CE

Stephan

Seephan-Werke GmbH & Co
Germany

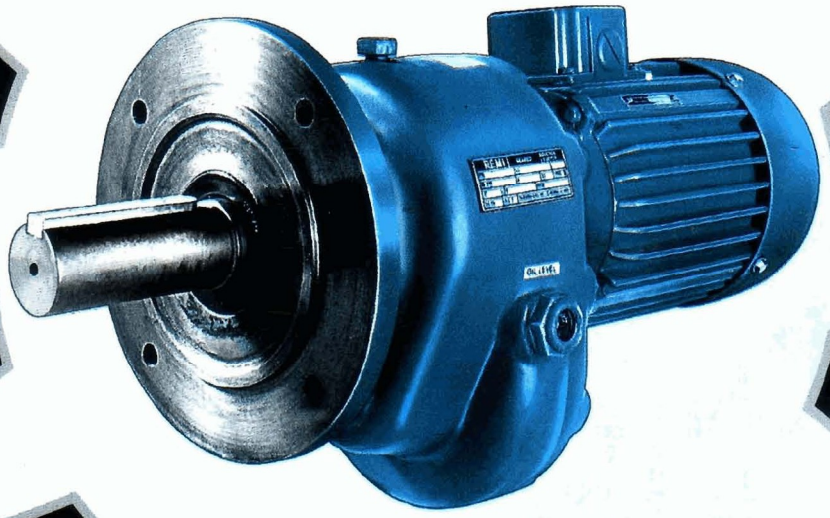
REMI

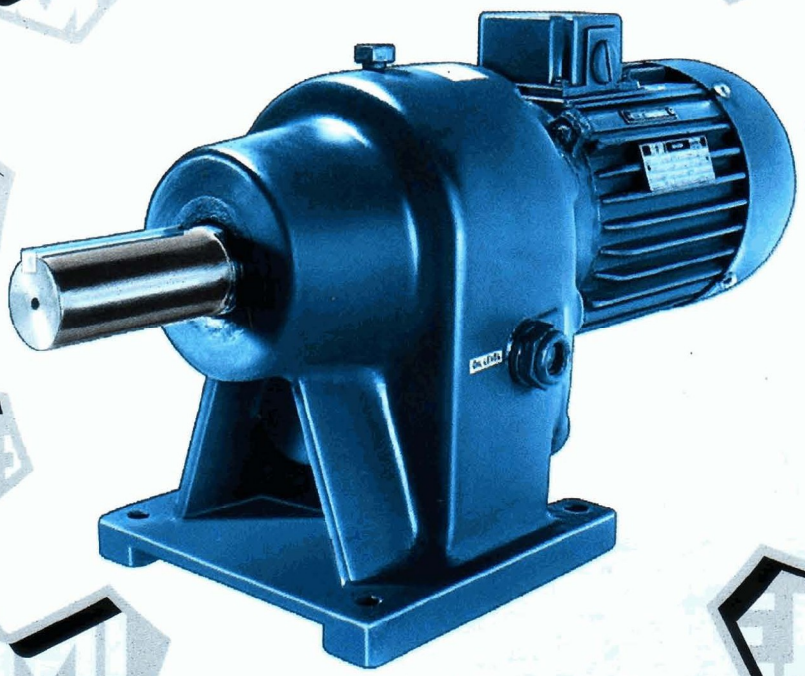
GEARED MOTORS 'NZ' SERIES ENGAGED TO WORK

IS : 325

TÜV CERT
ISO 9001 : 2000
Certificate : 0410019980986
RWTÜV

ISI
For Electric Motors





Why REMI Motors?

- German Technology
- ISO-9001 Company
- Manufactures Own Electric Motors
- Vacuum Impregnation of Winding
- In House Gear manufacturing/ Heat Treatment
- Low Noise & Vibration
- Can offer Non Standard/ Custom Built Special Motors
- Price & Delivery Advantage
- All India Sales & Service Back Up

'NZ' SERIES GEARED MOTORS

REMI has been pioneering manufacturer of helical in line geared motors in India since last 25 years, under license from VEM as well as STEPHAN both of Germany. During this long period, REMI has collected vast amount of field data regarding application of geared motors under Indian conditions. REMI has utilized this data bank to redesign its existing lines of geared motors, resulting in REMI 'NZ' series helical in line geared motors. REMI 'NZ' series geared motors have following advantages -

- Both the bearings of output shaft are located in housing as in "Block" or 'Unicase' housing concept, thereby eliminating chances of misalignment even under high radial loads on the output shaft.
- For extra high radial and/or axial loads reinforced bearings can be provided if specific application demands.
- In the unlikely event of motor winding burn out, wound stator can be easily removed for rewinding without disturbing the Gearbox. Similarly, Gearbox servicing can be carried out without disturbing the motor.
- Higher power to weight ratio due to compact design.

RANGE : REMI 'NZ' series geared motors are offered in exhaustive range with output from 0.12 kW (0.16 HP) to 30 kW (40 HP) and output speed from 1.5 RPM to 500 RPM. The complete series consists of ten sizes of two stage and eight sizes of three stage gear Boxes for 'NZ' series geared motors.

CONSTRUCTIONAL FEATURES : Gear box housing and cover are of high quality graded cast iron and have sturdy internal ribs. Ample dimensions of gear wheels, shafts and ball bearings ensure long life of the gear box. The gear wheels are made of wear-resistant special alloy. They are case hardened by modern hardening process ensuring practically zero distortion during heat treatment. Gear lapping ensures finer high spot removal. Subsequent phosphating improves wear and corrosion resistance properties as also dampens gear noise.

REMI has in-house gear manufacturing, heat treatment facility backed by full fledged machine shop, with state of art CNC machining centres, assembly, testing line and in house electrical motor manufacturing.

EFFICIENCY & NOISE : In todays competitive scenario, equipment designers are under constant pressure to improve the efficiency of the equipment and reduce noise level. REMI 'NZ' series geared motors offer ideal solution to the designers to meet these goals. Due to original German (VEM) design of its electric motor complemented by in house manufacturing of all the motor components together with high efficiency of gears, as a result of modern production methods, it is possible to regard motor output and gearbox output as being practically equal, except in case of motors below 0.5 HP, a slight reduction can be observed. REMI 'NZ' series geared motors have noise levels which are within internationally accepted limits.

ELECTRIC MOTORS : REMI 'NZ' series geared motors are normally offered with electric motors suitable for 415v $\pm$ 10%, 50Hz $\pm$ 5%, ProtectionIP55 and class of Insulation is F. Motors for other operating conditions of voltage, frequency etc. can be offered on request. Motors can also be supplied at additional cost with epoxy encapsulation of winding and epoxy paint to withstand operating environment such as high concentration of corrosive chemical gases and vapors.

SPECIAL VERSIONS : REMI 'NZ' series geared motors can be offered with dual speed, flame proof, brake versions on request. It may be noted that REMI 'NZ' series geared motors are also suitable for operating with inverters for speed variation, however it will be necessary to check with us for right selection of geared motor in case you intend to use with inverter.

SELECTION OF CORRECT SIZE OF GEARED MOTOR : The catalogue shows the rated H.P., R.P.M.& Torque of the geared motor. Also for the same H.P., R.P.M. and Torque different type of motors are offered with different service factor for ease of selection for various application.

Depending on the application, the geared motor with proper service factor should be selected. The service factor for the given application can be calculated as under.

Minimum Service factor required = C1 x C2 x C3

Where : C1 = Coefficient of operating condition.

This depends on type of load, (See Table No.4) duty hours or total number of working hours per day and number of starts & stops hour (See Table No.1) By referring to these two tables the value of C1 can be determined.

C2 = Coefficient of temperature condition.

C2 = 1.0, Where ambient temperature is maximum 40°C. For higher ambient temperatures, select C2 from table No.2.

C3 = Coefficient of mounting site elevation.

C3 = 1.0, if the motor is used at a site with elevation upto 1000 Meters. For higher elevations, select C3 from table No.3.

If the application is special which is not covered in this catalogue or very severe, then please refer to us with complete application details, to enable us to offer a suitable geared motor.

IMPORTANT NOTE : It is very essential to select a proper gear motor for trouble free long life of the motor. In case of difficulty in selection, please refer the matter to us with full application details, instead of selecting a motor ad - hoc or under ignorance. In case of difficulty in selection, please call for our application data sheet. After receipt of duly filled up application data sheet we will select a proper geared motor for you.

In case Geared Motor is to be used for agitator/mixer application, it is strongly recommended that between the agitator shaft and the geared motor shaft supporting stool be provided with thrust bearing so that excess load is not transfered from agitator shaft to motor shaft and the gear box bearing is protected from over loads.

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GEARED MOTORS 'NZ' SERIES ENGAGED TO WORK

TABLE NO.1
SELECTION OF OPERATING FACTOR C1.

	MOTOR STARTING PER HOUR								
	1 TO 6			7 TO 12			13 TO 20		
	DAILY DUTY IN HOURS								
TYPE OF LOAD	0 to 8	9-16	17-24	0 to 8	9-16	17-24	0 to 8	9-16	17-24
1. Uniform operation, no torque surges, small accelerated mass	1.00	1.12	1.25	1.12	1.25	1.40	1.25	1.40	1.60
2. Irregular operation, medium torque surges, medium accelerated mass.	1.25	1.40	1.60	1.40	1.60	1.80	1.60	1.80	2.00
3. Irregular operation, more severe torque surges, heavier accelerated mass.	1.60	1.80	2.00	1.80	2.00	2.24	2.00	2.24	2.50

Note : For more than 20 starts per hour, please refer to us.

TABLE NO. 2
SELECTION OF OPERATING FACTOR C2.

AMBIENT TEMPERATURE IN °C		
0 to 40	40 to 45	45 to 50
1.0	1.08	1.1

TABLE NO. 3
SELECTION OF OPERATING FACTOR C3.

MOUNTING SITE ELEVATION IN METERS ABOVE SEA LEVEL.		
0 to 1000	1000 to 2000	2000 to 3000
1.0	1.05	1.11

TABLE NO. 4
TYPE OF LOAD ACCORDING TO TYPE OF APPLICATION

1. Uniform operation, no torque surges, small accelerated mass.	2. Irregular operation, medium torque surges, medium accelerated mass.	3. Irregular operation, more severe torque surges, heavier accelerated mass.
Drilling machines	Balancing machines	Plates shears
Filling machines	Bending machines	Tumbling barrels
Bottle cleaning and filling machines	Turning lathes	Centrifuges
Flat belt conveyors	Rotary table drives	Proof-presses
Centrifugal pumps	Mixers	Moulding machines (Heavy duty)
Fans	Heavy agitators	Piston Pumps
Assembly belts	Packing machines	Stamping presses
Light-weight mixers	Winches	Paper cutting machines
Light-weight stirrers	Cement mixers	Crushers
Inclined elevators and conveyor belts	Tumbling barrels	Oscillating belt conveyors
Embroidery machines	Kneaders	Calenders & rollers for rubber industry
Machine tool feeds	Canning machines	Foundry machines
Work piece drives	Drives of cranes, crabs and hoists	Folding machines
Washing machine	Freight elevators	Briquetting presses
Constant speed Screw conveyors	Sliding doors	Eccentric presses
Lifting platforms	Slewing drives	Mechanical hammers
valve controls	Brick works machinery	Articulated plate conveyors
Screw conveyors	Moulding machines	Concrete work
Container scales	Mining fans	Rolling mill
Light elevator	Gear & Rotary pumps	Welding rigs
Ventilators	Flour mill / Dal mill	Crushing machines
Roller shutter gates	Brush making machines	Separators
Tube filling machines	Dosing machines	Punching machines
Laundry machines	Rotary kilns	Vibrators
Low capacity lifts	Bucket elevators	Bailing presses
	Furnace doors	
	Tanning barrels	

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PERMISSIBLE LOADS AT THE OUTPUT-SHAFT :

The permissible radial & axial loads for gear boxes with standard bearing or with reinforced bearings on their output shaft are given in table No.5. The figures are based on bearing life of 8000 hrs. at their corresponding speeds and under the provision that radial loads are applied at half the length of the output shaft. Where only radial or only axial loads are transmitted. The shafts can be subjected to the full amount of Fr or Fa given in the table.

For shafts subjected to radial and axial loads at the same time, Fr is to be reduced by the amount of the thrust load. In case, the permissible figures for gears with standard bearing are exceeded, units with reinforced bearings are to be taken. The double row angular contact ball bearing and the cylindrical roller bearing are capable of transmitting higher loads.

With the load figures of the table and following formula, it is possible to find the minimum permissible diameter of gear wheels, sprocket wheels, or belt pulleys.

FOR GEAR WHEELS & SPROCKET WHEELS.

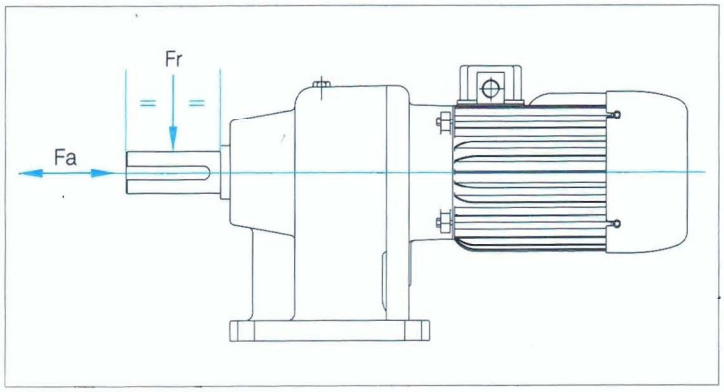
$$Dmin = \frac{2000*M}{Fr}$$

FOR V-BELT PULLEYS.

$$Dmin = \frac{4000*M}{Fr}$$

WHERE :

Dmin = Min. Permissible diam...(mm)
M = Torque to be transmitted...(Nm)
Fr = Permissible radial load at the output shaft... (N)



Tables No. 5 Permissible Radial (Fr) and Axial (Fa) Loads on Output Shaft

Gear Box Type	Speed	Std. Bearing Fr	Std. Bearing Fa	Reinforced Bg. Fr	Reinforced Bg. Fa
NZA	⩽ 17	650	220	--	--
	19 - 29	650	200	-	-
	30 - 49	600	200	-	-
	50 - 80	500	170	-	-
	81 - 145	400	140	-	-
	> 150	300	110	-	-
NZB	⩽ 19	1150	380	2100	750
	20 - 29	1100	350	2050	700
	30 - 53	1050	350	2000	700
	54 - 86	950	320	1600	550
	87 - 135	750	250	1400	500
	> 140	650	220	1300	450
NZO	< 14	1700	560	3200	1150
NZOA	15 - 19	1600	540	3150	1120
	20 - 30	1500	540	3100	1100
	31 - 53	1500	540	3000	1080
	54 - 80	1250	450	2400	860
	85 - 125	1000	360	2000	720
	> 130	760	270	800	650
NZ1	< 18	2900	1000	5250	1900
	19 - 25	2700	960	5150	1860
	26 - 39	2600	930	5100	1830
	40 - 62	2500	900	5000	1800
	63 - 85	2100	760	3800	1360
	90 - 132	1650	600	3200	1150
	> 140	1150	400	2700	970
NZ2	⩽ 14	3500	1200	6300	2300
NZ2B	15 - 19	3300	1150	6200	2250
	20 - 29	3000	1080	6100	2180
	30 - 48	3000	1080	6000	2150
	49 - 75	2500	900	4700	1700
	80 - 130	2000	720	4000	1450
	> 135	1500	540	3500	1250
NZ3	⩽ 14	4000	1400	7300	2650
NZ30	15 - 19	3700	1350	7200	2600
	20 - 29	3500	1300	7100	2550

Gear Box Type	Speed	Std. Bearing Fr	Std. Bearing Fa	Reinforced Bg. Fr	Reinforced Bg. Fa
NZ3	30 - 49	3400	1250	7000	2500
	50 - 80	2700	970	5400	1950
	82 - 135	2200	800	4500	1630
	> 140	1700	620	4000	1430
NZ4	⩽ 14	4500	1650	8400	3050
NZ40	15 - 19	4300	1620	8200	2950
	20 - 29	4100	1580	8100	2880
	30 - 48	4000	1540	8000	2850
	50 - 78	3000	1080	6000	2150
	80 - 120	2500	900	5000	1800
	> 130	2000	720	4500	1600
NZ6	< 13	6600	2200	9700	3700
NZ62	14 - 18.5	6400	2120	9450	3600
	19 - 28	6200	2060	9200	3550
	29 - 50	6000	2000	9000	3500
	52 - 80	5000	1600	8000	3100
	81 - 125	4000	1300	7000	2800
	> 130	3000	1000	6000	2500
NZ7	⩽ 14	7600	2600	10800	4800
NZ73	15 - 19.5	7400	2520	10500	4700
	20 - 29	7200	2450	10200	4600
	30 - 49	7000	2400	10000	4500
	50 - 79	6000	2000	9000	4000
	80 - 122	5000	1650	8000	3500
	> 125	4000	1300	7000	3000
NZ8	⩽ 14	8800	3100	14000	6400
NZ84	15 - 20	8500	3000	13600	6250
	21 - 30	8300	2900	13300	6100
	31 - 50	8000	2800	13000	6000
	51 - 75	7000	2400	11000	5000
	76 - 114	6000	2000	9500	4500
	> 115	5000	1500	8500	4000
NZ10	⩽ 50	50000	-	-	-
	51 - 80	40000	-	-	-
	> 80	35000	-	-	-

LUBRICATION :

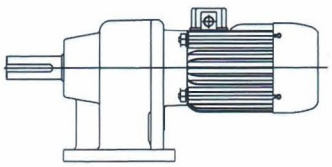
Gears are splash lubricated by oil. It may be noted that **Geared motors are delivered without oil and before starting oil must be filled up to oil level indicator.**

First oil change must be done after operating 400 hours. Consequent oil changes after every 5000 hours of operation are recommended.

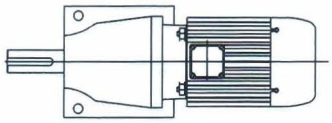
RECOMMENDED OIL GRADES BASED ON AMBIENT TEMPERATURE OF 10-45°C :				
Output RPM	Oil Grade	Indian Oil	Hindustan Petroleum	Bharat Petroleum
>225	ISO VG 150	SERVOMESH SP 150	PARTHAN EP 150	AMOCAM 150
225-25	ISO VG 220	SERVOMESH SP 220	PARTHAN EP 220	AMOCAM 220
25-5	ISO VG 320	SERVOMESH SP 320	PARTHAN EP 320	AMOCAM 320
<5	ISO VG 460	SERVOMESH SP 460	PARTHAN EP 460	AMOCAM 460

MOUNTING POSITIONS

Position of Oil level indicator, Breathing Plug and Drain plug change depending on mounting position. It is therefore very important to specify mounting position as per chart given below at the time of ordering. In absence of any indication at the time of ordering, it will be presumed that mounting is B3 for foot mounted and B5 for flange mounted.



B3



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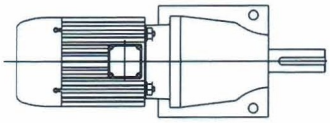

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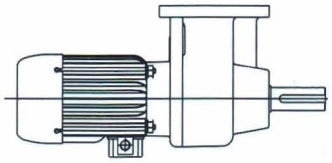
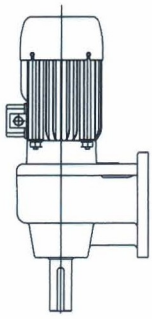
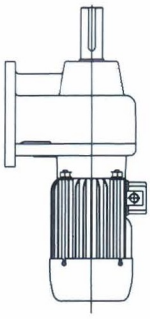


B8



V5



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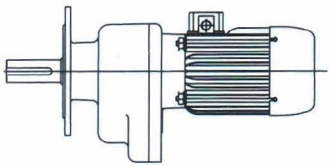
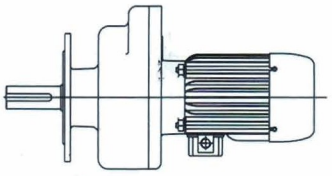
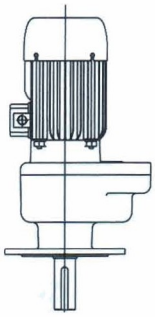


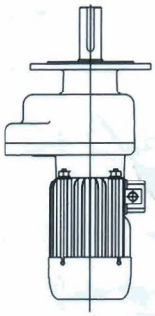
B5



B5a



V1



V3

REMI 'NZ' SERIES GEARED MOTOR RATING CHART

MOTOR k.W (H.P.)	OUTPUT R.P.M.	GEARED MOTOR FRAME SIZE	OUTPUT TORQUE (Nm)	SERVICE FACTOR AGMA I	AGMA II	AGMA III
0.18 (0.25)	317	NZA 63M-4	4.7	--	--	2.4
	360	NZA 63M-4	4.1	--	--	2.4
0.25 (0.33)	1.4	NZ62 80M-8	1540	1.1	--	--
	1.5	NZ73 80M-8	1403	--	1.6	--
	3.4	NZ30 71S-4	622	1.0	--	--
	3.3	NZ40 71S-4	638	--	1.4	--
	4.5	NZ30 71S-4	467	1.3	--	--
	4.4	NZ40 71S-4	475	--	1.7	--
	5.3	NZ2B 71S-4	405	1.1	--	--
	5.1	NZ40 71S-4	410	--	1.8	--
	7.8	NZ2B 71S-4	274	1.3	--	--
	7.4	NZ30 71S-4	283	--	1.8	--
	7.4	NZ40 71S-4	279	--	--	2.4
	8.8	NZ2B 71S-4	243	1.3	--	--
	8.2	NZ30 71S-4	255	--	1.8	--
	8.4	NZ40 71S-4	247	--	--	2.4
	10	NZ2B 71S-4	204	--	1.5	--
	10	NZ30 71S-4	204	--	--	3.0
	17	NZ0 80M-8	132	1.3	--	--
	16	NZ2 80M-8	138	--	--	3.3
	20	NZ0 80S-6A	112	--	1.5	--
	20	NZ2 80S-6A	112	--	--	3.9
	26	NZB 80S-6A	87.0	1.0	--	--
	26	NZ0 80S-6A	87.0	--	--	2.0
	31	NZB 71S-4	72.0	1.0	--	--
	31	NZ0 71S-4	72.0	--	--	2.3
	35	NZB 71S-4	62.0	1.0	--	--
	35	NZ0 71S-4	62.0	--	--	2.5
	40	NZB 71S-4	55.0	1.2	--	--
	40	NZ0 71S-4	55.0	--	--	2.7
	45	NZB 71S-4	49.0	1.2	--	--
	45	NZ0 71S-4	49.0	--	--	2.9
	50	NZB 71S-4	44.0	1.2	--	--
	50	NZ0 71S-4	44.0	--	--	3.2
	54	NZB 71S-4	41.4	--	1.4	--
	54	NZ0 71-S4	41.4	--	--	3.4
	64	NZA 71S-4	34.7	1.0	--	--
	61	NZB 71S-4	36.6	--	1.5	--
	61	NZ0 71S-4	36.6	--	--	3.5
	71	NZA 71S-4	31.2	1.0	--	--
	68	NZB 71S-4	32.9	--	1.5	--
	68	NZ0 71S-4	32.9	--	--	3.6
	78	NZA 71S-4	28.5	1.0	--	--
	76	NZB 71S-4	29.3	--	1.6	--
	76	NZ0 71S-4	29.3	--	--	3.8
	82	NZA 71S-4	27.0	1.0	--	--
	84	NZB 71S-4	26.6	--	1.7	--
	86	NZ0 71S-4	25.6	--	--	4.3
	90	NZA 71S-4	24.6	1.0	--	--
	88	NZB 71S-4	25.4	--	1.8	--
	99	NZA 71S-4	22.3	1.0	--	--
	97	NZB 71S-4	23.0	--	--	2.0
	108	NZA 71S-4	20.5	1.0	--	--
	107	NZB 71S-4	20.7	--	--	2.0
	118	NZA 71S-4	18.8	1.0	--	--
	118	NZB 71S-4	18.8	--	--	2.1
	129	NZA 71S-4	17.2	1.1	--	--
	129	NZB 71S-4	17.2	--	--	2.2
	139	NZA 71S-4	16.0	1.1	--	--
	142	NZB 71S-4	15.6	--	--	2.7

MOTOR k.W (H.P.)	OUTPUT R.P.M.	GEARED MOTOR FRAME SIZE	OUTPUT TORQUE (Nm)	SERVICE FACTOR AGMA I	AGMA II	AGMA III
0.25 (0.33)	153	NZA 71S-4	14.0	1.3	--	--
	153	NZB 71S-4	14.0	--	--	2.9
	169	NZA 71S-4	12.7	--	1.4	--
	171	NZB 71S-4	12.6	--	--	2.9
	185	NZA 71S-4	11.7	--	1.4	--
	188	NZB 71S-4	11.4	--	--	3.1
	202	NZA 71S-4	10.6	--	1.5	--
	205	NZB 71S-4	10.4	--	--	3.2
	219	NZA 71S-4	9.8	--	1.5	--
	226	NZB 71S-4	9.5	--	--	3.2
	238	NZA 71S-4	9.8	--	1.6	--
	247	NZB 71S-4	8.7	--	--	3.4
	278	NZA 71S-4	7.7	--	1.7	--
	267	NZB 71S-4	8.1	--	--	3.4
	290	NZB 71S-4	7.4	--	--	3.5
	325	NZA 71S-4	6.7	--	1.7	--
	342	NZB 71S-4	6.4	--	--	3.8
	371	NZA 71S-4	5.6	--	1.8	--
	393	NZB 71S-4	5.4	--	--	3.9
0.37 (0.5)	1.5	NZ73 90S2-8	2138	1.1	--	--
	3.3	NZ40 71M-4	971	1.0	--	--
	3.3	NZ62 80S-6	971	--	1.7	--
	4.6	NZ30 71M-4	696	1.0	--	--
	4.5	NZ40 71M-4	706	--	1.4	--
	5.2	NZ30 71M-4	514	1.0	--	--
	5.2	NZ40 71M-4	514	--	1.4	--
	7.4	NZ30 71M-4	426	1.2	--	--
	7.5	NZ40 71M-4	422	--	1.6	--
	8.8	NZ2B 71M-4	365	1.0	--	--
	8.4	NZ40 71M-4	327	--	1.6	--
	10	NZ2B 71M-4	309	1.0	--	--
	10	NZ30 71M-4	309	--	1.9	--
	10	NZ40 71M-4	309	--	--	2.7
	17	NZ0 90S2-8	196	1.0	--	--
	16	NZ2 90S2-8	204	--	--	2.2
	20	NZ0 80S-6	167	1.0	--	--
	20	NZ2 80S-6	167	--	--	2.7
	26	NZ0 80S-6	128	1.3	--	--
	26	NZ1 80S-6	128	--	1.8	--
	25	NZ2 80S-6	132	--	--	3.4
	31	NZ0 71M-4	106	--	1.6	--
	31	NZ1 80S-6	106	--	--	2.2
	35	NZ0 71M-4	94.0	--	1.7	--
	40	NZB 71M-4	82.0	1.0	--	--
	40	NZ0 71M-4	82.0	--	1.8	--
	40	NZ1 71M-4	82.0	--	--	2.9
	45	NZB 71M-4	73.0	1.0	--	--
	45	NZ0 71M-4	73.0	--	1.9	--
	46	NZ1 71M-4	70.0	--	--	3.1
	51	NZB 71M-4	65.0	1.0	--	--
	51	NZ0 71M-4	65.0	--	--	2.2
	55	NZB 71M-4	60.7	1.0	--	--
	54	NZ0 71M-4	61.0	--	--	2.3
	62	NZB 71M-4	53.8	1.0	--	--
	61	NZ0 71M-4	54.0	--	--	2.4
	69	NZB 71M-4	48.3	1.0	--	--
	68	NZ0 71M-4	48.5	--	--	2.5
	76	NZB 71M-4	43.8	1.1	--	--
	76	NZ0 71M-4	43.8	--	--	2.6
	88	NZB 71M-4	38.0	1.3	--	--

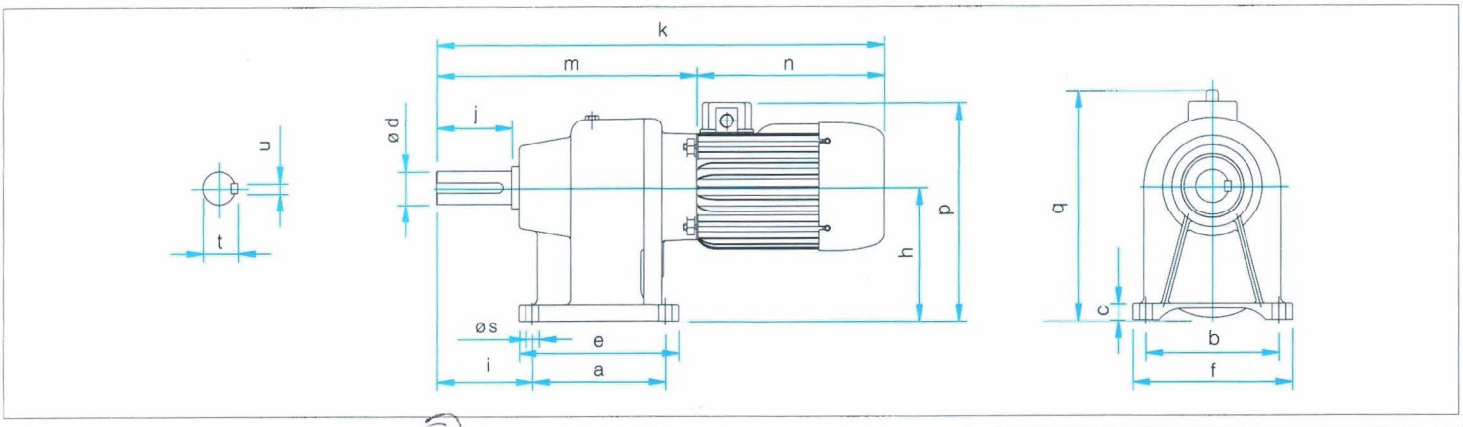
REMI

REMI 'NZ' SERIES GEARED MOTOR RATING CHART

MOTOR k.W (H.P.)	OUTPUT R.P.M.	GEARED MOTOR FRAME SIZE	OUTPUT TORQUE (Nm)	SERVICE FACTOR AGMA I	AGMA II	AGMA III
0.37 (0.5)	87	NZ0 71M-4	38.2	--	--	2.6
	98	NZB 71M-4	34.0	1.3	--	--
	97	NZ0 71M-4	34.2	--	--	3.0
	108	NZB 71M-4	30.9	--	1.4	--
	108	NZ0 71M-4	30.9	--	--	3.2
	117	NZA 71M-4	30.0	1.0	--	--
	119	NZB 71M-4	28.0	--	1.4	--
	119	NZ0 71M-4	28.0	--	--	3.4
	130	NZA 71M-4	25.6	1.0	--	--
	130	NZB 71M-4	25.6	--	1.5	--
	140	NZA 71M-4	23.7	1.0	--	--
	143	NZB 71M-4	22.8	--	1.8	--
	159	NZA 71M-4	21.0	1.0	--	--
	159	NZB 71M-4	21.0	--	--	2.0
	175	NZA 71M-4	19.0	1.0	--	--
	177	NZB 71M-4	18.9	--	--	2.0
	191	NZA 71M-4	17.5	1.0	--	--
	195	NZB 71M-4	17.2	--	--	2.1
	209	NZA 71M-4	15.9	1.0	-	--
	214	NZB 71M-4	15.5	--	--	2.2
	227	NZA 71M-4	14.6	1.0	--	--
	234	NZB 71M-4	14.1	--	--	2.2
	246	NZA 71M-4	13.5	1.1	--	--
	256	NZB 71M-4	13.0	--	--	2.3
	277	NZB 71M-4	12.0	--	--	2.3
	288	NZA 71M-4	11.5	1.1	--	--
	300	NZB 71M-4	11.0	--	--	2.4
	335	NZA 71M-4	9.9	1.1	--	--
	350	NZB 71M-4	9.5	--	--	2.6
	379	NZA 71M-4	8.5	1.1	--	--
	400	NZB 71M-4	8.0	--	--	2.6
0.55 (0.75)	3.4	NZ62 80S-4	1393	1.1	--	--
	3.5	NZ73 80S-4	1334	--	1.6	--
	4.5	NZ40 80S-4	1069	1.0	--	--
	4.6	NZ62 80S-4	1030	--	1.4	--
	4.7	NZ73 80S-4	991	--	--	2.1
	5.2	NZ40 80S-4	930	1.0	--	--
	5.0	NZ62 80S-4	947	--	1.7	--
	5.3	NZ73 80S-4	873	--	--	2.6
	7.5	NZ30 80S-4	638	1.0	--	--
	7.4	NZ62 80S-4	637	--	1.8	--
	7.6	NZ73 80S-4	608	--	--	2.8
	8.4	NZ30 80S-4	576	1.0	--	--
	8.3	NZ62 80S-4	569	--	1.8	--
	8.4	NZ73 80S-4	549	--	--	2.8
	10	NZ30 80S-4	460	1.3	--	--
	10	NZ40 80S-4	460	--	1.8	--
	10	NZ62 80S-4	460	--	--	3.0
	16	NZ2 90L-8	325	--	1.5	--
	16	NZ3 90L-8	325	--	--	2.1
	20	NZ2 80M-6	270	--	1.8	--
	20	NZ3 80M-6	270	--	--	2.8
	26	NZ0 80M-6	202	1.0	--	--
	26	NZ1 80M-6	202	--	1.4	--
	25	NZ2 80M-6	212	--	--	2.3
	31	NZ0 80S-4	169	1.0	--	--
	30	NZ2 80S-4	174	--	--	2.7
	36	NZ0 80S-4	146	1.2	--	--
	34	NZ2 80S-4	154	--	--	2.9
	41	NZ0 80S-4	127	1.3	--	--

MOTOR k.W (H.P.)	OUTPUT R.P.M.	GEARED MOTOR FRAME SIZE	OUTPUT TORQUE (Nm)	SERVICE FACTOR AGMA I	AGMA II	AGMA III
0.55 (0.75)	41	NZ1 80S-4	127	--	1.9	--
	39	NZ2 80S-4	136	--	--	3.2
	46	NZ0 80S-4	114	1.3	--	--
	47	NZ1 80S-4	112	--	--	2.1
	52	NZ0 80S-4	101	--	1.4	--
	53	NZ1 80S-4	99.0	--	--	2.3
	55	NZ0 80S-4	95.6	--	1.6	--
	60	NZ1 80S-4	87.6	--	--	2.4
	63	NZB 80S-4	83.3	1.0	--	--
	62	NZ0 80S-4	85.0	--	1.6	--
	63	NZ1 80S-4	83.3	--	--	2.5
	70	NZB 80S-4	75.0	1.0	--	--
	70	NZ0 80S-4	75.0	--	1.7	--
	72	NZ1 80S-4	73.0	--	--	2.6
	78	NZB 80S-4	64.5	1.0	--	--
	78	NZ0 80S-4	64.5	--	1.8	--
	81	NZ1 80S-4	65.0	--	--	2.8
	90	NZB 80S-4	58.0	1.0	--	--
	89	NZ0 80S-4	59.1	--	1.9	--
	92	NZ1 80S-4	57.2	--	--	3.1
	100	NZB 80S-4	52.5	1.0	--	--
	99	NZ0 80S-4	53.0	--	--	2.1
	110	NZB 80S-4	47.7	1.0	--	--
	110	NZ0 80S-4	47.7	--	--	2.1
	121	NZB 80S-4	43.4	1.1	--	--
	121	NZ0 80S-4	43.4	--	--	2.3
	145	NZB 80S-4	36.3	1.2	--	--
	141	NZ0 80S-4	37.2	--	--	2.8
	162	NZB 80S-4	32.3	1.3	--	--
	157	NZ0 80S-4	33.4	--	--	2.9
	179	NZB 80S-4	29.3	1.3	--	
	174	NZ0 80S-4	30.2	--	--	3.0
	198	NZB 80S-4	26.5	--	1.4	--
	193	NZ0 80S-4	27.0	--	--	3.1
	217	NZB 80S-4	24.2	--	1.4	--
	216	NZ0 80S-4	24.3	--	--	3.5
	237	NZB 80S-4	22.0	--	1.5	--
	259	NZB 80S-4	20.3	--	1.5	--
	256	NZ0 80S-4	20.5	--	--	3.5
	281	NZB 80S-4	18.7	--	1.6	--
	304	NZB 80S-4	17.2	--	1.6	--
	306	NZ0 80S-4	17.1	--	--	3.8
	356	NZB 80S-4	14.8	--	1.7	--
	360	NZ0 80S-4	14.5	--	--	4.0
	415	NZB 80S-4	12.6	--	1.8	--
	428	NZ0 80S-4	12.2	--	--	4.2
0.75 (1.0)	3.5	NZ73 90S2-6	1854	1.1	--	--
	3.4	NZ84 90S2-6	1923	--	1.4	--
	4.6	NZ62 80M-4	1422	1.0	--	--
	4.7	NZ73 80M-4	1373	--	1.6	--
	5.0	NZ62 80M-4	1305	1.3	--	--
	5.3	NZ73 80M-4	1216	--	1.9	--
	7.6	NZ40 80M-4	877	1.0	--	--
	7.4	NZ62 80M-4	883	--	1.4	--
	7.6	NZ73 80M-4	843	--	--	2.1
	8.6	NZ40 80M-4	775	1.0	--	--
	8.3	NZ62 80M-4	785	--	1.5	--
	8.4	NZ73 80M-4	765	--	--	2.2
	10	NZ30 80M-4	637	1.0	--	--
	10	NZ40 80M-4	637	--	1.4	--

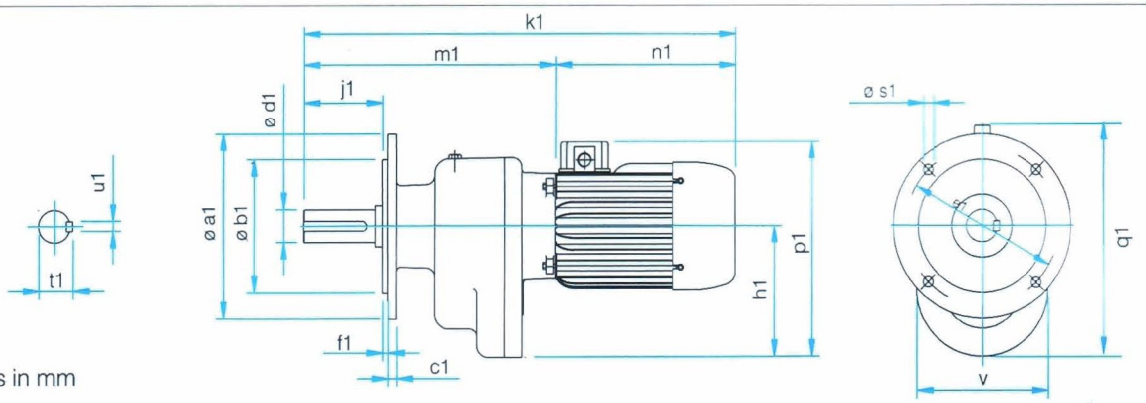
Dimensions of Two Stage Foot Mounted Geared Motors



G.M.	SIZE	a	b	c	d	e	f	h	i	j	k	m	n	p	q	s	t	u
NZA	63S										316	164	152	165				
NZA	63M	80	90	12	14	102	112	80	44	30	330	164	166	165	–	9.5	16	5
NZA	71S										328	166	162	180				
NZA	71M										349	166	183	180				
NZB	63S										338	186	152	185				
NZB	63M										352	186	166	185				
NZB	71S	90	100	14	19	114	124	100	55	40	353	191	162	200	–	9.5	21.5	6
NZB	71M										374	191	183	200				
NZB	80S										400	204	196	208				
NZB	80M										420	204	216	208				
NZ0	63S										387	235	152	205				
NZ0	63M										401	235	166	205				
NZ0	71S										404	242	162	220				
NZ0	71M	120	120	20	24	144	144	120	68	50	425	242	183	220	–	11.5	27	8
NZ0	80S										442	246	196	228				
NZ0	80M										462	246	216	228				
NZ0	90S2										485	251	234	234				
NZ0	90L										510	251	259	234				
NZ1	71M										461	278	183	240				
NZ1	80S										485	289	196	248				
NZ1	80M	150	150	20	34	180	180	140	90	70	505	289	216	248	–	14.0	37	10
NZ1	90S2										530	296	234	254				
NZ1	90L										555	296	259	254				
NZ1	100L2										575	307	268	263				
NZ2	80S										493	297	196	268				
NZ2	80M										513	297	216	268				
NZ2	90S2	160	160	20	38	192	192	160	103	80	533	299	234	274	–	14.0	41	12
NZ2	90L										558	299	259	274				
NZ2	100L2										572	304	268	283				
NZ2	112M										640	323	317	294				
NZ3	80S										527	331	196	288				
NZ3	80M										547	331	216	288				
NZ3	90S2										569	335	234	294				
NZ3	90L										594	335	259	294				
NZ3	100L2	180	180	22	44	216	216	180	112.5	90	603	335	268	303	330	18.0	47.5	14
NZ3	100L										635	335	300	303				
NZ3	112M										677	360	317	314				
NZ3	132S										708	386	322	356				
NZ3	132M										746	386	360	356				
NZ4	90S2										598	364	234	314				
NZ4	90L										623	364	259	314				
NZ4	100L2										637	369	268	323				
NZ4	100L	200	200	30	48	240	240	200	124.5	100	669	369	300	323	360	18.0	51.5	14
NZ4	112M										691	374	317	334				
NZ4	132S										732	410	322	376				
NZ4	132M										770	410	360	376				
NZ6	100L2										708	440	268	–				
NZ6	112M										768	451	317	–				
NZ6	132S	240	240	30	58	290	290	240	150	120	781	459	322	–	420	18.0	62	18
NZ6	132M										819	459	360	–				
NZ6	160M										886	475	411	450				
NZ6	160L										936	475	461	450				
NZ7	112M										832	515	317	–				
NZ7	132S										849	527	322	–				
NZ7	132M										887	527	360	–				
NZ7	160M1	280	280	35	68	335	335	280	172	140	886	507	379	–	489	20	73	20
NZ7	160M										918	507	411	–				
NZ7	160L										968	507	461	–				
NZ7	180M										1004	527	477	504				
NZ7	180L										1069	527	542	504				
NZ8	132S										907	585	322	–				
NZ8	132M										945	585	360	–				
NZ8	160M1										971	592	379	–				
NZ8	160M	320	320	40	78	380	380	320	205.5	160	1003	592	411	–	560	22	83	22
NZ8	160L										1053	592	461	–				
NZ8	180M										1075	598	477	–				
NZ8	180L										1140	598	542	–				

REMI

Dimensions of Two Stage Flange Mounted Geared Motors



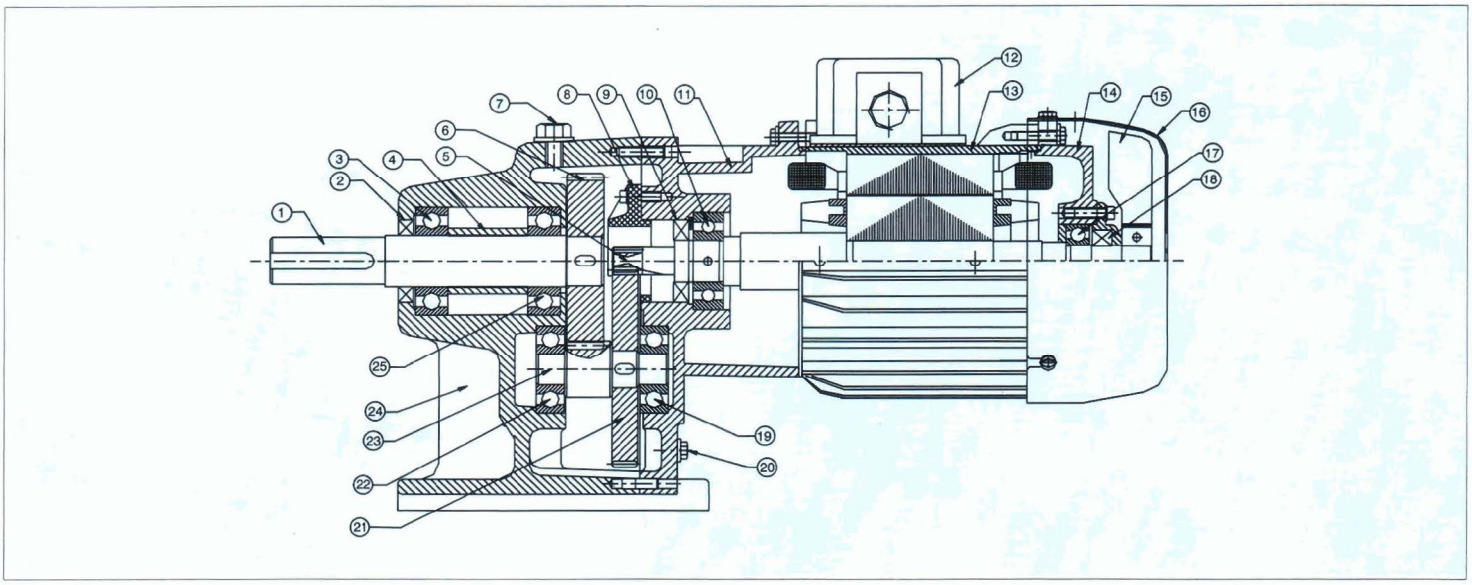
All Dimensions in mm

G.M.	SIZE	d1	h1	j1	k1	m1	n1	p1	q1	t1	u1	v	a1	b1	c1	e1	f1	s1
NZA	63S				316	164	152	164										
NZA	63M	14	79	32	330	164	166	164	—	16	5	90	120	80	8	100	3	7
NZA	71S				328	166	162	179										
NZA	71M				349	166	183	179										
NZB	63S				338	186	152	183										
NZB	63M				352	186	166	183										
NZB	71S	19	98	42	353	191	162	198	—	21.5	6	106	140	95	10	115	3	9.5
NZB	71M				374	191	183	198										
NZB	80S				400	204	196	206										
NZB	80M				420	204	216	206										
NZ0	63S				387	235	152	198										
NZ0	63M				401	235	166	198										
NZ0	71S				404	242	162	213										
NZ0	71M	24	113	55	425	242	183	213	—	27	8	120	160	110	10	130	3.5	9.5
NZ0	80S				442	246	196	221										
NZ0	80M				462	246	216	221										
NZ0	90S2				485	251	234	227										
NZ0	90L				510	251	259	227										
NZ1	71M				461	278	183	235										
NZ1	80S				485	289	196	243										
NZ1	80M	34	135	75	505	289	216	243	—	37	10	145	160	110	12	130	3.5	9.5
NZ1	90S2				530	296	234	249										
NZ1	90L				555	296	259	249										
NZ1	100L2				575	307	268	258										
NZ2	80S				493	297	196	260										
NZ2	80M				513	297	216	260										
NZ2	90S2	38	152	86.5	533	299	234	266	—	41	12	163	200	130	12	165	3.5	11.5
NZ2	90L				558	299	259	266										
NZ2	100L2				572	304	268	275										
NZ2	112M				640	323	317	286										
NZ3	80S				527	331	196	285										
NZ3	80M				547	331	216	285										
NZ3	90S2				569	335	234	291										
NZ3	90L				594	335	259	291										
NZ3	100L2	44	177	94	603	335	268	300	330	47.5	14	185	250	180	12	215	4	14
NZ3	100L				635	335	300	300										
NZ3	112M				677	360	317	311										
NZ3	132S				708	386	322	353										
NZ3	132M				746	386	360	353										
NZ4	90S2				598	364	234	309										
NZ4	90L				623	364	259	309	360									
NZ4	100L2				637	369	268	318										
NZ4	100L	48	195	104	669	369	300	318		51.5	14	203	300	230	16	265	4	14
NZ4	112M				691	374	317	329										
NZ4	132S				732	410	322	371										
NZ4	132M				770	410	360	371										
NZ6	100L2				708	440	268	—										
NZ6	112M				768	451	317	—	420									
NZ6	132S	58	230	125	781	459	322	—	—	62	18	243	350	250	20	300	4	18
NZ6	132M				819	459	360	—										
NZ6	160M				886	475	411	450										
NZ6	160L				936	475	461	450										
NZ7	112M				832	515	317	—										
NZ7	132S				849	527	322	—										
NZ7	132M				887	527	360	—										
NZ7	160M1	68	270	144	886	507	379	—	489	73	20	284	350	250	24	300	5	18
NZ7	160M				918	507	411	—	—									
NZ7	160L				968	507	461	—										
NZ7	180M				1004	527	477	504										
NZ7	180L				1069	527	542	504										
NZ8	132S				907	585	322	—										
NZ8	132M				945	585	360	—										
NZ8	160M1				971	592	379	—										
NZ8	160M	78	308	167	1003	592	411	—	560	83	22	323	350	250	24	300	5	18
NZ8	160L				1053	592	461	—										
NZ8	180M				1075	598	477	—										
NZ8	180L				1140	598	542	—										

SPARES :

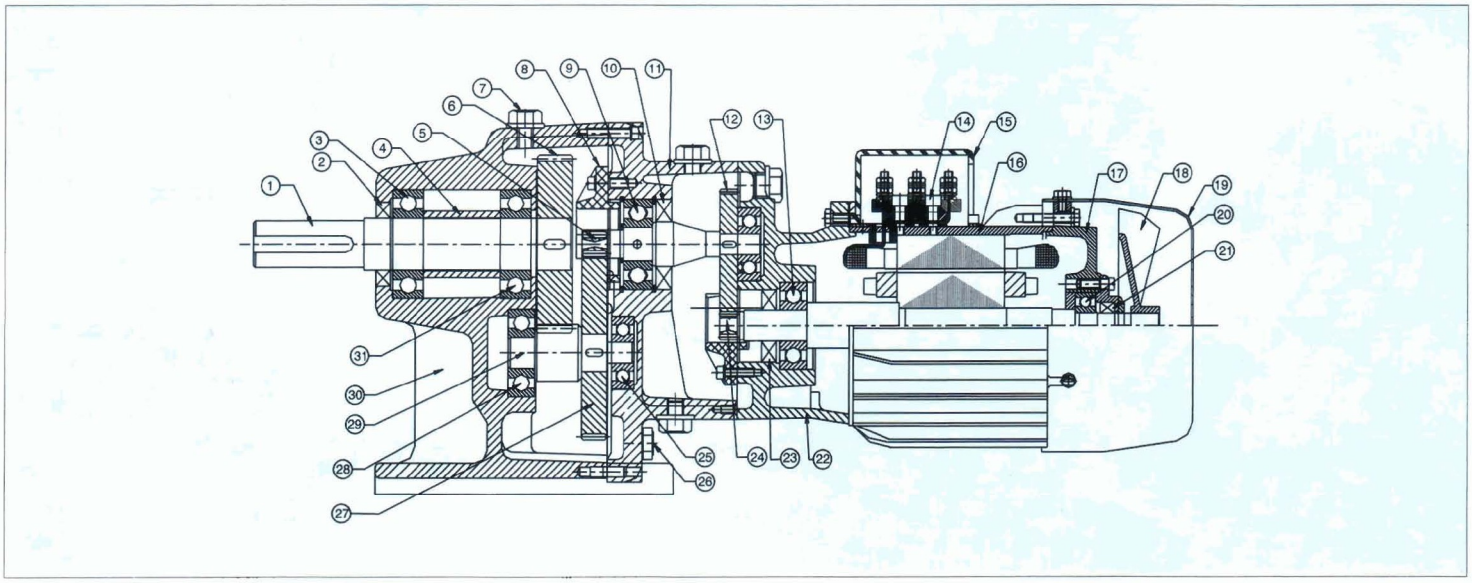
Ensure to give complete details of data available on the name plate when ordering the spares.
To ensure correct supplies give correct nomenclature of the part and the part number shown in illustrations, below.

NZ Series Two Stage Geared Motor Sectional View



1. OUT PUT SHAFT
2. OIL SEAL
3. BALL BEARING
4. SPACER SLEEVE
5. TOOTHED SHAFT/PINION WHEEL
6. OUT PUT WHEEL
7. BREATHER PLUG
8. SUPPORTING COLLAR
9. OIL SEAL
10. BALL BEARING
11. COVER
12. TERMINAL BOX
13. CASING
14. END SHIELD
15. FAN BLADE
16. FAN COWL
17. BALL BEARING
18. OIL SEAL
20. DRAIN PLUG
21. INTERMEDIATE WHEEL
22. BALL BEARING
23. INTERMEDIATE SHAFT
24. FOOT (FLANGE) MOUNTED HOUSING
25. BALL BEARING

NZ Series Three Stage Geared Motor Sectional View



1. OUTPUT SHAFT
2. OIL SEAL
3. BALL BEARING
4. SPACER SLEEVE
5. II STAGE INPUT PINION
6. OUTPUT WHEEL
7. BREATHER PLUG
8. SUPPORTING COLLAR
9. BALL BEARING
10. OIL SEAL
11. COMBINATION COVER
12. I STAGE INERMEDIATE WHEEL
13. BALL BEARING
14. TERMINAL BLOCK
15. TERMINAL BOX
16. CASING
17. END SHIELD
18. FAN BLADE
19. FAN COWL
20. BALL BEARING
21. OIL SEAL
22. COVER
23. OIL SEAL
24. TOOTHED SHAFT
25. BALL BEARING
26. DRAIN PLUG
27. II STAGE INTERMEDIATE WHEEL
28. BALL BEARING
29. III STAGE INTERMEDIATE SHAFT
30. FOOT (FLANGE) MOUNTED HOUSING
31. BALL BEARING