

## Kinetix VP Low Inertia Motors



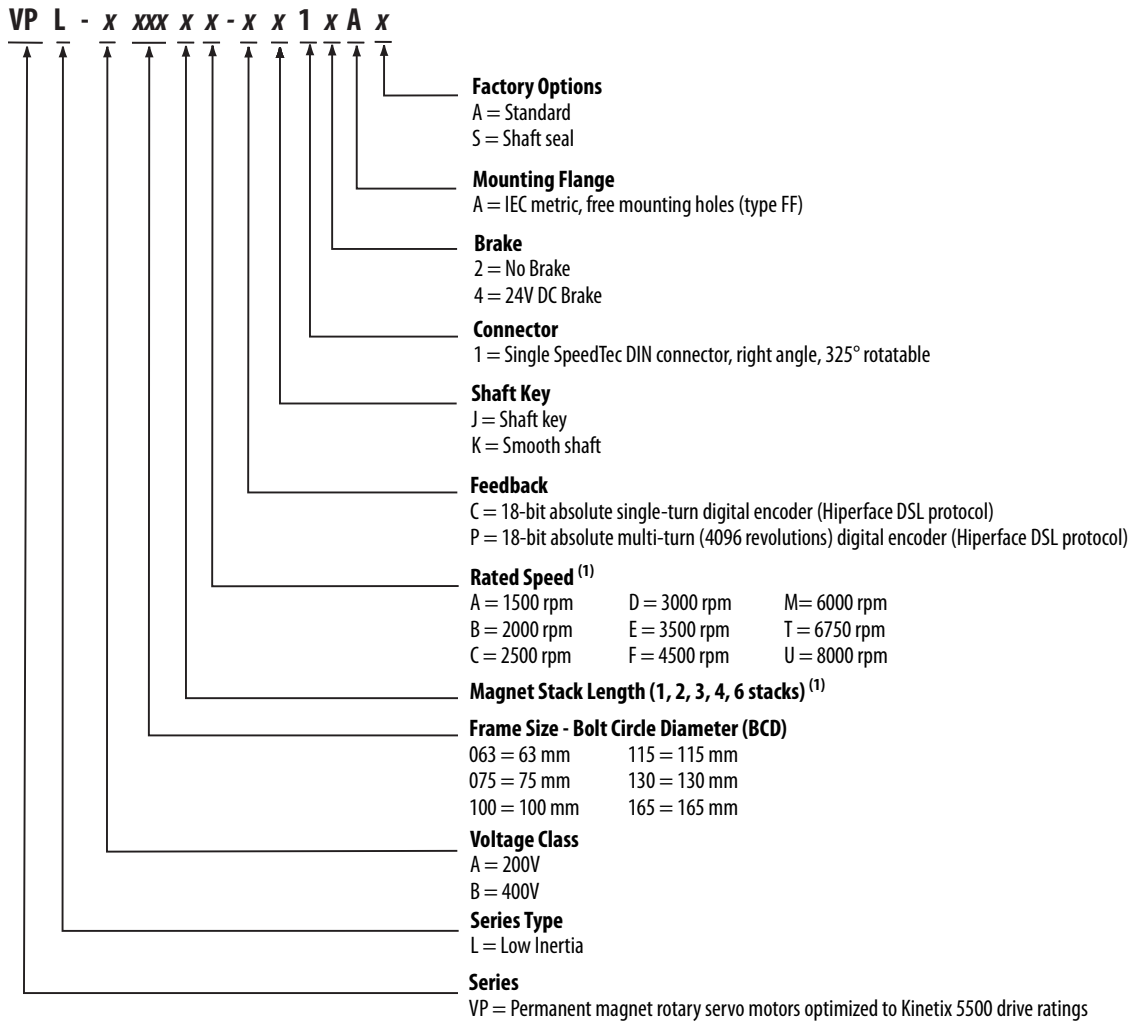
Kinetix VP (Bulletin VPL) low-inertia servo motors are available with winding options matched to Kinetix 5500 drive ratings. Optimized system sizing lowers system cost and improves energy efficiency. The digital feedback device provides real-time motor performance information to the control system and the single-cable design between motor and drive simplifies installation. Bulletin VPL motors are based on proven MP-Series™ technology for dynamic performance, increased reliability, and leverages high volume production.

### Kinetix VP Low Inertia Motor Features

Attribute	Value
Main characteristics	<ul style="list-style-type: none"> <li>• Developed to match Kinetix 5500 drive ratings for optimized system sizing</li> <li>• Single cable technology</li> <li>• High torque to size ratio</li> <li>• Low rotor inertia</li> </ul>
Features	<ul style="list-style-type: none"> <li>• 200V and 400V-class windings</li> <li>• High-energy rare-earth magnets</li> <li>• Shaft-end threaded hole</li> <li>• SpeedTec DIN connector, rotates 325°</li> <li>• Standard IEC 72-1 mounting dimensions</li> </ul>
Motor type	Brushless AC synchronous servo motors
Environmental rating	<ul style="list-style-type: none"> <li>• IP50 minimum, without shaft seal (standard)</li> <li>• IP66 with optional shaft seal and use of environmentally sealed cable connectors</li> </ul>
Certifications	Bulletin VPL rotary motors are UL Recognized components to applicable UL and CSA standards. CE marked for all applicable directives. Refer to <a href="http://www.ab.com">http://www.ab.com</a> for more information.
Continuous stall torque	0.46...33 N·m (4...292 lb·in)
Peak stall torque	1.33...79 N·m (12...702 lb·in)
Rated speed	Up to 8000 rpm
Motor rated output	0.19...5.55 kW (0.25...7.44 Hp)
Compatible servo drives	Kinetix 5500
Typical applications	<ul style="list-style-type: none"> <li>• Packaging</li> <li>• Converting</li> <li>• Material handling</li> <li>• Electronic assembly</li> <li>• Automotive</li> <li>• Metal forming</li> </ul>

## Catalog Numbers - Kinetix VP Low Inertia Motors

Catalog numbers consist of various characters, each of which identifies a specific option for that component. Use the catalog numbering table chart below to understand the configuration of your motor. For questions regarding product availability, contact your Allen-Bradley distributor.



(1) Not all combinations are available. Only the configurations for rated speed and magnet stack length, as listed in Kinetix VP Low Inertia Motor (200V-class) Performance Specifications on [page 6](#) and Kinetix VP Low Inertia Motor (400V-class) Performance Specifications on [page 7](#), are available. Use Motion Analyzer software to size and select motors for your application.

## Kinetix VP Single Cable Technology

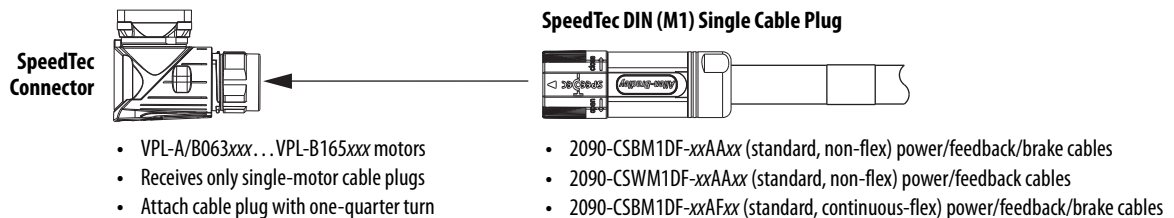
Kinetix VP low-inertia motors are available with high performance encoders with a choice of single-turn (-C) or multi-turn (-P) high resolution feedback:

- Motor connectivity reduced to a single connector and cable
  - Single cable eliminates hardware and wire terminations
  - Purely digital two-wire communication integrated into the motor power cable
  - Bulletin 2090 cables available in 1.0 m (3.2 ft) increments up to 50 m (164 ft)
- Up to 260 thousand counts per revolution (choice of single-turn or multi-turn) for smooth performance
  - Single-turn encoder provides high-resolution absolute position feedback within one turn
  - Multi-turn encoder provides high-resolution absolute position feedback within 4096 turns (electromechanical design does not require a battery)

**IMPORTANT** Due to the unique characteristics of single cable technology, designed for and tested with Kinetix 5500 drives and Kinetix VP motors, building your own cables or using third-party cable is not an option.

## Motor Connector/Cable Compatibility

Kinetix VP (Bulletin VPL) motors are equipped with SpeedTec DIN connectors.



For 2090-Series single motor cable specifications, refer to Kinetix Motion Accessories Technical Data, publication [GMC-TD004](#).

## Kinetix VP Low Inertia Motor Options

Kinetix VP low-inertia motors are available with these configurable options:

- Single-turn or multi-turn encoder.
- 24V DC brake.
- Choice of keyed or keyless shaft.
- Shaft seal kits are available, as are replacement kits for field installation. Shaft seals are made of nitrile and kits include a lubricant to reduce wear.

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**IMPORTANT** Shaft seals are subject to wear and require periodic inspection and replacement. Replacement is recommended every 3 months, not to exceed 12 months, depending on use.

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### Shaft Seal Kit Catalog Numbers

Motor Cat. No.	Shaft Seal Kit Cat. No.
VPL-A063xx and VPL-B063xx	VPL-SSN-F063075
VPL-A075xx and VPL-B075xx	
VPL-A100xx and VPL-B100xx	MPL-SSN-A3B3
VPL-A115xx and VPL-B115xx	MPL-SSN-A4B4
VPL-A130xx and VPL-B130xx	MPL-SSN-A5B5
VPL-B165xx	MPL-SSN-F165

Refer to the Kinetix VP Low-inertia Servo Motors Installation Instructions, publication [VPL-IN001](#), for more information on motor accessories.

## Technical Specifications - Kinetix VP Low Inertia Motors

### Kinetix VP Low Inertia Motor (200V-class) Performance Specifications

Motor Cat. No.	Rated Speed, max rpm	Continuous Stall Torque N·m (lb·in)	Peak Stall Torque N·m (lb·in)	Motor Rated Output kW (Hp)	Speed at Motor Rated Output rpm	Rotor Inertia <sup>(1)</sup> kg·m <sup>2</sup> (lb·in·s <sup>2</sup> )	Motor Weight, <sup>(1)</sup> approx kg (lb)
VPL-A0631E	4500	0.46 (4.0)	1.33 (12.0)	0.19 (0.25)	4500	9.40E-06 (0.000083)	1.04 (2.30)
VPL-A0631M	7200	0.46 (4.0)	1.33 (12.0)	0.28 (0.38)	7200		
VPL-A0632F	4800	0.93 (8.0)	2.69 (24.0)	0.39 (0.52)	4800	1.70E-05 (0.00015)	1.36 (3.0)
VPL-A0633C	3000	1.27 (11.0)	4.09 (36.0)	0.37 (0.50)	3000	2.47E-05 (0.00022)	1.68 (3.70)
VPL-A0633F	4500	1.27 (11.0)	4.09 (36.0)	0.44 (0.59)	4500		
VPL-A0751E	4800	1.01 (9.0)	2.27 (20.0)	0.50 (0.67)	4800	1.36E-05 (0.00012)	1.48 (3.26)
VPL-A0752C	3300	1.61 (14.0)	4.39 (39.0)	0.49 (0.66)	3300	2.50E-05 (0.00022)	2.03 (4.47)
VPL-A0752E	4800	1.61 (14.0)	4.39 (39.0)	0.66 (0.88)	4800		
VPL-A0753C	3300	2.16 (19.0)	7.02 (62.0)	0.59 (0.79)	3300	3.65E-05 (0.00032)	2.59 (5.70)
VPL-A0753E	4600	2.28 (20.0)	7.35 (65.0)	0.80 (1.07)	4600		
VPL-A1001C	2800	1.93 (17.0)	3.78 (33.0)	0.56 (0.75)	2800	4.4E-05 (0.00039)	2.63 (5.80)
VPL-A1001M	6500	1.95 (17.0)	3.78 (33.0)	1.29 (1.73)	6500	7.8E-05 (0.00069)	4.52 (9.95)
VPL-A1002C	3000	3.39 (30.0)	7.82 (69.0)	1.03 (1.38)	3000		
VPL-A1002F	5000	3.26 (29.0)	7.82 (69.0)	1.60 (2.14)	5000	1.2E-04 (0.0010)	4.45 (9.80)
VPL-A1003C	2250	4.18 (37.0)	11.15 (99.0)	0.87 (1.17)	2250		
VPL-A1003E	3750	4.18 (37.0)	11.15 (99.0)	1.31 (1.76)	3750		
VPL-A1003F	5500	4.18 (37.0)	11.15 (99.0)	1.90 (2.55)	5500	2.6E-04 (0.0023)	4.43 (9.75)
VPL-A1152B	2150	5.10 (45.0)	13.12 (116)	1.02 (1.37)	2150		
VPL-A1152E	3300	5.08 (45.0)	13.12 (116)	1.47 (1.97)	3300		
VPL-A1152F	5000	4.70 (42.0)	13.12 (116)	2.16 (2.90)	5000	3.8E-04 (0.0033)	6.01 (13.23)
VPL-A1153C	2300	6.55 (58.0)	20.33 (180)	1.35 (1.81)	2300		
VPL-A1303B	1950	8.80 (78.0)	20.72 (183)	1.61 (2.16)	1950	4.0E-04 (0.0035)	7.54 (16.60)
VPL-A1303F	4000	7.75 (69.0)	20.72 (183)	2.50 (3.35)	4000		
VPL-A1304A	1600	10.29 (91.0)	28.45 (252)	1.55 (2.08)	1600	5.2E-04 (0.0046)	9.10 (20.05)
VPL-A1304D	3000	10.20 (90.0)	27.10 (240)	2.60 (3.50)	3000		
VPL-A1306C	2000	13.38 (118)	34.62 (306)	2.13 (2.86)	2000	7.8E-04 (0.0069)	12.21 (26.90)

(1) Refer to Kinetix VP Low Inertia Motor Brake Specifications on [page 8](#) for brake rotor inertia and brake motor weight.

## Kinetix VP Low Inertia Motor (400V-class) Performance Specifications

Motor Cat. No.	Rated Speed, max rpm	Continuous Stall Torque N·m (lb·in)	Peak Stall Torque N·m (lb·in)	Motor Rated Output kW (Hp)	Speed at Motor Rated Output rpm	Rotor Inertia <sup>(1)</sup> kg·m <sup>2</sup> (lb·in·s <sup>2</sup> )	Motor Weight, <sup>(1)</sup> approx kg (lb)
VPL-B0631T	8000	0.46 (4.0)	1.33 (12.0)	0.31 (0.42)	8000	9.40E-06 (0.000083)	1.04 (2.30)
VPL-B0631U	8000	0.46 (4.0)	1.33 (12.0)	0.31 (0.42)	8000		
VPL-B0632F	4600	0.93 (8.0)	2.69 (24.0)	0.37 (0.50)	4600	1.70E-05 (0.00015)	1.36 (3.00)
VPL-B0632T	8000	0.93 (8.0)	2.69 (24.0)	0.54 (0.72)	8000		
VPL-B0633M	6700	1.27 (11.0)	4.09 (36.0)	0.57 (0.76)	6500	2.47E-05 (0.00022)	1.68 (3.70)
VPL-B0633T	8000	1.27 (11.0)	4.09 (36.0)	0.57 (0.76)	6500		
VPL-B0751M	8000	1.01 (9.0)	2.27 (20.0)	0.54 (0.72)	8000	1.36E-05 (0.00012)	1.48 (3.26)
VPL-B0752E	4900	1.61 (14.0)	4.39 (39.0)	0.67 (0.90)	4900		
VPL-B0752F	7000	1.61 (14.0)	4.39 (39.0)	0.80 (1.07)	7000	2.50E-05 (0.00022)	2.03 (4.47)
VPL-B0752M	8000	1.61 (14.0)	4.39 (39.0)	0.81 (1.09)	8000		
VPL-B0753E	4500	2.28 (20.0)	7.35 (65.0)	0.81 (1.09)	4500	3.65E-05 (0.00032)	2.59 (5.70)
VPL-B0753F	6600	2.16 (19.0)	7.02 (62.0)	0.65 (0.87)	4500		
VPL-B0753M	8000	2.28 (20.0)	7.35 (65.0)	0.82 (1.10)	6000		
VPL-B1001M	6000	1.93 (17.0)	3.78 (33.0)	1.14 (1.53)	6000	4.4E-05 (0.00039)	2.63 (5.80)
VPL-B1002E	3300	3.39 (30.0)	7.82 (69.0)	1.12 (1.50)	3300	7.8E-05 (0.00069)	3.56 (7.85)
VPL-B1002M	6000	3.39 (30.0)	7.82 (69.0)	1.86 (2.49)	6000		
VPL-B1003C	2500	4.18 (37.0)	11.15 (99.0)	0.96 (1.29)	2500	1.2E-04 (0.0010)	4.45 (9.80)
VPL-B1003F	4750	4.18 (37.0)	11.15 (99.0)	1.65 (2.21)	4750		
VPL-B1003T	7000	4.18 (37.0)	11.15 (99.0)	1.77 (2.37)	7000		
VPL-B1152C	2250	5.10 (45.0)	13.12 (116)	1.06 (1.42)	2250	2.6E-04 (0.0023)	5.43 (11.95)
VPL-B1152F	4500	5.10 (45.0)	13.12 (116)	1.40 (1.88)	4000		
VPL-B1152T	6500	5.08 (45.0)	13.12 (116)	2.29 (3.07)	6500		
VPL-B1153E	3200	6.55 (58.0)	20.33 (180)	1.75 (2.35)	3200	3.8E-04 (0.0033)	6.01 (13.23)
VPL-B1153F	5000	6.55 (58.0)	20.33 (180)	2.30 (3.08)	5000		
VPL-B1303C	2250	8.80 (78.0)	20.72 (183)	1.83 (2.45)	2250	4.0E-04 (0.0035)	7.54 (16.60)
VPL-B1303F	4000	8.80 (78.0)	20.72 (183)	2.82 (3.78)	4000		
VPL-B1304C	2150	10.29 (91.0)	28.45 (252)	1.75 (2.35)	2150	5.2E-04 (0.0046)	9.10 (20.05)
VPL-B1304E	3500	10.29 (91.0)	28.45 (252)	2.82 (3.78)	3500		
VPL-B1306C	2500	13.38 (118)	34.62 (306)	2.46 (3.30)	2500	7.8E-04 (0.0069)	12.21 (26.9)
VPL-B1306F	4250	13.38 (118)	34.62 (306)	2.95 (3.95)	4250		
VPL-B1651C	2750	11.50 (102)	22.45 (199)	2.32 (3.11)	2750	7.83E-04 (0.0069)	15.30 (33.70)
VPL-B1651F	4750	11.43 (101)	22.45 (199)	4.38 (5.87)	4750		
VPL-B1652C	2700	19.40 (172)	48.60 (430)	4.18 (5.60)	2700	1.47E-03 (0.013)	17.80 (39.24)
VPL-B1652F	4000	17.60 (156)	48.60 (430)	4.77 (6.40)	4000		
VPL-B1653C	2300	25.76 (228)	66.70 (590)	4.38 (5.87)	2300	2.13E-03 (0.019)	20.66 (45.50)
VPL-B1653D	3000	24.20 (214)	67.80 (600)	5.50 (7.30)	3000		
VPL-B1654B	1850	32.97 (292)	79.30 (702)	5.55 (7.44)	1850	2.89E-03 (0.025)	25.65 (56.55)
VPL-B1654D	3000	32.0 (283)	75.30 (666)	7.16 (9.60)	3000		

(1) Refer to MP-Series Low Inertia Motor Brake Specifications on [page 56](#) for brake rotor inertia and brake motor weight.

**Kinetix VP Low Inertia Motor Brake Specifications**

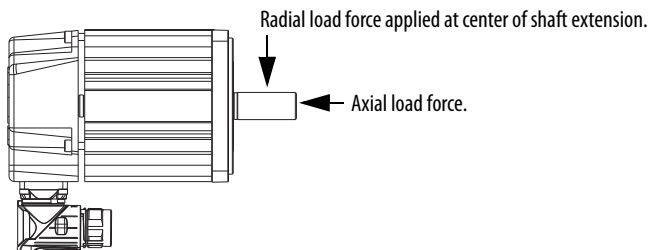
Motor Cat. No.	Backlash, max (brake engaged) arc minutes	Holding Torque N·m (lb·in)	Coil Current at 24V DC A	Brake Response Time		Brake Rotor Inertia kg·m <sup>2</sup> (lb·in·s <sup>2</sup> )	Brake Motor Weight, approx kg (lb)
				Release ms	Engage <sup>(1)</sup> ms		
VPL-A/B0631	30	1.50 (13)	0.297...0.363	38	25	1.18E-05 (0.00010)	1.36 (3.0)
VPL-A/B0632						1.94E-05 (0.00017)	1.70 (3.74)
VPL-A/B0633						2.71E-05 (0.00024)	2.02 (4.45)
VPL-A/B0751		3.0 (27)	0.567...0.693	66	42	1.82E-05 (0.00016)	2.06 (4.54)
VPL-A/B0752						2.97E-05 (0.00026)	2.62 (5.77)
VPL-A/B0753						4.12E-05 (0.00036)	3.18 (7.0)
VPL-A/B1001	30	4.18 (37)	0.45...0.55	90	65	5.9E-05 (0.00052)	3.26 (7.19)
VPL-A/B1002						9.3E-05 (0.00082)	4.20 (9.24)
VPL-A/B1003						1.35E-04 (0.0012)	5.08 (11.19)
VPL-A/B1152		6.55 (58)	0.621...0.759	90	95	2.89E-04 (0.0025)	5.30 (11.67)
VPL-A/B1153						4.09E-04 (0.0036)	6.88 (15.15)
VPL-A/B1303						4.33E-04 (0.0038)	8.64 (19.03)
VPL-A/B1304		14.10 (125)	0.738...0.902	125	120	5.53E-04 (0.0049)	10.21 (22.48)
VPL-A/B1306						8.13E-04 (0.0072)	13.32 (29.33)
VPL-B1651						32.0 (283)	1.053...1.287
VPL-B1652		1.53E-03 (0.013)	19.65 (43.32)				
VPL-B1653		2.19E-03 (0.019)	22.51 (49.58)				
VPL-B1654		2.95E-03 (0.026)	27.50 (60.63)				

(1) By using diode and zener diode as arc suppression device in external control circuit.

**Kinetix VP Low Inertia Motor Load Force Ratings**

Bulletin VPL motors are capable of operating with the maximum radial or maximum axial shaft loads listed in the following tables. Radial loads listed are applied in the middle of the shaft extension. The tables starting below represent an L<sub>10</sub> bearing fatigue life of 20,000 hours. This 20,000-hour life does not account for possible application-specific life reduction that can occur due to bearing grease contamination from external sources. Maximum operating speed is limited by motor winding.

**VPL-xxxx-xxxxAx Load Forces**



## Kinetix VP Low Inertia Motors (063...075 frame size)

## Radial Load Force Ratings (maximum) for Non-brake Motors

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM														
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf
VPL-A0631E	4500	–	26.7	–	–	20.8 *	18.5	–	–	16.2	–	–	–	–	–	–
VPL-A0631M	7200	–	–	23.3	–	19.7	–	–	–	16.7 *	–	–	–	–	13.8	–
VPL-A0632F	4800	–	28.9	25.2	–	–	21.0 *	–	–	–	17.1 *	–	–	–	–	–
VPL-A0633C	3000	38.1	30.3	27.4 *	–	–	21.0	–	–	–	–	–	–	–	–	–
VPL-A0633F	4500	38.1	–	26.4	–	–	21.0	–	–	18.3	–	–	–	–	–	–
VPL-A0751E	4800	33.3	26.4	–	–	20.6 *	–	–	–	–	15.7 *	–	–	–	–	–
VPL-A0752C	3300	36.1	28.6	25.9 *	–	–	–	19.2 *	–	–	–	–	–	–	–	–
VPL-A0752E	4800	36.1	28.6	–	–	21.8 *	–	–	–	–	17.0 *	–	–	–	–	–
VPL-A0753C	3300	37.8	30.0	27.5 *	–	–	–	20.2 *	–	–	–	–	–	–	–	–
VPL-A0753E	4600	37.8	30.0	–	–	23.3 *	–	–	–	–	18.0 *	–	–	–	–	–
VPL-B0631T	8000	–	–	23.3	–	–	18.5	–	–	–	–	14.9 *	–	–	–	13.3
VPL-B0631U	8000	–	–	23.3	–	–	18.5	–	–	–	15.6	–	–	–	–	13.3
VPL-B0632F	4800	–	28.9	25.2	–	–	21.0 *	–	–	–	17.1 *	–	–	–	–	–
VPL-B0632T	8000	–	–	–	22.9	–	–	–	18.2	–	–	–	15.6 *	–	–	14.4
VPL-B0633M	6900	–	30.3	–	24.0	–	–	–	19.2 *	–	–	–	–	15.9 *	–	–
VPL-B0633T	8000	–	–	26.4	–	–	21.0	–	–	–	–	16.8 *	–	–	–	15.1
VPL-B0751M	8000	–	–	23.1	–	–	18.3	–	–	–	15.7 *	–	–	–	–	13.2
VPL-B0752E	4800	36.1	28.6	–	–	22.0 *	–	–	–	–	17.0 *	–	–	–	–	–
VPL-B0752F	7000	–	28.6	–	22.7	–	–	19.3 *	–	–	–	–	–	15.0	–	–
VPL-B0752M	8000	–	–	25.0	–	–	20.8	–	–	–	16.8 *	–	–	–	–	14.3
VPL-B0753E	4500	37.8	30.0	–	23.8	–	–	–	–	18.2	–	–	–	–	–	–
VPL-B0753F	6500	–	30.0	–	23.8	–	–	20.6 *	–	–	–	–	16.1	–	–	–
VPL-B0753M	8000	–	–	26.2	–	–	19.8	–	–	–	18.0 *	–	–	–	–	15.0

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.



**Axial Load Force Ratings (maximum radial load) for Non-brake Motors**

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM														
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf
VPL-A0631E	4500	–	22.3	–	–	16.1 *	13.8	–	–	11.6	–	–	–	–	–	–
VPL-A0631M	7200	–	–	18.7	–	15.0	–	–	–	12.1 *	–	–	–	–	9.5 *	–
VPL-A0632F	4800	–	23.5	19.7	–	–	15.5 *	–	–	–	11.9 *	–	–	–	–	–
VPL-A0633C	3000	32.7	24.2	21.3 *	–	–	15.0	–	–	–	–	–	–	–	–	–
VPL-A0633F	4500	32.7	–	20.3	–	–	15.0	–	–	12.6	–	–	–	–	–	–
VPL-A0751E	4800	30.0	22.2	–	–	16.1 *	–	–	–	–	11.2 *	–	–	–	–	–
VPL-A0752C	3300	31.5	23.3	20.5 *	–	–	–	13.9 *	–	–	–	–	–	–	–	–
VPL-A0752E	4800	31.5	23.3	–	–	16.4 *	–	–	–	–	11.8 *	–	–	–	–	–
VPL-A0753C	3300	32.5	24.1	21.5 *	–	–	–	14.3 *	–	–	–	–	–	–	–	–
VPL-A0753E	4600	32.5	24.1	–	–	17.3 *	–	–	–	–	12.4 *	–	–	–	–	–
VPL-B0631T	8000	–	–	18.7	–	–	13.8	–	–	–	–	10.5 *	–	–	–	9.0
VPL-B0631U	8000	–	–	18.7	–	–	13.8	–	–	–	11.1	–	–	–	–	9.0
VPL-B0632F	4800	–	23.5	19.7	–	–	15.5 *	–	–	–	11.9 *	–	–	–	–	–
VPL-B0632T	8000	–	–	–	17.4	–	–	–	12.9	–	–	–	10.6	–	–	9.5
VPL-B0633M	6900	–	24.2	–	17.9	–	–	–	13.4 *	–	–	–	–	10.5 *	–	–
VPL-B0633T	8000	–	–	20.3	–	–	15.0	–	–	–	–	11.3 *	–	–	–	9.8
VPL-B0751M	8000	–	–	18.6	–	–	13.8	–	–	–	11.2 *	–	–	–	–	9.0
VPL-B0752E	4800	31.5	23.3	–	–	16.6 *	–	–	–	–	11.8 *	–	–	–	–	–
VPL-B0752F	7000	–	23.3	–	17.3	–	–	14.0 *	–	–	–	–	–	10.0	–	–
VPL-B0752M	8000	–	–	19.6	–	–	14.5	–	–	–	11.7 *	–	–	–	–	9.5
VPL-B0753E	4500	32.5	24.1	–	17.8	–	–	–	–	12.5	–	–	–	–	–	–
VPL-B0753F	6500	–	24.1	–	17.8	–	–	14.7 *	–	–	–	–	10.7	–	–	–
VPL-B0753M	8000	–	–	20.2	–	–	14.9	–	–	–	12.4 *	–	–	–	–	9.8

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

## Axial Load Force Ratings (zero radial load) for Non-brake Motors

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM														
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf
VPL-A0631E	4500	–	27.5	–	–	19.9 *	17.1	–	–	14.3	–	–	–	–	–	–
VPL-A0631M	7200	–	–	23.0	–	18.5	–	–	–	14.9 *	–	–	–	–	11.7 *	–
VPL-A0632F	4800	–	27.5	23.0	–	–	18.1 *	–	–	–	13.9 *	–	–	–	–	–
VPL-A0633C	3000	37.1	27.5	24.1 *	–	–	17.1	–	–	–	–	–	–	–	–	–
VPL-A0633F	4500	37.1	–	23.0	–	–	17.1	–	–	14.3	–	–	–	–	–	–
VPL-A0751E	4800	37.1	27.5	–	–	19.9 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-A0752C	3300	37.1	27.5	24.1 *	–	–	–	16.4 *	–	–	–	–	–	–	–	–
VPL-A0752E	4800	37.1	27.5	–	–	19.3 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-A0753C	3300	37.1	27.5	24.5 *	–	–	–	16.4 *	–	–	–	–	–	–	–	–
VPL-A0753E	4600	37.1	27.5	–	–	19.7 *	–	–	–	–	14.2 *	–	–	–	–	–
VPL-B0631T	8000	–	–	23.0	–	–	17.1	–	–	–	–	12.9 *	–	–	–	11.1
VPL-B0631U	8000	–	–	23.0	–	–	17.1	–	–	–	13.7	–	–	–	–	11.1
VPL-B0632F	4800	–	27.5	23.0	–	–	18.1 *	–	–	–	13.9 *	–	–	–	–	–
VPL-B0632T	8000	–	–	–	20.3	–	–	–	15.1	–	–	–	12.4 *	–	–	11.1
VPL-B0633M	6900	–	27.5	–	20.3	–	–	–	15.2 *	–	–	–	–	11.9 *	–	–
VPL-B0633T	8000	–	–	23.0	–	–	17.1	–	–	–	–	12.8 *	–	–	–	11.1
VPL-B0751M	8000	–	–	23.0	–	–	17.1	–	–	–	13.9 *	–	–	–	–	11.1
VPL-B0752E	4800	37.1	27.5	–	–	19.5 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-B0752F	7000	–	27.5	–	20.3	–	–	16.5 *	–	–	–	–	–	11.8	–	–
VPL-B0752M	8000	–	–	23.0	–	–	17.1	–	–	–	13.8 *	–	–	–	–	11.1
VPL-B0753E	4500	37.1	27.5	–	20.3	–	–	–	–	14.3	–	–	–	–	–	–
VPL-B0753F	6500	–	27.5	–	20.3	–	–	16.8 *	–	–	–	–	12.2	–	–	–
VPL-B0753M	8000	–	–	23.0	–	–	17.1	–	–	–	14.2 *	–	–	–	–	11.1

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

**Radial Load Force Ratings (maximum) for Brake Motors**

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM															
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf	
VPL-A0631E	4500	–	29.2	–	–	22.8 *	20.3	–	–	17.7	–	–	–	–	–	–	
VPL-A0631M	7200	–	–	25.5	–	21.5	–	–	–	18.3 *	–	–	–	–	15.1 *	–	
VPL-A0632F	4800	–	30.5	26.6	–	–	22.2 *	–	–	–	18.1 *	–	–	–	–	–	
VPL-A0633C	3000	39.5	31.4	28.4 *	–	–	21.8	–	–	–	–	–	–	–	–	–	
VPL-A0633F	4500	39.5	–	27.4	–	–	21.8	–	–	19.0	–	–	–	–	–	–	
VPL-A0751E	4800	36.5	29.0	–	–	22.6 *	–	–	–	–	17.2 *	–	–	–	–	–	
VPL-A0752C	3300	38.1	30.3	27.4	–	–	–	20.3 *	–	–	–	–	–	–	–	–	
VPL-A0752E	4800	38.1	30.3	–	–	23.1 *	–	–	–	–	17.9 *	–	–	–	–	–	
VPL-A0753C	3300	39.2	31.2	28.5 *	–	–	–	20.9 *	–	–	–	–	–	–	–	–	
VPL-A0753E	4600	39.2	31.2	–	–	24.1 *	–	–	–	–	18.7 *	–	–	–	–	–	
VPL-B0631T	8000	–	–	25.5	–	–	20.3	–	–	–	–	16.4 *	–	–	–	14.6	
VPL-B0631U	8000	–	–	25.5	–	–	20.3	–	–	–	17.1	–	–	–	–	14.6	
VPL-B0632F	4800	–	30.5	26.6	–	–	22.2 *	–	–	–	18.1 *	–	–	–	–	–	
VPL-B0632T	8000	–	–	–	24.2	–	–	–	19.2	–	–	–	16.5 *	–	–	15.3	
VPL-B0633M	6900	–	31.4	–	24.9	–	–	–	19.9 *	–	–	–	–	16.5 *	–	–	
VPL-B0633T	8000	–	–	27.4	–	–	21.8	–	–	–	–	17.5 *	–	–	–	15.7	
VPL-B0751M	8000	–	–	25.3	–	–	20.1	–	–	–	17.2 *	–	–	–	–	14.5	
VPL-B0752E	4800	38.1	30.3	–	–	23.3 *	–	–	–	–	17.9 *	–	–	–	–	–	
VPL-B0752F	7000	–	30.3	–	24.0	–	–	20.4 *	–	–	–	–	–	15.8	–	–	
VPL-B0752M	8000	–	–	26.4	–	–	21.0	–	–	–	17.8 *	–	–	–	–	15.1	
VPL-B0753E	4500	39.2	31.2	–	24.7	–	–	–	–	18.9	–	–	–	–	–	–	
VPL-B0753F	6500	–	31.2	–	24.7	–	–	21.4 *	–	–	–	–	16.7	–	–	–	
VPL-B0753M	8000	–	–	27.2	–	–	21.6	–	–	–	18.7 *	–	–	–	–	15.6	

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

**Axial Load Force Ratings (maximum radial load) for Brake Motors**

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM															
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf	
VPL-A0631E	4500	–	23.7	–	–	17.2 *	14.7	–	–	12.3	–	–	–	–	–	–	
VPL-A0631M	7200	–	–	19.9	–	15.9	–	–	–	12.8	–	–	–	–	10.0 *	–	
VPL-A0632F	4800	–	24.3	20.4	–	–	16.1 *	–	–	–	12.3 *	–	–	–	–	–	
VPL-A0633C	3000	33.5	24.8	21.8 *	–	–	15.4	–	–	–	–	–	–	–	–	–	
VPL-A0633F	4500	33.5	–	20.8	–	–	15.4	–	–	12.9	–	–	–	–	–	–	
VPL-A0751E	4800	31.8	23.5	–	–	17.1 *	–	–	–	–	11.9 *	–	–	–	–	–	
VPL-A0752C	3300	32.7	24.2	21.3 *	–	–	–	14.4 *	–	–	–	–	–	–	–	–	
VPL-A0752E	4800	32.7	24.2	–	–	17.0 *	–	–	–	–	12.3 *	–	–	–	–	–	
VPL-A0753C	3300	33.4	24.7	22.0 *	–	–	–	14.7 *	–	–	–	–	–	–	–	–	
VPL-A0753E	4600	33.4	24.7	–	–	17.7 *	–	–	–	–	12.7 *	–	–	–	–	–	
VPL-B0631T	8000	–	–	19.9	–	–	14.7	–	–	–	–	11.1 *	–	–	–	9.6	
VPL-B0631U	8000	–	–	19.9	–	–	14.7	–	–	–	11.8	–	–	–	–	9.6	
VPL-B0632F	4800	–	24.3	20.4	–	–	16.1 *	–	–	–	12.3 *	–	–	–	–	–	
VPL-B0632T	8000	–	–	–	18.0	–	–	–	13.3	–	–	–	11.0 *	–	–	9.9	

**Axial Load Force Ratings (maximum radial load) for Brake Motors (continued)**

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf
VPL-B0633M	6900	–	24.8	–	18.4	–	–	–	13.7 *	–	–	–	–	10.7 *	–	–
VPL-B0633T	8000	–	–	20.8	–	–	15.4	–	–	–	–	11.6 *	–	–	–	10.1
VPL-B0751M	8000	–	–	19.7	–	–	14.6	–	–	–	11.9 *	–	–	–	–	9.5
VPL-B0752E	4800	32.7	24.2	–	–	17.2 *	–	–	–	–	12.3 *	–	–	–	–	–
VPL-B0752F	7000	–	24.2	–	17.9	–	–	14.5 *	–	–	–	–	–	10.4	–	–
VPL-B0752M	8000	–	–	20.3	–	–	15.0	–	–	–	12.1 *	–	–	–	–	9.8
VPL-B0753E	4500	33.4	24.7	–	18.3	–	–	–	–	12.9	–	–	–	–	–	–
VPL-B0753F	6500	–	24.7	–	18.3	–	–	15.1 *	–	–	–	–	11.0	–	–	–
VPL-B0753M	8000	–	–	20.7	–	–	15.3	–	–	–	12.7 *	–	–	–	–	10.0

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

**Axial Load Force Ratings (zero radial load) for Brake Motors**

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	6000 kgf	6500 kgf	7000 kgf	7500 kgf	8000 kgf
VPL-A0631E	4500	–	27.5	–	–	19.9 *	17.1	–	–	14.3	–	–	–	–	–	–
VPL-A0631M	7200	–	–	23.0	–	18.5	–	–	–	14.9 *	–	–	–	–	11.7 *	–
VPL-A0632F	4800	–	27.5	23.0	–	–	18.1 *	–	–	–	13.9 *	–	–	–	–	–
VPL-A0633C	3000	37.1	27.5	24.1 *	–	–	17.1	–	–	–	–	–	–	–	–	–
VPL-A0633F	4500	37.1	–	23.0	–	–	17.1	–	–	14.3	–	–	–	–	–	–
VPL-A0751E	4800	37.1	27.5	–	–	19.9 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-A0752C	3300	37.1	27.5	24.1 *	–	–	–	16.4 *	–	–	–	–	–	–	–	–
VPL-A0752E	4800	37.1	27.5	–	–	19.3 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-A0753C	3300	37.1	27.5	24.5 *	–	–	–	16.4 *	–	–	–	–	–	–	–	–
VPL-A0753E	4600	37.1	27.5	–	–	19.7 *	–	–	–	–	14.2 *	–	–	–	–	–
VPL-B0631T	8000	–	–	23.0	–	–	17.1	–	–	–	–	12.9 *	–	–	–	11.1
VPL-B0631U	8000	–	–	23.0	–	–	17.1	–	–	–	13.7	–	–	–	–	11.1
VPL-B0632F	4800	–	27.5	23.0	–	–	18.1 *	–	–	–	13.9 *	–	–	–	–	–
VPL-B0632T	8000	–	–	–	20.3	–	–	–	15.1	–	–	–	12.4 *	–	–	11.1
VPL-B0633M	6900	–	27.5	–	20.3	–	–	–	15.2 *	–	–	–	–	11.9 *	–	–
VPL-B0633T	8000	–	–	23.0	–	–	17.1	–	–	–	–	12.8 *	–	–	–	11.1
VPL-B0751M	8000	–	–	23.0	–	–	17.1	–	–	–	13.9 *	–	–	–	–	11.1
VPL-B0752E	4800	37.1	27.5	–	–	19.5 *	–	–	–	–	13.9 *	–	–	–	–	–
VPL-B0752F	7000	–	27.5	–	20.3	–	–	16.5 *	–	–	–	–	–	11.8	–	–
VPL-B0752M	8000	–	–	23.0	–	–	17.1	–	–	–	13.8 *	–	–	–	–	11.1
VPL-B0753E	4500	37.1	27.5	–	20.3	–	–	–	–	14.3	–	–	–	–	–	–
VPL-B0753F	6500	–	27.5	–	20.3	–	–	16.8 *	–	–	–	–	12.2	–	–	–
VPL-B0753M	8000	–	–	23.0	–	–	17.1	–	–	–	14.2 *	–	–	–	–	11.1

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

*Kinetix VP Low Inertia Motors (100... 165 frame size)*

**Radial Load Force Ratings (maximum) for Non-brake Motors**

Motor Cat. No. <sup>(1)</sup>	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	79.1	—	62.8	—	49.8	—	44.6*	—	—	—	—	—	—	—	—
VPL-A1001M	6500	—	—	—	54.9	—	46.3	—	—	—	38.0	—	—	—	33.6	—
VPL-A1002C	3000	87.9	—	69.7	—	55.4	—	48.4	—	—	—	—	—	—	—	—
VPL-A1002F	5000	—	—	69.7	60.9	—	—	48.4	—	—	—	40.8	—	—	—	—
VPL-A1003C	2250	93.6	—	74.3	64.9	—	56.7*	—	—	—	—	—	—	—	—	—
VPL-A1003E	3750	93.6	—	74.3	—	59.0	—	—	—	47.8*	—	—	—	—	—	—
VPL-A1003F	5500	—	—	—	64.9	—	54.8	—	—	46.8	—	—	42.1	—	—	—
VPL-A1152B	2150	98.8	—	78.4	68.5	—	60.8*	—	—	—	—	—	—	—	—	—
VPL-A1152E	3300	98.8	—	78.4	—	62.2	—	—	52.7*	—	—	—	—	—	—	—
VPL-A1152F	5000	—	—	78.4	—	62.2	—	54.4	—	—	—	45.9	—	—	—	—
VPL-A1153C	2300	106.4	—	84.5	73.8	—	64.0*	—	—	—	—	—	—	—	—	—
VPL-A1303B	1950	132.9	—	105.5	92.2	84.4*	—	—	—	—	—	—	—	—	—	—
VPL-A1303F	4000	—	—	105.5	—	83.7	—	73.1	—	66.5	—	—	—	—	—	—
VPL-A1304A	1600	140.2	122.5	112.2*	—	95.2*	—	—	—	—	—	—	—	—	—	—
VPL-A1304D	3000	140.2	—	111.3	—	88.3	—	77.2	—	—	—	—	—	—	—	—
VPL-A1306C	2000	150.0	—	128.3*	107.7*	94.5	—	—	—	—	—	—	—	—	—	—
VPL-B1001M	6000	—	—	—	—	49.8	—	43.5	—	39.6	—	—	—	34.6	—	—
VPL-B1002E	3300	87.9	—	69.7	—	55.4	—	—	46.8*	—	—	—	—	—	—	—
VPL-B1002M	6000	—	—	—	60.9	—	—	48.4	—	—	42.2	—	—	38.4	—	—
VPL-B1003C	2500	93.6	—	74.3	64.9	—	54.8	—	—	—	—	—	—	—	—	—
VPL-B1003F	4750	—	—	74.3	64.9	—	—	51.5	—	—	—	44.2*	—	—	—	—
VPL-B1003T	7000	—	—	—	64.9	—	54.8	—	—	—	45.0	—	—	—	—	38.9
VPL-B1152C	2250	98.8	—	78.4	68.5	—	59.8*	—	—	—	—	—	—	—	—	—
VPL-B1152F	4500	—	—	78.4	—	62.2	—	54.4	—	—	47.5	—	—	—	—	—
VPL-B1152T	6500	—	—	—	68.5	—	57.8	—	—	49.4	—	—	—	—	42.0	—
VPL-B1153E	3200	106.4	—	84.5	—	67.0	—	—	57.3*	—	—	—	—	—	—	—
VPL-B1153F	5000	—	—	84.5	—	67.0	—	58.6	—	—	—	49.4	—	—	—	—
VPL-B1303C	2250	132.9	—	105.5	92.2	—	80.5*	—	—	—	—	—	—	—	—	—
VPL-B1303F	4000	—	—	105.5	—	83.7	—	74.0*	—	66.5	—	—	—	—	—	—
VPL-B1304C	2150	140.2	—	111.3	99.5*	—	86.2*	—	—	—	—	—	—	—	—	—
VPL-B1304E	3500	—	—	111.3	97.2	—	84.3*	—	73.3	—	—	—	—	—	—	—
VPL-B1306C	2500	150.0	—	119.1	—	100.8*	87.7	—	—	—	—	—	—	—	—	—
VPL-B1306F	4250	—	—	119.0	—	94.5	—	82.6	—	—	73.5*	—	—	—	—	—
VPL-B1651C	2750	161.3	—	128.0	—	108.3*	—	91.4*	—	—	—	—	—	—	—	—
VPL-B1651F	4750	—	—	128.0	—	101.6	—	88.7	—	—	—	76.1*	—	—	—	—
VPL-B1652C	2700	180.7	—	143.4	125.3	—	—	103.0*	—	—	—	—	—	—	—	—
VPL-B1652F	4000	—	—	143.4	125.3	—	—	105.7	—	—	90.4	—	—	—	—	—
VPL-B1653C	2300	192.4	—	152.7	136.5*	—	—	115.7*	—	—	—	—	—	—	—	—
VPL-B1653D	3000	—	—	152.7	139.9*	125.5*	—	105.9	—	—	—	—	—	—	—	—
VPL-B1654B	1850	200.1	174.8	—	152.5*	129.4*	—	—	—	—	—	—	—	—	—	—
VPL-B1654D	3000	—	—	158.8	138.8	126.1	—	110.1	—	—	—	—	—	—	—	—

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

## Axial Load Force Ratings (maximum radial load) for Non-brake Motors

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	25.0	–	19.0	–	10.0	–	10.0*	–	–	–	–	–	–	–	–
VPL-A1001M	6500	–	–	–	15.0	–	12.0	–	–	–	9.0	–	–	–	8.0	–
VPL-A1002C	3000	30.0	–	22.0	–	16.0	–	13.0	–	–	–	–	–	–	–	–
VPL-A1002F	5000	–	–	22.0	18.0	–	–	13.0	–	–	–	11.0	–	–	–	–
VPL-A1003C	2250	33.0	–	24.0	20.0	–	17.0*	–	–	–	–	–	–	–	–	–
VPL-A1003E	3750	33.0	–	24.0	–	18.0	–	–	–	13.0*	–	–	–	–	–	–
VPL-A1003F	5500	–	–	–	20.0	–	16.0	–	–	13.0	–	–	11.0	–	–	–
VPL-A1152B	2150	44.0	–	32.0	27.0	–	23.0*	–	–	–	–	–	–	–	–	–
VPL-A1152E	3300	44.0	–	32.0	–	24.0	–	–	15.0*	–	–	–	–	–	–	–
VPL-A1152F	5000	–	–	32.0	–	24.0	–	20.0	–	–	–	16.0	–	–	–	–
VPL-A1153C	2300	48.0	–	35.0	29.0	–	24.0*	–	–	–	–	–	–	–	–	–
VPL-A1303B	1950	39.0	–	29.0	24.0	22.0*	–	–	–	–	–	–	–	–	–	–
VPL-A1303F	4000	–	–	29.0	–	21.0	–	18.0	–	16.0	–	–	–	–	–	–
VPL-A1304A	1600	43.0	36.0	32.0*	–	26.0*	–	–	–	–	–	–	–	–	–	–
VPL-A1304D	3000	43.0	–	32.0	–	23.0	–	20.0	–	–	–	–	–	–	–	–
VPL-A1306C	2000	48.0	–	39.0*	31.0*	26.0	–	–	–	–	–	–	–	–	–	–
VPL-B1001M	6000	–	–	–	–	14.0	–	11.0	–	10.0	–	–	–	8.0	–	–
VPL-B1002E	3300	30.0	–	22.0	–	16.0	–	–	13.0*	–	–	–	–	–	–	–
VPL-B1002M	6000	–	–	–	18.0	–	–	13.0	–	–	11.0	–	–	10.0	–	–
VPL-B1003C	2500	33.0	–	24.0	20.0	–	16.0	–	–	–	–	–	–	–	–	–
VPL-B1003F	4750	–	–	24.0	20.0	–	–	15.0	–	–	–	12.0*	–	–	–	–
VPL-B1003T	7000	–	–	–	20.0	–	16.0	–	–	–	12.0	–	–	–	–	10.0
VPL-B1152C	2250	44.0	–	32.0	27.0	–	22.0*	–	–	–	–	–	–	–	–	–
VPL-B1152F	4500	–	–	32.0	–	24.0	–	20.0	–	–	17.0	–	–	–	–	–
VPL-B1152T	6500	–	–	–	27.0	–	21.0	–	–	17.0	–	–	–	–	14.0	–
VPL-B1153E	3200	48.0	–	35.0	–	26.0	–	–	21.0*	–	–	–	–	–	–	–
VPL-B1153F	5000	–	–	35.0	–	26.0	–	22.0	–	–	17.0	–	–	–	–	–
VPL-B1303C	2250	39.0	–	29.0	–	24.0	20.0*	–	–	–	–	–	–	–	–	–
VPL-B1303F	4000	–	–	29.0	–	21.0	–	18.0*	–	16.0	–	–	–	–	–	–
VPL-B1304C	2150	43.0	–	32.0	27.0*	–	23.0*	–	–	–	–	–	–	–	–	–
VPL-B1304E	3500	–	–	32.0	27.0	–	22.0*	–	18.0	–	–	–	–	–	–	–
VPL-B1306C	2500	48.0	–	36.0	–	29.0*	24.0	–	–	–	–	–	–	–	–	–
VPL-B1306F	4250	–	–	36.0	–	26.0	–	22.0	–	–	19.0*	–	–	–	–	–
VPL-B1651C	2750	48.0	–	35.0	–	28.0*	–	23.0*	–	–	–	–	–	–	–	–
VPL-B1651F	4750	–	–	35.0	–	26.0	–	22.0	–	–	–	18.0*	–	–	–	–
VPL-B1652C	2700	58.0	–	43.0	36.0	–	–	27.0*	–	–	–	–	–	–	–	–
VPL-B1652F	4000	–	–	43.1	36.1	–	–	28.9	–	–	23.6	–	–	–	–	–
VPL-B1653C	2300	64.0	–	47.0	41.0*	–	–	33.0*	–	–	–	–	–	–	–	–
VPL-B1653D	3000	–	–	47.6	42.5*	36.9*	–	29.5	–	–	–	–	–	–	–	–
VPL-B1654B	1850	68.0	–	57.0	48.0*	38.0*	–	–	–	–	–	–	–	–	–	–
VPL-B1654D	3000	–	–	50.7	42.5	37.5	–	31.5	–	–	–	–	–	–	–	–

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

**Axial Load Force Ratings (zero radial load) for Non-brake Motors**

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	49.4	–	36.5	–	27.0	–	23.4 *	–	–	–	–	–	–	–	–
VPL-A1001M	6500	–	–	–	30.6	–	24.5	–	–	–	19.0	–	–	–	16.2	–
VPL-A1002C	3000	49.4	–	36.5	–	27.0	–	22.7	–	–	–	–	–	–	–	–
VPL-A1002F	5000	–	–	36.5	30.6	–	–	22.7	–	–	–	18.2	–	–	–	–
VPL-A1003C	2250	49.4	–	36.5	30.6	–	25.7 *	–	–	–	–	–	–	–	–	–
VPL-A1003E	3750	49.4	–	36.5	–	27.0	–	–	–	20.6 *	–	–	–	–	–	–
VPL-A1003F	5500	–	–	–	30.6	–	24.5	–	–	20.0	–	–	17.4	–	–	–
VPL-A1152B	2150	68.3	–	50.5	42.4	–	36.0 *	–	–	–	–	–	–	–	–	–
VPL-A1152E	3300	68.3	–	50.5	–	37.4	–	–	30.1 *	–	–	–	–	–	–	–
VPL-A1152F	5000	–	–	50.5	–	37.4	–	31.4	–	–	–	25.1	–	–	–	–
VPL-A1153C	2300	68.3	–	50.5	42.4	–	35.2 *	–	–	–	–	–	–	–	–	–
VPL-A1303B	1950	68.3	–	50.5	42.4	37.8 *	–	–	–	–	–	–	–	–	–	–
VPL-A1303F	4000	–	–	50.5	–	37.4	–	31.4	–	27.7	–	–	–	–	–	–
VPL-A1304A	1600	68.3	57.2	51.1 *	–	41.2 *	–	–	–	–	–	–	–	–	–	–
VPL-A1304D	3000	68.3	–	50.5	–	37.4	–	31.4	–	–	–	–	–	–	–	–
VPL-A1306C	2000	68.3	–	55.7 *	44.3 *	37.4	–	–	–	–	–	–	–	–	–	–
VPL-B1001M	6000	–	–	–	–	27.0	–	22.7	–	20.0	–	–	–	16.8	–	–
VPL-B1002E	3300	49.4	–	36.5	–	27.0	–	–	21.8 *	–	–	–	–	–	–	–
VPL-B1002M	6000	–	–	–	30.6	–	–	22.7	–	–	19.0	–	–	16.8	–	–
VPL-B1003C	2500	49.4	–	36.5	30.6	–	24.5	–	–	–	–	–	–	–	–	–
VPL-B1003F	4750	–	–	36.5	30.6	–	–	22.7	–	–	–	18.6 *	–	–	–	–
VPL-B1003T	7000	–	–	–	30.6	–	24.5	–	–	–	19.0	–	–	–	–	15.7
VPL-B1152C	2250	68.3	–	50.5	42.4	–	35.5 *	–	–	–	–	–	–	–	–	–
VPL-B1152F	4500	–	–	50.5	–	37.4	–	31.4	–	–	26.3	–	–	–	–	–
VPL-B1152T	6500	–	–	–	42.4	–	33.9	–	–	27.7	–	–	–	–	22.4	–
VPL-B1153E	3200	68.3	–	50.5	–	37.4	–	–	30.5 *	–	–	–	–	–	–	–
VPL-B1153F	5000	–	–	50.5	–	37.4	–	31.4	–	–	–	25.1	–	–	–	–
VPL-B1303C	2250	68.3	–	50.5	42.3	–	35.5 *	–	–	–	–	–	–	–	–	–
VPL-B1303F	4000	–	–	50.5	–	37.4	–	31.8 *	–	27.7	–	–	–	–	–	–
VPL-B1304C	2150	68.3	–	50.5	43.6 *	–	36.2 *	–	–	–	–	–	–	–	–	–
VPL-B1304E	3500	–	–	50.5	42.4	–	35.2 *	–	29.3	–	–	–	–	–	–	–
VPL-B1306C	2500	68.3	–	50.5	–	40.6 *	33.9	–	–	–	–	–	–	–	–	–
VPL-B1306F	4250	–	–	50.5	–	37.4	–	31.4	–	–	27.0 *	–	–	–	–	–
VPL-B1651C	2750	90.1	–	66.7	–	53.7 *	–	43.0 *	–	–	–	–	–	–	–	–
VPL-B1651F	4750	–	–	66.7	–	49.4	–	41.4	–	–	–	33.9 *	–	–	–	–
VPL-B1652C	2700	90.1	–	66.7	55.9	–	–	43.3 *	–	–	–	–	–	–	–	–
VPL-B1652F	4000	–	–	66.7	55.9	–	44.8	–	–	36.5	–	–	–	–	–	–
VPL-B1653C	2300	90.1	–	66.7	57.6 *	–	46.4 *	–	–	–	–	–	–	–	–	–
VPL-B1653D	3000	–	–	66.7	59.5 *	51.7 *	–	41.4	–	–	–	–	–	–	–	–
VPL-B1654B	1850	90.1	75.6	–	63.2 *	51.1 *	–	–	–	–	–	–	–	–	–	–
VPL-B1654D	3000	–	–	66.7	55.9	49.4	–	41.4	–	–	–	–	–	–	–	–

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

## Radial Load Force Ratings (maximum) for Brake Motors

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	90.2	–	71.6	–	56.8	–	50.8*	–	–	–	–	–	–	–	–
VPL-A1001M	6500	–	–	–	62.5	–	52.7	–	–	–	43.4	–	–	–	38.4	–
VPL-A1002C	3000	95.3	–	75.6	–	60.0	–	52.4	–	–	–	–	–	–	–	–
VPL-A1002F	5000	–	–	75.6	66.1	–	–	52.4	–	–	–	44.2	–	–	–	–
VPL-A1003C	2250	99.0	–	78.5	68.6	–	59.9*	–	–	–	–	–	–	–	–	–
VPL-A1003E	3750	99.0	–	78.5	–	62.3	–	–	–	50.6*	–	–	–	–	–	–
VPL-A1003F	5500	–	–	–	68.6	–	57.9	–	–	49.5	–	–	44.5	–	–	–
VPL-A1152B	2150	111.3	–	88.4	77.2	–	68.5*	–	–	–	–	–	–	–	–	–
VPL-A1152E	3300	111.3	–	88.4	–	70.1	–	–	59.4*	–	–	–	–	–	–	–
VPL-A1152F	5000	–	–	88.4	–	70.1	–	61.3	–	–	–	51.7	–	–	–	–
VPL-A1153C	2300	115.4	–	91.6	80.0	–	69.4*	–	–	–	–	–	–	–	–	–
VPL-A1303B	1950	145.3	–	115.3	100.7	92.3*	–	–	–	–	–	–	–	–	–	–
VPL-A1303F	4000	–	–	115.3	–	91.5	–	80.0	–	72.7	–	–	–	–	–	–
VPL-A1304A	1600	149.7	130.8	119.8*	–	101.6*	–	–	–	–	–	–	–	–	–	–
VPL-A1304D	3000	149.5	–	118.6	–	94.2	–	82.3	–	–	–	–	–	–	–	–
VPL-A1306C	2000	156.0	–	133.4*	112.1*	98.3	–	–	–	–	–	–	–	–	–	–
VPL-B1001M	6000	–	–	–	–	56.8	–	49.6	–	45.1	–	–	–	39.4	–	–
VPL-B1002E	3300	95.3	–	75.6	–	60.0	–	–	50.8*	–	–	–	–	–	–	–
VPL-B1002M	6000	–	–	–	66.1	–	–	52.4	–	–	45.8	–	–	41.6	–	–
VPL-B1003C	2500	99.0	–	78.5	68.6	–	57.9	–	–	–	–	–	–	–	–	–
VPL-B1003F	4750	–	–	78.5	68.6	–	–	54.5	–	–	–	46.7*	–	–	–	–
VPL-B1003T	7000	–	–	–	68.6	–	57.9	–	–	–	47.6	–	–	–	–	41.1
VPL-B1152C	2250	111.3	–	88.4	77.2	–	67.4*	–	–	–	–	–	–	–	–	–
VPL-B1152F	4500	–	–	88.4	–	70.1	–	61.3	–	–	53.5	–	–	–	–	–
VPL-B1152T	6500	–	–	–	77.2	–	65.1	–	–	55.7	–	–	–	–	47.4	–
VPL-B1153E	3200	115.4	–	91.6	–	72.7	–	–	62.2*	–	–	–	–	–	–	–
VPL-B1153F	5000	–	–	91.6	–	72.7	–	63.5	–	–	–	53.6	–	–	–	–
VPL-B1303C	2250	145.3	–	115.3	100.7	–	88.0*	–	–	–	–	–	–	–	–	–
VPL-B1303F	4000	–	–	115.3	–	91.5	–	80.9*	–	72.7	–	–	–	–	–	–
VPL-B1304C	2150	149.7	–	118.8	106.2*	–	92.0*	–	–	–	–	–	–	–	–	–
VPL-B1304E	3500	–	–	118.8	103.8	–	90.0*	–	78.2	–	–	–	–	–	–	–
VPL-B1306C	2500	156.0	–	123.8	–	104.8*	91.2	–	–	–	–	–	–	–	–	–
VPL-B1306F	4250	–	–	123.8	–	98.3	–	85.9	–	–	76.5*	–	–	–	–	–
VPL-B1651C	2750	180.9	–	143.6	–	121.5*	–	102.5*	–	–	–	–	–	–	–	–
VPL-B1651F	4750	–	–	143.6	–	114.0	–	99.6	–	–	–	85.4*	–	–	–	–
VPL-B1652C	2700	192.5	–	152.8	133.5	–	–	109.7*	–	–	–	–	–	–	–	–
VPL-B1652F	4000	–	–	152.8	133.5	–	112.6	–	–	96.3	–	–	–	–	–	–
VPL-B1653C	2300	200.2	–	158.9	142.1*	–	120.4*	–	–	–	–	–	–	–	–	–
VPL-B1653D	3000	–	–	158.9	145.6*	130.6*	–	110.2	–	–	–	–	–	–	–	–
VPL-B1654B	1850	205.7	179.7	–	156.8*	133.0*	–	–	–	–	–	–	–	–	–	–
VPL-B1654D	3000	–	–	163.3	142.7	129.6	–	113.2	–	–	–	–	–	–	–	–

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.



## Axial Load Force Ratings (maximum radial load) for Brake Motors

Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	31.0	–	23.0	–	17.0	–	14.0 *	–	–	–	–	–	–	–	–
VPL-A1001M	6500	–	–	–	19.0	–	15.0	–	–	–	12.0	–	–	–	10.0	–
VPL-A1002C	3000	34.0	–	25.0	–	18.0	–	15.0	–	–	–	–	–	–	–	–
VPL-A1002F	5000	–	–	25.0	21.0	–	–	15.0	–	–	–	12.0	–	–	–	–
VPL-A1003C	2250	36.0	–	26.0	22.0	–	18.0 *	–	–	–	–	–	–	–	–	–
VPL-A1003E	3750	36.0	–	26.0	–	19.0	–	–	–	15.0 *	–	–	–	–	–	–
VPL-A1003F	5500	–	–	–	22.0	–	18.0	–	–	14.0	–	–	12.0	–	–	–
VPL-A1152B	2150	50.0	–	37.0	31.0	–	26.0 *	–	–	–	–	–	–	–	–	–
VPL-A1152E	3300	51.0	–	37.0	–	27.0	–	–	22.0 *	–	–	–	–	–	–	–
VPL-A1152F	5000	–	–	37.0	–	27.0	–	23.0	–	–	–	18.0	–	–	–	–
VPL-A1153C	2300	53.0	–	39.0	32.0	–	27.0 *	–	–	–	–	–	–	–	–	–
VPL-A1303B	1950	46.0	–	34.0	28.0	25.0 *	–	–	–	–	–	–	–	–	–	–
VPL-A1303F	4000	–	–	34.0	–	25.0	–	21.0	–	18.0	–	–	–	–	–	–
VPL-A1304A	1600	48.0	40.0	36.0 *	–	29.0 *	–	–	–	–	–	–	–	–	–	–
VPL-A1304D	3000	48.0	–	36.0	–	26.0	–	22.0	–	–	–	–	–	–	–	–
VPL-A1306C	2000	52.0	–	42.0 *	33.3 *	28.0	–	–	–	–	–	–	–	–	–	–
VPL-B1001M	6000	–	–	–	–	17.0	–	14.0	–	12.0	–	–	–	10.0	–	–
VPL-B1002E	3300	34.0	–	25.0	–	18.0	–	–	15.0 *	–	–	–	–	–	–	–
VPL-B1002M	6000	–	–	–	21.0	–	–	15.0	–	–	13.0	–	–	11.0	–	–
VPL-B1003C	2500	36.0	–	26.0	22.0	–	18.0	–	–	–	–	–	–	–	–	–
VPL-B1003F	4750	–	–	26.0	22.0	–	–	16.0	–	–	–	13.0 *	–	–	–	–
VPL-B1003T	7000	–	–	–	22.0	–	18.0	–	–	–	13.0	–	–	–	–	11.0
VPL-B1152C	2250	51.0	–	37.0	31.0	–	26.0 *	–	–	–	–	–	–	–	–	–
VPL-B1152F	4500	–	–	37.0	–	27.0	–	23.0	–	–	19.0	–	–	–	–	–
VPL-B1152T	6500	–	–	–	31.0	–	25.0	–	–	20.0	–	–	–	–	16.0	–
VPL-B1153E	3200	53.0	–	39.0	–	29.0	–	–	23.0 *	–	–	–	–	–	–	–
VPL-B1153F	5000	–	–	39.0	–	29.0	–	24.0	–	–	19.0	–	–	–	–	–
VPL-B1303C	2250	46.0	–	34.0	28.0	–	24.0 *	–	–	–	–	–	–	–	–	–
VPL-B1303F	4000	–	–	34.0	–	25.0	–	21.0 *	–	18.0	–	–	–	–	–	–
VPL-B1304C	2150	48.0	–	36.0	31.0 *	–	25.0 *	–	–	–	–	–	–	–	–	–
VPL-B1304E	3500	–	–	36.0	30.0	–	25.0 *	–	20.0	–	–	–	–	–	–	–
VPL-B1306C	2500	52.0	–	38.0	–	31.0 *	25.0	–	–	–	–	–	–	–	–	–
VPL-B1306F	4250	–	–	38.0	–	28.0	–	24.0	–	–	20.0 *	–	–	–	–	–
VPL-B1651C	2750	58.0	–	43.0	–	34.0 *	–	27.0 *	–	–	–	–	–	–	–	–
VPL-B1651F	4750	–	–	43.0	–	31.0	–	26.0	–	–	–	21.0 *	–	–	–	–
VPL-B1652C	2700	64.0	–	47.0	39.0	–	–	30.0 *	–	–	–	–	–	–	–	–
VPL-B1652F	4000	–	–	47.6	40.0	–	32.0	–	–	26.1	–	–	–	–	–	–
VPL-B1653C	2300	68.0	–	50.0	43.0 *	–	35.0 *	–	–	–	–	–	–	–	–	–
VPL-B1653D	3000	–	–	50.7	45.3 *	39.3 *	–	31.5	–	–	–	–	–	–	–	–
VPL-B1654B	1850	71.0	59.0	–	50.0 *	40.0 *	–	–	–	–	–	–	–	–	–	–
VPL-B1654D	3000	–	–	52.9	44.4	39.2	–	32.9	–	–	–	–	–	–	–	–

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

## Axial Load Force Ratings (zero radial load) for Brake Motors

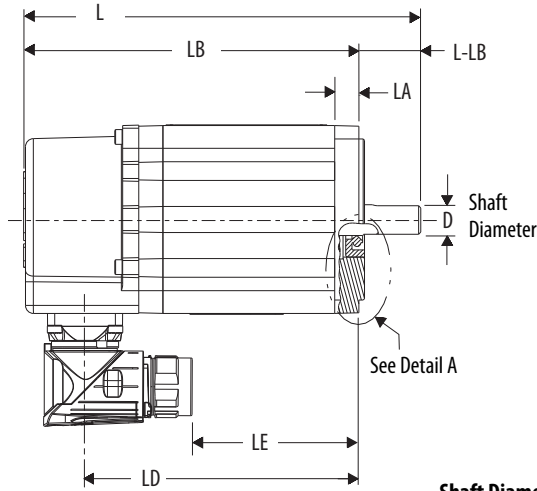
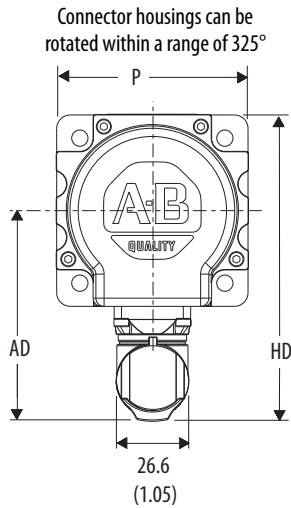
Motor Cat. No. (1)	Rated Speed, max rpm	RPM														
		500 kgf	750 kgf	1000 kgf	1500 kgf	2000 kgf	2500 kgf	3000 kgf	3500 kgf	4000 kgf	4500 kgf	5000 kgf	5500 kgf	6000 kgf	6500 kgf	7000 kgf
VPL-A1001C	2800	49.4	–	36.5	–	27.0	–	23.4 *	–	–	–	–	–	–	–	–
VPL-A1001M	6500	–	–	–	30.6	–	24.5	–	–	–	19.0	–	–	–	16.2	–
VPL-A1002C	3000	49.4	–	36.5	–	27.0	–	22.7	–	–	–	–	–	–	–	–
VPL-A1002F	5000	–	–	36.5	30.6	–	–	22.7	–	–	–	18.2	–	–	–	–
VPL-A1003C	2250	49.4	–	36.5	30.6	–	25.7 *	–	–	–	–	–	–	–	–	–
VPL-A1003E	3750	49.4	–	36.5	–	27.0	–	–	–	20.6 *	–	–	–	–	–	–
VPL-A1003F	5500	–	–	–	30.6	–	24.5	–	–	20.0	–	–	17.4	–	–	–
VPL-A1152B	2150	68.3	–	50.5	42.4	–	36.2 *	–	–	–	–	–	–	–	–	–
VPL-A1152E	3300	68.3	–	50.5	–	37.4	–	–	30.1 *	–	–	–	–	–	–	–
VPL-A1152F	5000	–	–	50.5	–	37.4	–	31.4	–	–	–	25.1	–	–	–	–
VPL-A1153C	2300	68.3	–	50.5	42.4	–	35.2 *	–	–	–	–	–	–	–	–	–
VPL-A1303B	1950	68.3	–	50.5	42.4	37.8 *	–	–	–	–	–	–	–	–	–	–
VPL-A1303F	4000	–	–	50.5	–	37.4	–	31.4	–	27.7	–	–	–	–	–	–
VPL-A1304A	1600	68.3	57.2	51.1 *	–	41.2 *	–	–	–	–	–	–	–	–	–	–
VPL-A1304D	3000	68.3	–	50.5	–	37.4	–	31.4	–	–	–	–	–	–	–	–
VPL-A1306C	2000	68.3	–	55.7 *	44.3	37.4	–	–	–	–	–	–	–	–	–	–
VPL-B1001M	6000	–	–	–	–	27.0	–	22.7	–	20.0	–	–	–	16.8	–	–
VPL-B1002E	3300	49.4	–	36.5	–	27.0	–	–	21.8 *	–	–	–	–	–	–	–
VPL-B1002M	6000	–	–	–	30.6	–	–	22.7	–	–	19.0	–	–	16.8	–	–
VPL-B1003C	2500	49.4	–	36.5	30.6	–	24.5	–	–	–	–	–	–	–	–	–
VPL-B1003F	4750	–	–	36.5	30.6	–	–	22.7	–	–	–	18.6 *	–	–	–	–
VPL-B1003T	7000	–	–	–	30.6	–	24.5	–	–	–	19.0	–	–	–	–	15.7
VPL-B1152C	2250	68.3	–	50.5	42.4	–	35.5 *	–	–	–	–	–	–	–	–	–
VPL-B1152F	4500	–	–	50.5	–	37.4	–	31.4	–	–	26.3	–	–	–	–	–
VPL-B1152T	6500	–	–	–	42.4	–	33.9	–	–	27.7	–	–	–	–	22.4	–
VPL-B1153E	3200	68.3	–	50.5	–	37.4	–	–	30.5 *	–	–	–	–	–	–	–
VPL-B1153F	5000	–	–	50.5	–	37.4	–	31.4	–	–	–	25.1	–	–	–	–
VPL-B1303C	2250	68.3	–	50.5	42.4	–	35.5 *	–	–	–	–	–	–	–	–	–
VPL-B1303F	4000	–	–	50.5	–	37.4	–	31.8 *	–	27.7	–	–	–	–	–	–
VPL-B1304C	2150	68.3	–	50.5	43.6 *	–	36.2 *	–	–	–	–	–	–	–	–	–
VPL-B1304E	3500	–	–	50.5	42.4	–	35.2 *	–	29.3	–	–	–	–	–	–	–
VPL-B1306C	2500	68.3	–	50.5	–	40.6 *	33.9	–	–	–	–	–	–	–	–	–
VPL-B1306F	4250	–	–	50.5	–	37.4	–	31.4	–	–	27.0 *	–	–	–	–	–
VPL-B1651C	2750	90.1	–	66.7	–	53.7	–	43.0 *	–	–	–	–	–	–	–	–
VPL-B1651F	4750	–	–	66.7	–	49.4	–	41.4	–	–	–	33.9 *	–	–	–	–
VPL-B1652C	2700	90.1	–	66.7	55.9	–	–	43.3 *	–	–	–	–	–	–	–	–
VPL-B1652F	4000	–	–	66.7	55.9	–	44.8	–	–	36.5	–	–	–	–	–	–
VPL-B1653C	2300	90.1	–	66.7	57.6 *	–	46.4 *	–	–	–	–	–	–	–	–	–
VPL-B1653D	3000	–	–	66.7	59.5 *	51.7 *	–	41.4	–	–	–	–	–	–	–	–
VPL-B1654B	1850	90.1	75.6	–	63.2 *	51.1 *	–	–	–	–	–	–	–	–	–	–
VPL-B1654D	3000	–	–	66.7	55.9	49.4	–	41.4	–	–	–	–	–	–	–	–

(1) 1.0 kgf = 2.2 lbf or 9.8 N. An asterisk (\*) indicates a load rating measured at an rpm value that is less than the value listed for that column.

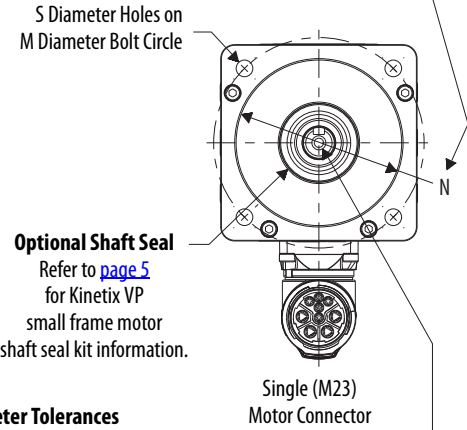
## Dimensions - Kinetix VP Low Inertia Motors

### VPL-A/B063xx and VPL-A/B075xx Motor Dimensions

Dimensions are in mm (in.)



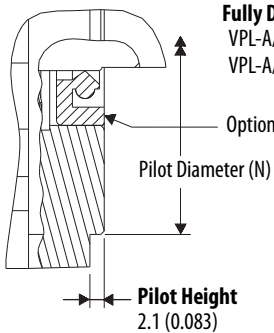
**Pilot Diameter Tolerances**  
 VPL-A/B063xx Motors:  
 Ø 39.995...40.011 (1.5746...1.5752)  
 VPL-A/B075xx Motors:  
 Ø 59.993...60.012 (2.3619...2.3627)



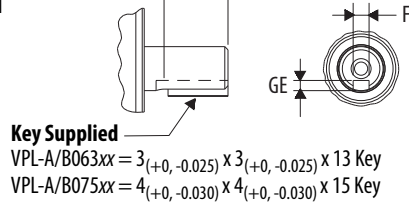
**Shaft Diameter Tolerances**  
 VPL-A/B063xx Motors:  
 Ø 8.998...9.007 (0.3543...0.3546)  
 VPL-A/B075xx Motors:  
 Ø 10,997...11.008 (0.4330...0.4334)

**Shaft-end Threaded Hole**  
 VPL-A/B063xx Motors:  
 Thread - M3 x 0.5-6H  
 Thread Depth - 9.0 (0.35)  
 VPL-A/B075xx Motors:  
 Thread - M4 x 0.7-6H  
 Thread Depth - 10.0 (0.39)

**Detail A**



**Shaft Detail with Key**



Shaft, Pilot, and Keyway Tolerances	VPL-A/B063xx	VPL-A/B075xx
Shaft Runout (T.I.R.)	0.030 (0.0012)	0.035 (0.0014)
Pilot Eccentricity (T.I.R.)	0.08 (0.0031)	0.08 (0.0031)
Max Face Runout (T.I.R.)	0.08 (0.0031)	0.08 (0.0031)
Keyway Depth (GE)	1.80...1.90 (0.071...0.075)	2.50...2.60 (0.098...0.102)
Keyway Width (F)	2.971...2.996 (0.117...0.118)	3.970...4.000 (0.156...0.158)

## VPL-A/B063xx and VPL-A/B075xx Motor Dimensions

Motor Cat. No.	AD mm (in.)	HD mm (in.)	LA mm (in.)	LD <sup>(1)</sup> mm (in.)	LE <sup>(1)</sup> mm (in.)	L <sup>(1)</sup> mm (in.)	LB <sup>(1)</sup> mm (in.)	L-LB <sup>(2)</sup> mm (in.)	D <sup>(4)</sup> mm (in.)	M mm (in.)	S <sup>(3)</sup> mm (in.)	N <sup>(4)</sup> mm (in.)	P mm (in.)	GE <sup>(4)</sup> mm (in.)	F <sup>(4)</sup> mm (in.)
VPL-A/B0631				100.2 (3.94)	60.3 (2.37)	143.1 (5.63)	123.1 (4.85)								
VPL-A/B0632	69.5 (2.74)	97.0 (3.82)	9.0 (0.35)	125.2 (4.93)	85.3 (3.36)	168.1 (6.61)	148.1 (5.83)	20.0 (0.787)	9.0 (0.354)	63.0 (2.480)	5.80 (0.234)	40.0 (1.575)	55.0 (2.17)	1.90 (0.075)	3.0 (0.118)
VPL-A/B0633				150.2 (5.91)	110.3 (4.34)	193.1 (7.59)	173.1 (6.81)								
VPL-A/B0751				102.0 (4.02)	62.1 (2.44)	147.9 (5.82)	124.9 (4.92)								
VPL-A/B0752	77.0 (3.03)	112.0 (4.41)	9.0 (0.35)	127.0 (5.00)	87.1 (3.43)	172.9 (6.80)	149.9 (5.90)	23.0 (0.906)	11.0 (0.433)	75.0 (2.953)	5.80 (0.234)	60.0 (2.362)	70.0 (2.76)	2.60 (0.102)	4.0 (0.157)
VPL-A/B0753				152.0 (5.98)	112.1 (4.41)	197.9 (7.79)	174.9 (6.89)								

(1) If ordering an VPL-A/B063xx or VPL-A/B075xx motor with brake, add 30.6 mm (1.20 in.) to dimension L, LB, LE, and LD.

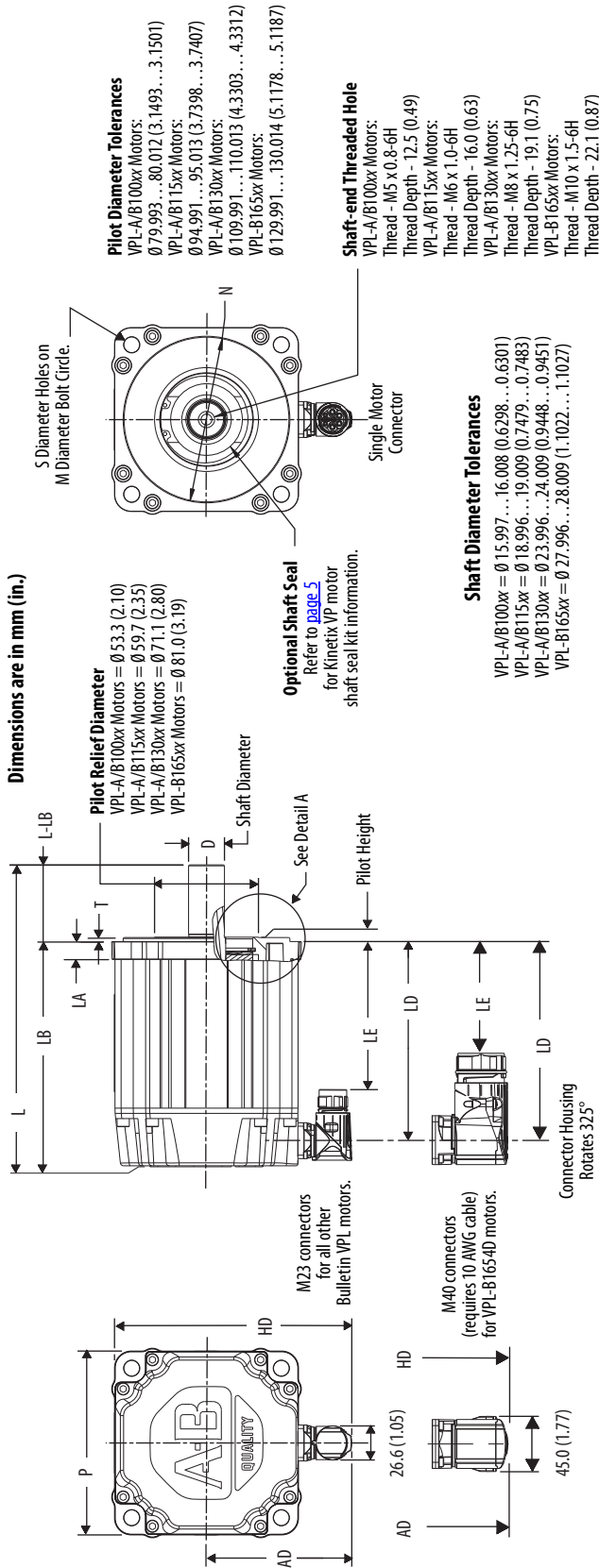
(2) Tolerance for this dimension is  $\pm 0.7$  mm ( $\pm 0.028$  in.).

(3) Tolerance for this dimension is  $+0.3$ ,  $-0.0$  mm ( $\pm 0.006$  in.).

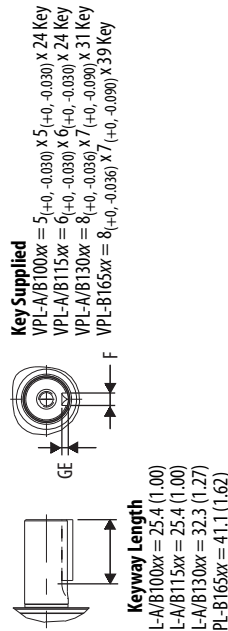
(4) For keyway, shaft diameter, and pilot diameter tolerances, refer to [page 20](#).

Motors are designed to metric dimensions. Inch dimensions are approximate conversions from millimeters. Dimensions without tolerances are for reference.

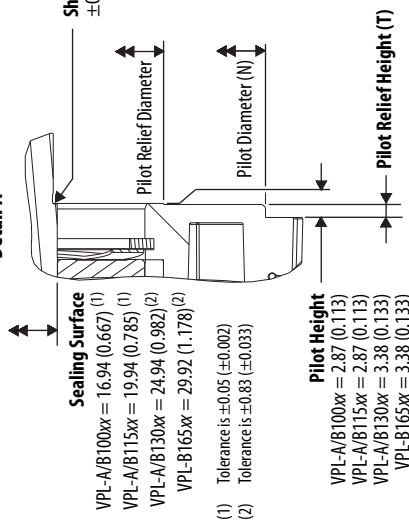
VPL-A/B100xx, VPL-A/B115xx, VPL-A/B130xx, and VPL-B165xx Motor Dimensions (SpeedTec DIN connectors)



Shaft Detail with Key



Detail A



Motor Connectors on VPL-B165xx Motors	Motor Cat. No.	Shaft, Pilot, and Keyway Tolerances	VPL-A/B100xx	VPL-A/B115xx	VPL-A/B130xx VPL-B165xx
M23 Connector	VPL-B1651x VPL-B1652x VPL-B1653x VPL-B1654B	Shaft Runout (T.I.R.)	0.04 (0.0016)		
		Pilot Eccentricity (T.I.R.)	0.078 (0.0031)		
		Max Face Runout (T.I.R.)	0.078 (0.0031)		
M40 Connector	VPL-B1654D	Keyway Depth (GE)	3.00...3.10 (0.118...0.122)	3.50...3.60 (0.138...0.142)	4.00...4.20 (0.158...0.165)
		Keyway Width (F)	4.97...5.00 (0.196...0.197)	5.97...6.00 (0.235...0.236)	7.96...8.00 (0.314...0.315)

VPL-A/B100xx, VPL-A/B115xx, VPL-A/B130xx, and VPL-B165xx Motor Dimensions (SpeedTec DIN connectors)

Motor Cat. No.	AD mm (in.)	HD mm (in.)	T mm (in.)	LA mm (in.)	LD <sup>(1)</sup> mm (in.)	LE <sup>(1)</sup> mm (in.)	L <sup>(1)</sup> mm (in.)	LB <sup>(1)</sup> mm (in.)	L-LB <sup>(2)</sup> mm (in.)	D <sup>(3)</sup> mm (in.)	M mm (in.)	S mm (in.)	N <sup>(3)</sup> mm (in.)	P mm (in.)	GE <sup>(3)</sup> mm (in.)	F <sup>(3)</sup> mm (in.)
VPL-A/B1001					108.7 (4.28)	68.9 (2.71)	169.8 (6.68)	129.8 (5.11)								
VPL-A/B1002	86.5 (3.40)	131.2 (5.17)	2.74 (0.108)	9.90 (0.39)	134.1 (5.28)	94.3 (3.71)	195.2 (7.68)	155.2 (6.11)	40.0 (1.575)	16.0 (0.630)	100.0 (3.937)	7.00 <sup>(4)</sup> (0.283)	80.0 (3.15)	89.4 (3.52)	3.0 (0.118)	5.0 (0.197)
VPL-A/B1003					159.5 (6.28)	119.7 (4.71)	220.6 (8.68)	180.6 (7.11)								
VPL-A/B1152	90.8 (3.58)	140.0 (5.51)	2.74 (0.108)	10.16 (0.40)	130.6 (5.14)	90.7 (3.57)	191.5 (7.54)	151.6 (5.97)	40.0 (1.575)	19.0 (0.748)	115.0 (4.528)	10.00 <sup>(4)</sup> (0.401)	95.0 (3.74)	98.3 (3.87)	3.5 (0.138)	6.0 (0.236)
VPL-A/B1153					156.0 (6.14)	116.1 (4.57)	216.9 (8.54)	177.0 (6.97)								
VPL-A/B1303					159.3 (6.27)	119.4 (4.70)	230.2 (9.06)	180.3 (7.10)								
VPL-A/B1304	98.6 (3.88)	155.4 (6.12)	2.74 (0.108)	12.19 (0.48)	184.7 (7.27)	144.8 (5.70)	255.6 (10.06)	205.7 (8.10)	50.0 (1.969)	24.0 (0.945)	130.0 (5.118)	10.00 <sup>(4)</sup> (0.401)	110.0 (4.331)	113.7 (4.48)	4.0 (0.158)	8.0 (0.315)
VPL-A/B1306					235.5 (9.27)	195.6 (7.70)	306.5 (12.06)	256.5 (10.10)								
VPL-B1651					155.4 (6.12)	115.6 (4.55)	235.5 (9.27)	175.6 (6.92)								
VPL-B1652	113.3 (4.46)	185.0 (7.28)	3.12 (0.123)	14.0 (0.55)	206.2 (8.12)	166.4 (6.55)	286.3 (11.27)	226.4 (8.92)	60.0 (2.362)	28.0 (1.102)	165.0 (6.496)	12.00 <sup>(5)</sup> (0.481)	130.0 (5.118)	143.5 (5.65)	4.0 (0.158)	8.0 (0.315)
VPL-B1653					257.0 (10.12)	217.2 (8.55)	337.1 (13.27)	277.2 (10.92)								
VPL-B1654B					307.8 (12.12)	268.0 (10.55)	388.0 (15.28)	328.0 (12.92)								
VPL-B1654D	132.9 (5.23)	204.6 (8.06)			306.8 (12.08)	235.8 (9.28)										

(1) If ordering a VPL-A/B100xx-xxx4xx motor with brake, add 34.5 mm (1.36 in.) to dimensions L, LB, LE, and LD.  
 If ordering a VPL-A/B115xx-xxx4xx motor with brake, add 48.5 mm (1.91 in.) to dimensions L, LB, LE, and LD.  
 If ordering a VPL-A/B130xx-xxx4xx motor with brake, add 48.5 mm (1.91 in.) to dimensions L, LB, LE, and LD.  
 If ordering a VPL-B165xx-xxx4xx motor with brake, add 51.5 mm (2.03 in.) to dimensions L, LB, LE, and LD.

(2) Tolerance for this dimension is ±0.7 mm (±0.028 in.).

(3) For keyway, shaft diameter, and pilot diameter tolerances, refer to [page 22](#).

(4) Tolerance for this dimension is +0.36, -0.0 mm (±0.007 in.).

(5) Tolerance for this dimension is +0.43 -0.0 mm (±0.008 in.).

Motors are designed to metric dimensions. Inch dimensions are approximate conversions from millimeters. Dimensions without tolerances are for reference.