



IronHorse® VP1 DC Gearmotors

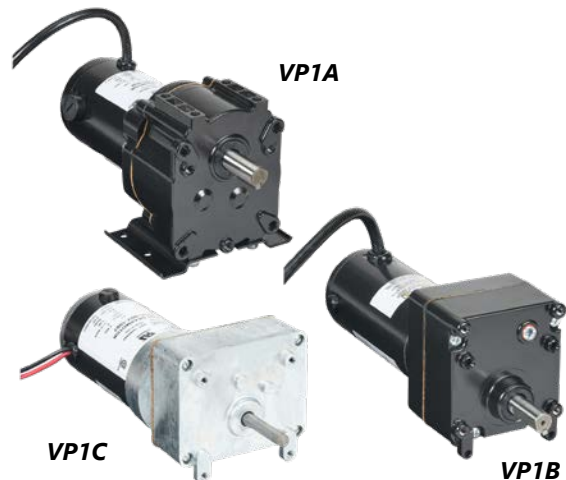
Series VP1 Parallel Shaft Gearmotors – 90 VDC

Torque range to 280 in-lbs and Speed range to 165rpm

Model Overview

IronHorse DC gearmotors are manufactured in the U.S.A. by a leading motor supplier with over 75 years experience delivering high-quality motors and gearmotors to the demanding U.S. market. VP1 series gearmotors provide 90 VDC motor voltage with new industry standard torque and speed ranges. Our supplier does 100% dynamic testing of the gearmotors before shipment.

IronHorse DC gearmotors are designed for use with adjustable SCR controls and drives or with PWM (pulse width modulated) adjustable speed drives. The motors can also be started “across-the-line” with a DC power source, but the system may see a sudden high current surge.



Gearmotor Features

- Available in 90 VDC
- Torque ranges from 13 – 280 in-lbs
- Speed ranges from 7 – 165rpm
- TENV enclosure
- Metal gears for long service life
- Reduced noise design
- IP40 environmental rating
- Class F insulation
- SCR rated
- Rugged diecast aluminum design
- VP1A, VP1VB - 36" Jacketed power cord; VP1C - 18in flying leads
- Externally replaceable DC brushes; available for purchase
- Double-shielded bearings
- Dynamically balanced armature
- Electrically reversible
- Orientation restrictions vary depending on model
- Not intended for DC power generation
- UL recognized (E365956), CSA certified (259724), RoHS

Applications

- Conveyors
- Turntables
- Pick and place
- Indexers
- Small machinery
- Where reduced speed and/or increased torque are required



IronHorse® VP1 DC Gearmotors

VP1A Parallel Shaft Gearmotors – 90 VDC, 1/20 to 1/4hp



VP1A Features:

- Torque range: 28 - 280 in-lbs
- Speed range: 18 - 165rpm
- Permanent lubrication (oil)
- 36" jacketed power cord
- Foot or Face mount



VP1A-90V-2034

Gearmotor Specifications – VP1A Series Parallel Shaft													
Part Number	Price	Voltage (VDC)	Motor HP	Speed (rpm)	Gear Ratio	F/L Torque (lb-in)	F/L Current (A) *	Shaft Dia (in)	Overhung Load (lb)	Axial/Thrust Load (lb)	Replacement Brush	Weight (lb)	Drawing Link
VP1A-90V-2034	\$-06jgf:	90	1/20	34	57.7:1	82	0.94	5/8	150	75	MTPM-BRUSH-6	9	PDF
VP1A-90V-2051	\$-06jgg:			51	34:1	55							PDF
VP1A-90V-2111	\$-06jgh:			111	17.5:1	28							PDF
VP1A-90V-7018	\$-06jgi:		1/8	18	103:1	150	0.82					12	PDF
VP1A-90V-7021	\$-06jjj:			21	88:1	280	1.30						PDF
VP1A-90V-7026	\$-06jga:			26	69:1		1.58						PDF
VP1A-90V-7032	\$-06jgb:			32	58:1	220	1.50						PDF
VP1A-90V-7054	\$-06jgc:			54	34:1	138	1.51						PDF
VP1A-90V-7061	\$-06jgd:			61	30:1	113	1.42						PDF
VP1A-90V-7091	\$-06jge:			91	20:1	86	1.58						PDF
VP1A-90V-7165	\$-06jgk:			165	11:1	47	1.57						PDF
VP1A-90V-8042	\$-06jgl:		1/4	42	57.7:1	280	2.45					13	PDF
VP1A-90V-8083	\$-06jgn:			83	30:1	160	2.53						PDF

* Current must be limited so that it does not exceed 125% of the gearmotor rated current.

Mounting Orientation Guidelines

Shaft Horizontal Rightside Up	Shaft Vertical Down	Shaft Vertical Up	Shaft Horizontal Upside Down	Shaft Horizontal Base Rolled 90°



IronHorse® VP1 DC Gearmotors

VP1B and VP1C Parallel Shaft Gearmotors – 90 VDC, 1/50 to 1/11hp



VP1B Features:

- Torque range: 20 - 100 in-lbs
- Speed range: 20 - 139rpm
- Permanent lubrication (oil)
- 36" jacketed power cord
- Face mount only

VP1C Features:

- Torque range: 13 - 50 in-lbs
- Speed range: 7 - 94rpm
- Permanent lubrication (grease)
- 18" flying leads
- Face mount only



VP1B-90V-2037



VP1C-90V-1007

Gearmotor Specifications – VP1B and VP1C Series Parallel Shaft

Part Number	Price	Voltage (VDC)	Motor HP	Speed (rpm)	Gear Ratio	F/L Torque (lb-in)	F/L Current (A) *	Shaft Dia (in)	Overhung Load (lb)	Axial/Thrust Load (lb)	Replacement Brush	Weight (lb)	Drawing Link
<u>VP1B-90V-2037</u>	\$-06jgo:	90	1/25	37	79:1	74	0.67	1/2	150	75	<u>MTPM-BRUSH-5</u>	6	<u>PDF</u>
<u>VP1B-90V-2139</u>	\$-06jgp:			139	16:1	20	0.63						<u>PDF</u>
<u>VP1B-90V-4020</u>	\$-06jgq:		1/17	20	102:1	100	0.50						<u>PDF</u>
<u>VP1B-90V-4071</u>	\$-06jgs:			71	31:1	40	0.64						<u>PDF</u>
<u>VP1B-90V-5071</u>	\$-06jgt:		1/11		52:1	83	1.29						<u>PDF</u>
<u>VP1B-90V-5139</u>	\$-06jgu:			139	24:1	42	1.19						<u>PDF</u>
<u>VP1C-90V-1007</u>	\$-06jgv:	90	1/50	7	386:1		0.15	5/16	150	75	<u>MTPM-BRUSH-7</u>	6	<u>PDF</u>
<u>VP1C-90V-1011</u>	\$-06jgx:			11	269:1	50	0.19						<u>PDF</u>
<u>VP1C-90V-1021</u>	\$-06jgy:		1/32	21	120:1		0.28						<u>PDF</u>
<u>VP1C-90V-2029</u>	\$-06jgz:		1/25	29	83.5:1	40	0.31						<u>PDF</u>
<u>VP1C-90V-2047</u>	\$-06jgj:			47	55:1	26	0.33						<u>PDF</u>
<u>VP1C-90V-2094</u>	\$-06jgt:			94	26:1	13	0.31						<u>PDF</u>

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Mounting Orientation Guidelines

Shaft Horizontal Rightside Up	Shaft Vertical Down	Shaft Vertical Up	Shaft Horizontal Upside Down	Shaft Horizontal Base Rolled 90°



IronHorse® DC Gearmotor Replacement Parts

Replacement Parts for Small Frame DC Motors and DC Gearmotors

Brush replacement kits are for use in any Ironhorse DC gearmotors and small frame DC motors. Reference motor technical pages for brush cross reference. The appropriate brushes are also listed as recommended items on the webstore item page for each motor.

Replacement Parts for Small Frame DC Motors and DC Gearmotors *		
Part Number	Price	Description
<u>MTPM-BRUSH-4</u>	\$-04j1:	IronHorse DC motor brushes, replacement. Package of 2. For use with IronHorse 1/4hp and 1/5hp 12 VDC or 24 VDC MTPM, MTGR, MTGP and VP1 series permanent magnet DC motors and gearmotors. (2) brush caps included.
<u>MTPM-BRUSH-5</u>	\$-04j2:	IronHorse DC motor brushes, replacement. Package of 2. For use with IronHorse 1/6hp or smaller 12 VDC or 24 VDC MTPM, MTGR, MTGP and VP1 series permanent magnet DC motors and gearmotors. (2) brush caps included.
<u>MTPM-BRUSH-6</u>	\$-04j3:	IronHorse DC motor brushes, replacement. Package of 2. For use with IronHorse 1/7hp and 1/8hp 90 VDC or 180 VDC MTPM, MTGR, MTGP and VP1 series permanent magnet DC motors and gearmotors. (2) brush caps included.
<u>MTPM-BRUSH-7</u>	\$-04j4:	IronHorse DC motor brushes, replacement. Package of 2. For use with IronHorse 1/10hp or smaller 90 VDC or 180 VDC MTPM, MTGR, MTGP and VP1 series permanent magnet DC motors and gearmotors. (2) brush caps included.
<u>MTGA-KIT-1</u>	\$-04j5:	IronHorse DC motor spare parts kit, for use with IronHorse 1/4hp and smaller MTPM, MTGR and MTGP series DC motors and gearmotors, includes (2) metal brush cap covers, (1) terminal box, (1) 1/8in shaft key and (1) 3/16in shaft key.



MTPM-BRUSH-4



MTGA-KIT-1