing materials are not generating gases of detrimental nature, whether used for motor mounting or applied during your product assemblies. Care must be taken for an optimum selection, especially when using those of cyanic adhesive and sulfur gas.
- 2、 When mounting your motors by means of binding agents, DON'T allow any adherence to bearings nor intrusion into the motors.
- 3、 Axial thrust in the output shaft could have an adverse effect on the motor's lifetime. As is produced by worm gears, fans, etc., check the service life expected under the actual operating conditions by testing the motors installed in your application products. For heavy thrust loads, consider using something mechanical to retain shaft end.
- 4、 There are occasions when the internal resistance of the motor driving power source (which contains an electrical circuit) can influence the life span of the motor. In instances where there is a low input of voltage to the motor, the internal resistance of the power source is large which may well result in an inferior motor after a short time, conversely in instances where high cyclic voltages are applied, this internal resistance is small and the motor life span is shortened. When the temperature deviates from the normal room temperature as is the case in low and high temperature situations, please note the conditions.
- 5、 Motor life may be affected adversely by heavy radial load such as produced by rotating eccentric cams, etc., and also by vibration given from outside. Do check over such negative factors by testing the motors to the actual operating conditions in your application products.
- 6、 If when mounting the motor and assembling the unit, equipment which emits ultrasonic wave is used there is a danger that some of the internal parts of the motor might be damaged so please take care.
- 7、 DON'T store motors under environmental conditions of high temperature and extreme humidity. DON'T keep them also in an atmosphere where corrosive gas may be present, as it may result in malfunction.
- 8、 Ambient and operating temperatures exert an affect more or less on motor performance and life. DO pay particular attention to the surroundings when it is hot and damp.
- 9、 When press fitting a pulley, gear etc., onto the motor output shaft, always support the shaft at the other end or its retaining metal pad in a proper and correct way.
- 10、 When soldering, BE SURE to finish your work quickly so not to develop plastic deformation around the motor terminals nor to give them any forced bend or inward depression. In doing so, special care must and precautionary measures should be taken if necessary, by covering up all the nearby holes and apertures. Any motors having snap—in terminals must also be attended carefully so as not get flux in along the terminals, as it may cause failure in electrical conduction.
- 11、 DON'T leave motor shaft locked while power is applied, as even a short—time lock —up may cause excess heat build up resulting in burning damage to the motor depending on its specifications.
- 12、 Intensive pressure on the endbell boss might cause starting disability of motor. So please take care for motor mounting not to push endbell boss.
- 13、 Please do not touch motor bearing as otherwise bearing oil will be drawn out, which might cause bearing noise."