# NetGain Motors, Inc.

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# WarP™ Motor Specifications ImPulse™

| Description | ImPulse 8 | WarP 8 | ImPulse 9 | WarP 9 | WarP 11 | WarP 13 |
|---|---|---|---|---|---|---|
| **CE Shaft, Advanced Timing** | | 00-08218 | 00-08259 | 00-08219 | 00-08311 | 08513 / 08413 |
| **CE Shaft, No Advance** | 203-06-4001A | 00-08206 | | 00-08209 | | |
| **No CE Shaft, Advanced Timing** | | 00-08210 | 00-08269 | 00-08239 | | |
| **No CE Shaft, No Advance** | | 00-08200 | | 00-08229 | | |
| **.750 CE Shaft, No Advance** | | 00-08203 | | | | |
| **Diameter** | 8 inches | 8 inches | 9.25 inches | 9.25 inches | 11.45 inches | 13.25 inches |
| **Length (case)** | 14.42 inches | 14.42 inches | 13.7 inches | 15.93 inches | 17.027 inches | 20.4 inches |
| **Weight** | 106 lbs. | 106 lbs. | 129 lbs. | 156 lbs. | 229 lbs. | 367 lbs. |
| **Bearing Type** | Steel, Sealed, high temp, all models | | | | | |
| **Drive Bearing** | 10222130 | 10222130 | 10222220 | 10222220 | 10222161 | 10222162 |
| **Com Bearing** | 10222220 | 10222220 | 10222140 | 10222140 | 10222240 | 10222240 |
| **Communtator** | Silver Interlocking Resin Core, all models | | | | | |
| **Com Bars** | 49 | 49 | 49 | 49 | | |
| **Springs #** | 11894400 * 8 | 11894400 * 8 | 11880020 * 8 | 11880020 * 8 | 11840510 * 8 | 11805010 * 8 |
| **Brushes #** | 10399300 * 4 | 10399300 * 4 | 10327002 * 2 | 10327002 * 2 | 10345064 * 4 | 10345060 |
| **Brush Holder** | 10499500 | 10499500 | 10427001 | 10427001 | 10440100 | 10445046 |
| **CE Head** | 10608203 | 10608203 | 10627001 | 10627001 | 10608311 | 10640031 |
| **DE Head** | 10908203 | 10908203 | 10908249 | 10908209 | 10908311 | 10973250 |
| **Armature** | 3002308203FN | 3002308203FN | 3002308249FN | 3002308209FN | 3002308311FN | 3002308513FN |
| **Field Coil Set** | 11108203 | 11108203 | 11108249 | 11133001 | 11145080 | 11108413 |
| **Insulation** | >Class “H” | >Class “H” | >Class “H” | >Class “H” | >Class “H” | >Class “H” |
| **Mounting Pattern** | WarP 8/ADC 8” | ADC 8” | WarP 8/ADC 8” | ADC 9” | WarP 9/ADC 9” | Foot |
| **DE Length** | 1.250” | 1.250” | 1.250” | 1.500” | 1.500” | 4.00” |
| **DE Diameter** | 1.1250” | 1.1250” | 1.1250” | 1.1250” | 1.1250” | 1.750” |
| **DE Keyway** | 0.250” * 0.130” | 0.250” * 0.130” | 0.250” * 0.130” | 0.250” * 0.130” | 0.250” * 0.130” | Splined |
| **DE Pilot** | 3.250” | 3.250” | 3.250” | 4.00” | 4.00” | NONE |
| **DE Mounting Hole** | 5/16” – 18 | 5/16” – 18 | 5/16” – 18 | 5/16” – 18 | 5/16” – 18 | ½” – 13 |
| **CE Length** | 1.850” | 1.850” | 2.00” | 2.00” | 2.00” | 2.00” |
| **CE Diameter** | 0.750” -> 0.875” | 0.750” -> 0.875” | 0.875” | 0.875” | 0.875” | Max 1.18” |
| **CE Mounting Hole** | ¼” – 20 | ¼” – 20 | ¼” – 20 | ¼” – 20 | ¼” – 20 | ¼” – 20 |
| **Case Steel** | 1020 or similar | 1020 or similar | 1020 or similar | 1020 or similar | 1020 or similar | 1020 or similar |
| **Shaft Steel** | 1144 stress proof | 1144 stress proof | 1144 stress proof | 1144 stress proof | 1144 stress proof | 1144 stress proof |