

### P535 - series Geared Stepper Motors

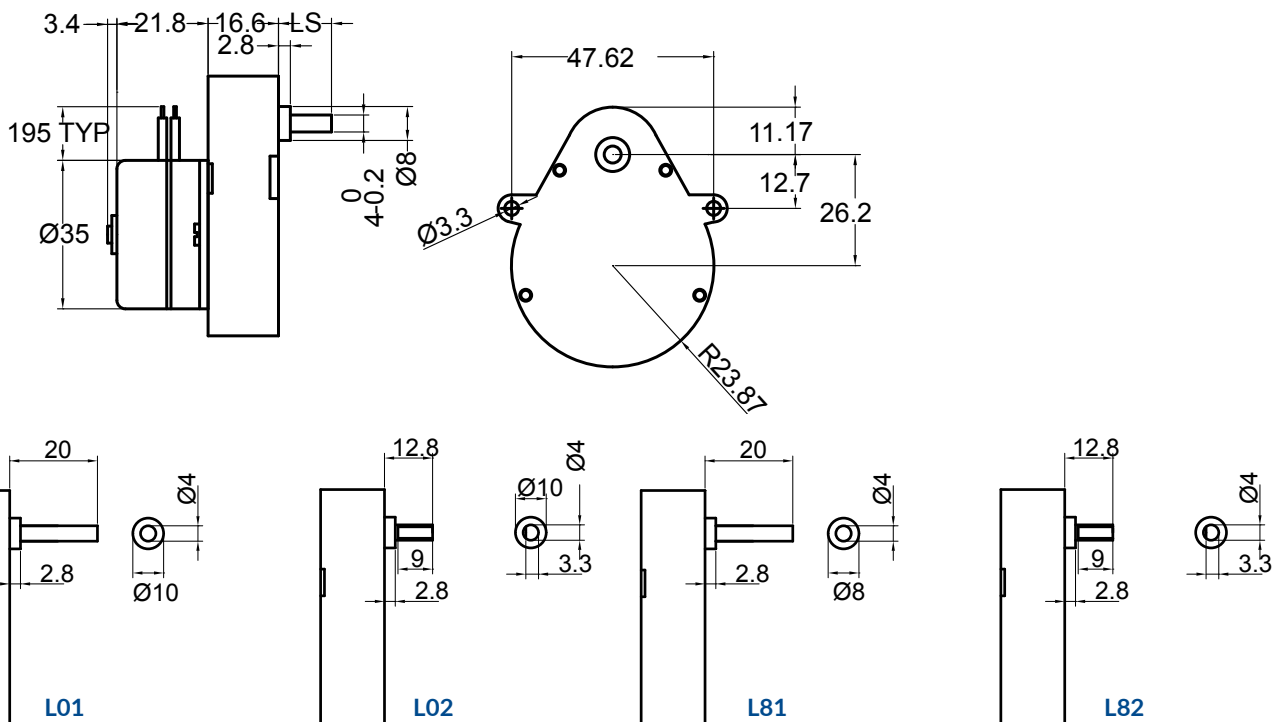
The P535 series provides a combination of optimum size and price for use in instrumentation applications that require digital control of position and speed.

Features include:

- High performance permanent magnet stepper motor
- Both Uni-polar and Bi-polar motor types.
- Precision ovoid gear head incorporating metal gears for optimum torque transmission
- Wide range of standard gear ratio options from stock
- Choice of output shaft options
- Special shaft and gear ratios to meet customer special requirements



#### Outline dimensions (mm)



#### Shaft Length LS

L01 Option Type: Plain/Length:20mm/Spigot:10mm

L02 Option Type: Flat/length:12.8mm/Flat Length:9mm/Spigot:10mm

L81 Option Type: Plain / Length: 20mm

L82 Option Type: With Flat / Length: 12.80mm / Flat Length: 9mm



## P535-L48 Uni-Polar Geared Stepper Motor

### L48 xx motor specifications

Standard motor versions		P535-L48 1U	P535-L48 2U	Step rate @ typical working torque L/R : 200 Hz L/4R: 450 Hz
Number of phases		4	4	
Rated voltage ( L/R Drive)	V	5	12	
Current per phase	mA	450	180	
Resistance per phase	Ohm	11	64	
Inductance per phase	mH	78	40	

### P535-L48 series Geared Stepper Motor motor specification and part numbers

Geared Stepper Motor	Ratio	Steps per rev at Output	Holding Torque Ncm	Maximum Continuous Torque Ncm*	Efficiency
P535-L48 -G01....	25:6	200	12	20	80
-G03	25:4	300	18	25	80
-G04	25:3	400	23	35	80
-G05	10:1	480	28	40	70
-G06	25:2	600	35	45	70
-G08	50:3	800	47	60	70
-G09	20:1	960	56	65	70
-G11	25:1	1200	70	70	70
-G14	100:3	1600	75	75	70
-G16	125:3	2000	80	80	70
-G17	50:1	2400	80	80	70
-G19	125:2	3000	80	80	65
-G21	250:3	4000	80	80	65
-G23	125:1	6000	80	80	65
-G27	250:1	12000	80	80	65
-G34	500:1	24000	85	85	58
-G41	1250:1	60000	90	90	58
-G62	1500:1	720000	100	100	43

\* Maximum rating of gearbox



## P535-L48 Bi-Polar Geared Stepper Motor

### L48 xx motor specifications

Standard motor versions		P535-L48 1B	P535-L48 2B	Step rate @ typical working torque L/R : 200 Hz L/4R: 450 Hz
Number of phases		2	2	
Rated voltage	V	5	12	
Current per phase	mA	450	180	
Resistance per phase	Ohm	11	64	
Inductance per phase	mH	15	72	

### P535-L48 series Geared Stepper Motor motor specification and part numbers

Geared Stepper Motor	Ratio	Steps per rev at Output	Holding Torque Ncm	Maximum Continuous Torque Ncm*	Efficiency
P535-L48 -G01....	25:6	200	10	20	80
-G03	25:4	300	16	25	80
-G04	25:3	400	21	35	80
-G05	10:1	480	25	40	70
-G06	25:2	600	31	45	70
-G08	50:3	800	42	60	70
-G09	20:1	960	50	65	70
-G11	25:1	1200	63	70	70
-G14	100:3	1600	75	75	70
-G16	125:3	2000	80	80	70
-G17	50:1	2400	80	80	70
-G19	125:2	3000	80	80	65
-G21	250:3	4000	80	80	65
-G23	125:1	6000	80	80	65
-G27	250:1	12000	80	80	65
-G34	500:1	24000	85	85	58
-G41	1250:1	60000	90	90	58
-G62	1500:1	720000	100	100	43

\* Maximum rating of gearbox



## P535-M48 Uni-Polar Geared Stepper Motor

### M48 xx motor specifications

Standard motor versions		P535-M48 1U	P535-M48 2U	Step rate @ typical working torque L/R : 200 Hz L/4R: 450 Hz
Number of phases		4	4	
Rated voltage ( L/R Drive)	V	5	12	
Current per phase	mA	400	160	
Resistance per phase	Ohm	12.5	72	
Inductance per phase	mH	7.8	76	

### P535-M48 series Geared Stepper Motor motor specification and part numbers

Geared Stepper Motor	Ratio	Steps per rev at Output	Holding Torque Ncm	Maximum Continuous Torque Ncm*	Efficiency
P535-M48 -G01....	25:6	200	8	20	80
-G03	25:4	300	11	25	80
-G04	25:3	400	15	35	80
-G05	10:1	480	18	40	70
-G06	25:2	600	23	45	70
-G08	50:3	800	30	60	70
-G09	20:1	960	36	65	70
-G11	25:1	1200	45	70	70
-G14	100:3	1600	60	75	70
-G16	125:3	2000	75	80	70
-G17	50:1	2400	80	80	70
-G19	125:2	3000	80	80	65
-G21	250:3	4000	80	80	65
-G23	125:1	6000	80	80	65
-G27	250:1	12000	80	80	65
-G34	500:1	24000	85	85	58
-G41	1250:1	60000	90	90	58
-G62	1500:1	720000	100	100	43

\* Maximum rating of gearbox

## P535-M48 Bi-Polar Geared Stepper Motor

### M48 xx motor specifications

Standard motor versions		P535-M48 1B	P535-M48 2B	Step rate @ typical working torque L/R : 200 Hz L/4R: 450 Hz
Number of phases		2	2	
Rated voltage ( L/R Drive)	V	5	12	
Current per phase	mA	400	160	
Resistance per phase	Ohm	12.5	72	
Inductance per phase	mH	16.4	86	

### P535-M48 series Geared Stepper Motor motor specification and part numbers

Geared Stepper Motor	Ratio	Steps per rev at Output	Holding Torque Ncm	Maximum Continuous Torque Ncm*	Efficiency
P535-M48 -G01....	25:6	200	8	20	80
-G03	25:4	300	12	25	80
-G04	25:3	400	16	35	80
-G05	10:1	480	19	40	70
-G06	25:2	600	24	45	70
-G08	50:3	800	32	60	70
-G09	20:1	960	38	65	70
-G11	25:1	1200	48	70	70
-G14	100:3	1600	63	75	70
-G16	125:3	2000	79	80	70
-G17	50:1	2400	80	80	70
-G19	125:2	3000	80	80	65
-G21	250:3	4000	80	80	65
-G23	125:1	6000	80	80	65
-G27	250:1	12000	80	80	65
-G34	500:1	24000	85	85	58
-G41	1250:1	60000	90	90	58
-G62	1500:1	720000	100	100	43

\* Maximum rating of gearbox

### P5 series ordering code

P535	M48	1B	G04	L82
Series	Motor Type	Motor Winding	Ratio	Shaft