

MG2002 - PowlVac Field Checklist
Vacuum Interrupter Maintenance Table For “K>1”

VI Mfg.	Mitsubishi	Mitsubishi	Mitsubishi	G.E.	G.E.	C-H	C-H
VI Part #	10B12S	10B20H	10B30C	60153-G1 (50C) 0186L0739P060	60152-G1 (52C) 0186L0739P061	WL-35296 *WL-34999C	WL-35297 *WL-35315
VI Assembly #	50953-G2P	50954-G2P	50955-G2P	60149-G2P	60149-G1P	60500G05 *60500G10	60500G07 *60500G13
PowlVac Dash #	0, 1, 2, 5,	0, 1, 2, 5,	0, 1, 2, 5,	3, 4, A, B	3, 4, A, B	6, 7, C, D *8, 9, F, G	6, 7, C, D *8, 9, F, G
kV/MVA/kA rating	15/500/18kA	5/250/29kA 15/750/28kA	5/350/41kA 15/1000/37kA All 3000 amp	15/500/18kA	5/250/29kA	15/750/28kA	5/350/41kA 7.5/500/33kA 15/1000/37kA 15/50kA All 3000 amp
PowlVac Mechanism	PVS-1 PVS-3	PVS-1 PVS-3	PVS-1 PVS-3	PVS-3	PVS-3	PVS-3	PVS-3
Push Rod & Spring Color Code Force Length CL pin to pin	50934G13 Silver 79 lbs/inch 9.575”	50934G14 Blue 134 lbs/ inch 9.575”	50934G15 Red 300 lbs/ inch 9.575”	50934G13 Silver 79 lbs/inch 9.575”	50934G13 Silver 79 lbs/inch 9.575”	50934G16 Blue 134 lbs/ inch 9.887”	50934G15 (50934G17 50kA) Red 300 lbs/ inch 9.575” (9.887 50kA)
Continuous Current	1200, 2000	1200, 2000	1200, 2000, 3000	1200, 2000	1200, 2000	1200, 2000	1200, 2000, 3000
Contact Stroke (min - max)	.450"-.512"	.450"-.512"	.450"-.512"	.562"-.625"	.562"-.625"	.375" - .500"	.450"-.512" (.375" - .500" 50kA)
Push Rod Over Travel Nut gap (min – max)	.125"-.625"	.125"-.625"	.125"-.625"	.125"-.625"	.125"-.625"	.125"-.750"	.125"-.625" (.125-.750" 50kA)
Contact Resistance (maximum allowable)	1200-65 2000-55	1200-65 2000-55	1200-65 2000-55 3000-40	1200-90 2000-50	1200-90 2000-50	1200-60 2000-45	1200-60 2000-45 3000-40
Opening Speed (min)	36"/sec.	36"/sec.	36"/sec.	50"/sec.	50"/sec.	42"/sec.	42"/sec.
Opening Time	< 35ms	< 35ms	< 35ms	40-50ms	40-50ms	< 35ms - 3 cycle < 50ms - 5 cycle	< 35ms - 3 cycle < 50ms - 5 cycle
Closing Speed (min)	24"/sec.	24"/sec.	24"/sec.	25"/sec.	25"/sec.	24"/sec.	24"/sec.

Closing Time	< 80ms	< 80ms	< 80ms	< 80ms	< 80ms	< 80ms	< 80ms
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Measurement Parameters

Contact Stroke	Breaker "contact travel" in inches, determined by measuring the difference between the closed and open position of the lower contact block. Stroke will vary depending upon operational conditions.
Nut gap (Contact Spring Loading Force)	Dimensional measurement of the gap between the push rod operating yoke and the nut on the end of the push rod stud.
Contact Resistance	Maximum conductor path resistance, measured in micro ohms, from the upper to lower primary stabs.
Closing time	Time measurement in milliseconds, initiated at application of closing voltage and stopped at contact touch.
Closing speed	Determined by $0.25 S$ (S = breaker stroke measured in inches) divided by T_c (T_c = Elapsed time in milliseconds for the breaker contacts to travel the last 25% of the breaker closing stroke)
Opening time	Time measurement in milliseconds, initiated at application of opening voltage, and stopped at contact part.
Opening speed	Determined by $0.75 S$ (S = breaker stroke measured in inches) divided by T_t (T_t = Elapsed time in milliseconds for the breaker contacts to travel the first 75% of the breaker opening stroke)