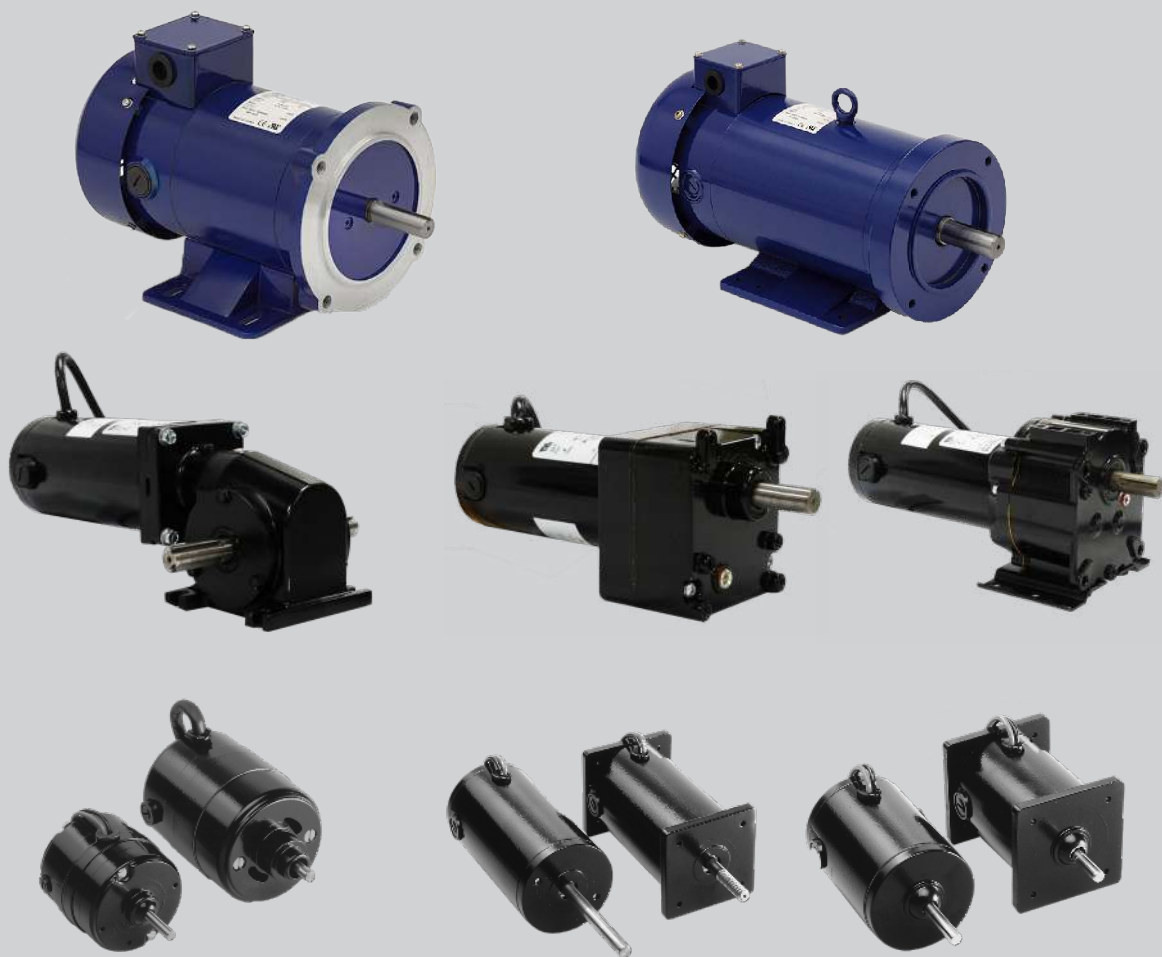


RAE DC Products - WEG Group

Permanent Magnet Motors &
Gearmotors



DC Motors and Gearmotors

WEG DC motors and gearmotors are designed for industrial-strength, continuous duty applications. Our broad range of PMDC motors, gearmotors and wound field motors can be modified to meet your specific application requirements. We offer off-the-shelf products and custom OEM designs. All the standard WEG DC motors and gearmotors are interchangeable with most major brands and are UL/ CSA approved to meet the needs of most general industries.

WEG DC products have been used in many industries for several decades, including:

- Packaging Equipment
- Material Handling
- Office Machinery
- Pumps
- Door/ Gate Openers
- Food Processing
- Lawn/ Garden
- Medical/ Lab Equipment



WEG can provide a complete custom industrial-duty DC-powered solution for all your application needs by developing a custom designed control for the motor. Our team has been developing DC controls for many industries for decades. Let us help you differentiate your product by working to your specifications. For more information on our DC control capabilities, please contact your local sales person or contact us at 815-385-3500.



NEMA Frame MT Motors

- SCR Rated
- 20:1 Constant torque speed range
- 1.0 Service Factor - Continuous Duty (S1)
- Rolled Steel Frame Construction
- C-Face with Removable bolt-on base
- Class F Insulation
- Ambient temperature up to 40°C
- Permanently lubricated ball bearings
- High Starting Torque and Increased Efficiency
- UL Recognized / CSA Approved and CE Marked
- Replaceable brushes



NEMA Frame PMDC Motors (90& 180VDC)

HP	Catalog Number	Full Load RPM	NEMA Frame	Voltage (DC)	Enclosure	Full Load Amps (A)	App. Weight	"L" Dimension Max	List Price	Mult. Symbol
1/4	MT-031	1750	56C	90	TEFC	2.90	19	9.63	\$516	DC1
	MT-041	1750	56C	180	TEFC	1.30	19	9.63	\$516	DC1
1/3	MT-033	1750	56C	90	TEFC	3.70	20	9.63	\$563	DC1
	MT-042	1750	56C	180	TEFC	1.85	20	9.63	\$563	DC1
1/2	MT-032	1750	56C	90	TEFC	5.20	22	10.24	\$644	DC1
	MT-043	1750	56C	180	TEFC	2.60	22	10.24	\$644	DC1
3/4	MT-035	1750	56C	90	TEFC	7.80	28	11.67	\$791	DC1
	MT-044	1750	56C	180	TEFC	3.90	28	11.67	\$791	DC1
1	MT-034	1750	56C	90	TEFC	10.4	32	13.05	\$930	DC1
	MT-037	1750	56C	180	TEFC	5.2	32	13.05	\$930	DC1
1-1/2	MT-038	1750	145TC	180	TEFC	8.0	47	15.60	\$1,590	DC1
2	MT-039	1750	145TC	180	TEFC	9.5	65	16.50	\$2,093	DC1
3	MT-040	1750	145TC	180	TEFC	14.0	72	18.70	\$2,930	DC1

Note: 1/4-1/2HP models have 4.45" frame diameter.
3/4 & 1HP models have 4.85" frame diameter.

NEMA Frame Low Voltage PMDC Motors (12 & 24VDC)

HP	Catalog Number	Full Load RPM	NEMA Frame	Voltage (DC)	Enclosure	Full Load Amps (A)	App. Weight	"L" Dimension Max	List Price	Mult. Symbol
1/4	MT-065	1750	56C	12	TENV	21.00	18	9.63	\$613	DC1
	MT-066	1750	56C	24	TENV	10.50	18	9.63	\$613	DC1
1/3	MT-067	1750	56C	12	TENV	28.00	19	9.63	\$674	DC1
	MT-068	1750	56C	24	TENV	14.00	19	9.63	\$645	DC1
1/2	MT-069	1750	56C	12	TENV	40.80	22	10.24	\$702	DC1
	MT-070	1750	56C	24	TENV	20.50	22	10.24	\$669	DC1
3/4	MT-071	1750	56C	12	TENV	61.20	28	11.67	\$773	DC1
	MT-072	1750	56C	24	TENV	28.30	28	11.67	\$701	DC1
1	MT-073	1750	56C	12	TENV	83.0	33	13.05	\$921	DC1
	MT-074	1750	56C	24	TENV	41.5	33	13.05	\$849	DC1

Technical drawing of the 1000 Series 1/2 HP Motor, showing front and top views with dimensions.

Front View Dimensions:

- Overall width: 6.1"
- Distance from mounting flange to centerline: 2.48"
- Mounting flange diameter: $\varnothing 5"$
- Shaft diameter: $\varnothing 0.625"$
- Shaft key: 3/16" SQ KEY 1-3/8" LONG
- Shaft to base distance: 1.874"
- Base diameter: $\varnothing 4.5"$
- Base to mounting flange distance: 1.118"
- Base to shaft distance: 7.09"
- Base to mounting flange distance (bottom): 2.027"
- Base to mounting flange distance (bottom): 2.632"
- Base to mounting flange distance (bottom): 2.913"
- Base to mounting flange distance (bottom): 4.055"
- Base to mounting flange distance (bottom): 4.33" SLOT
- Overall length: "L MAX"

Top View Dimensions:

- Overall diameter: 6.299"
- Distance from centerline to mounting flange: 4.882"
- Distance from centerline to mounting flange: 1"
- Distance from centerline to mounting flange: 3.524"
- Distance from centerline to mounting flange: 3.583"
- Distance from centerline to mounting flange: 2.756"
- Distance from centerline to mounting flange: 45°
- Distance from centerline to mounting flange: 45°
- Distance from centerline to mounting flange: 4-3/8" 16UNC
- Distance from centerline to mounting flange: $\varnothing 5.875"$
- Distance from centerline to mounting flange: $\varnothing 6.102"$
- Distance from centerline to mounting flange: 315"

Technical drawing of the 1000 Series Horizontal Split Case Centrifugal Pump, showing front, side, and end views with dimensions in inches.

Front View Dimensions:

- Top flange width: 2.40"
- Overall height: $\varnothing 6.85"$
- Motor mounting flange diameter: $\varnothing 6.653"$
- Motor mounting flange thickness: 0.875"
- Motor mounting flange outer diameter: $\varnothing 4.5"$
- Motor mounting flange width: 12"
- Motor mounting flange offset: 2.12"
- Motor mounting flange offset: 2.75"
- Motor mounting flange offset: 4"
- Motor mounting flange offset: 5"
- Motor mounting flange offset: 6.25"
- Motor mounting flange offset: 6.0 $\varnothing 3543"$
- Overall length: "L Max"

Side View Dimensions:

- Overall height: 4.311"
- Motor mounting flange thickness: 0.875"
- Motor mounting flange outer diameter: $\varnothing 4.5"$
- Motor mounting flange width: 12"
- Motor mounting flange offset: 2.12"
- Motor mounting flange offset: 2.75"
- Motor mounting flange offset: 4"
- Motor mounting flange offset: 5"
- Motor mounting flange offset: 6.25"
- Motor mounting flange offset: 6.0 $\varnothing 3543"$
- Overall length: "L Max"

End View Dimensions:

- Top flange width: 2.756"
- Overall height: 4.311"
- Motor mounting flange thickness: 0.875"
- Motor mounting flange outer diameter: $\varnothing 4.5"$
- Motor mounting flange width: 12"
- Motor mounting flange offset: 2.12"
- Motor mounting flange offset: 2.75"
- Motor mounting flange offset: 4"
- Motor mounting flange offset: 5"
- Motor mounting flange offset: 6.25"
- Motor mounting flange offset: 6.0 $\varnothing 3543"$
- Overall length: "L Max"

BRUSHES FOR RAE "MT" MOTORS

- | RAE PART NUMBER | MOTOR FRAME SIZE | MOTOR HP RANGE | List Price | Multipiler |
|-----------------|------------------|----------------|-------------|------------|
| MT-56BS | 56C | ¼ - ½ HP | \$34 | DC1 |
| MT-75BS | 56C | ¾ - 1 HP | \$34 | DC1 |
| MT-145BS | 145C | 1.5 – 3 HP | \$41 | DC1 |

M1600

The M1600 Series Permanent Magnet Motor features a compact 2.375" diameter design that provides continuous duty torque ratings.

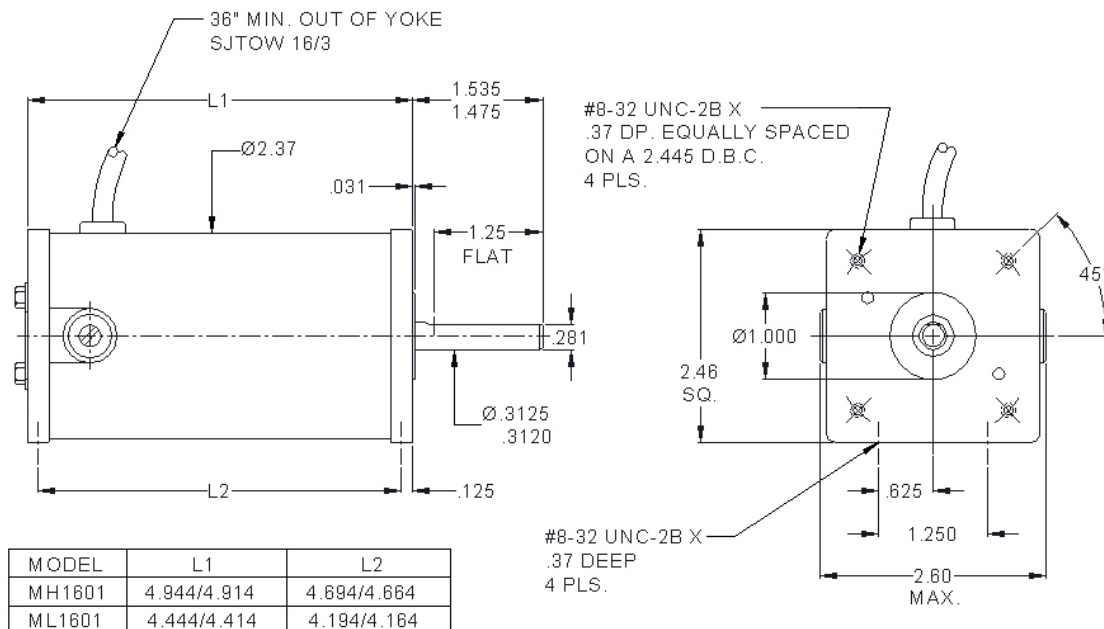
Features

- High Energy Ceramic Magnets
- Double Shielded Ball Bearings
- Dynamically Balanced Armature
- Reversible Design
- 36" Cord
- TENV Design
- Square End Bells
- Externally Replaceable Brushes
- Optional Sleeve Bearings
- Value added options and modifications available
- 1/30 hp - 1/8 hp
- Speeds up to 5000 rpm
- 12 - 115 VDC
- 0.312" Maximum Shaft Diameter
- 1.00" Standard Pilot Diameter
- Class "F" Insulation



Catalog Number	Hp	Voltage	RPM	FLA	List Price	Mult. Symbol
MH1601	1/20	90	1800	0.61	\$258	DC1
ML1601	1/20	12	1800	4.50	\$228	DC1

M1600 Dimensions



Quick Interchange Guide

WEG Catalog Number	Dayton	Leeson
MH1601	3XE22, 4Z142	M1110003.00
ML1601	3XE19, 4Z145	M1110006.00

Many other models available for Quick Interchange

M4000

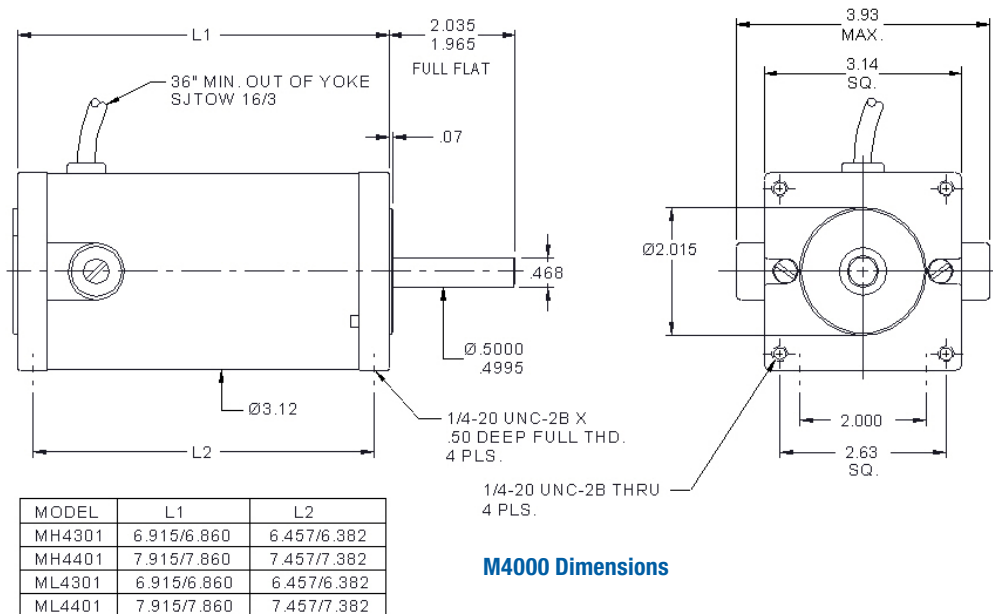
The M4000 Series Permanent Magnet Motor offers the design engineer a great deal of flexibility in a 3.12" diameter motor design that provides continuous duty torque ratings.

Features

- High Energy Ceramic Magnets
- Double Shielded Ball Bearings
- Dynamically Balanced Armature
- Reversible Design
- 36" Cord
- TENV Design
- Square End Bells
- Externally Replaceable Brushes
- Value added options and modifications available (1/30 hp - 1/4 hp)
- Speeds up to 3500 rpm
- 12 - 180 VDC
- 0.500" Maximum Shaft Diameter
- 2.015" Standard Pilot Diameter
- Class "F" Insulation



Catalog Number	Hp	Voltage	RPM	FLA	List Price	Mult. Symbol
MH4301	1/8	90	1800	1.30	\$337	DC1
MH4401	1/6	90	1800	1.80	\$344	DC1
ML4301	1/8	12	1800	10.20	\$351	DC1
ML4401	1/6	12	1800	15.20	\$372	DC1



M4000 Dimensions

Quick Interchange Guide

WEG Catalog Number	Dayton	Leeson
MH4301	4Z140	M1120027.00
MH4401	4Z528	M1120042.00
ML4301	4Z143	M1120044.00
ML4401	4Z529	M1120046.00

Many other models available for Quick Interchange

GIL100 Series

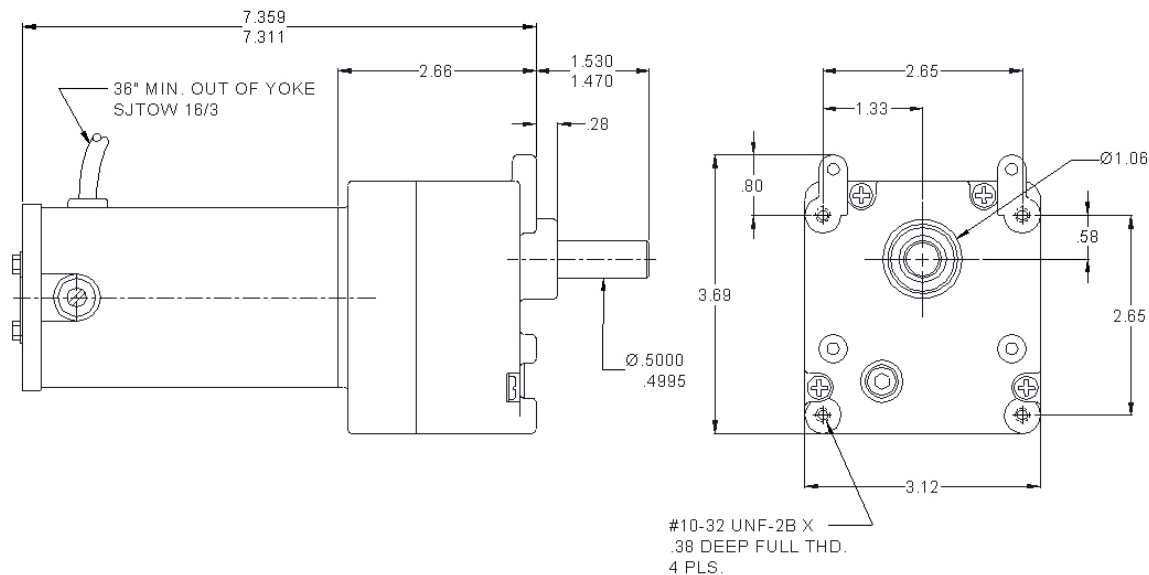
The GL100 Series Gearmotor is a versatile parallel shaft, medium torque design offering low noise levels and longer life for reliable service in any industrial application.

Features

- Gearbox Designed to AGMA Standards
- Oil Filled
- Needle Bearings (Gearbox)
- High Energy Ceramic Magnets
- Double Shielded Ball Bearings (Motor)
- Dynamically Balanced Armature
- Reversible Design
- 36" "Cord
- TENV Design
- Externally Replaceable Brushes
- Value Added Options and Modifications Available
- Rating up to 100 in-lbs
- Speeds up to 250 rpm
- 12 up to 115 VDC
- 16:1 up to 488:1 Ratios
- 0.500" Maximum Shaft Diameter
- Class "F" Insulation
- Interchangeable with most popular brands



Catalog Number	Gearmotor	Hp	Voltage	RPM	FLA	Ratios	FLT in-lbs	List Price	Mult. Symbol
GH1001	Parallel	1/20	90	4	0.20	488	100	\$470	DC1
GH1002	Parallel	1/20	90	6	0.24	340	100	\$470	DC1
GH1003	Parallel	1/17	90	10	0.30	172	100	\$470	DC1
GH1004	Parallel	1/17	90	40	0.44	52	50	\$460	DC1
GH1005	Parallel	1/17	90	65	0.46	31	30	\$460	DC1
GH1006	Parallel	1/17	90	90	0.46	16	20	\$460	DC1



GIL200

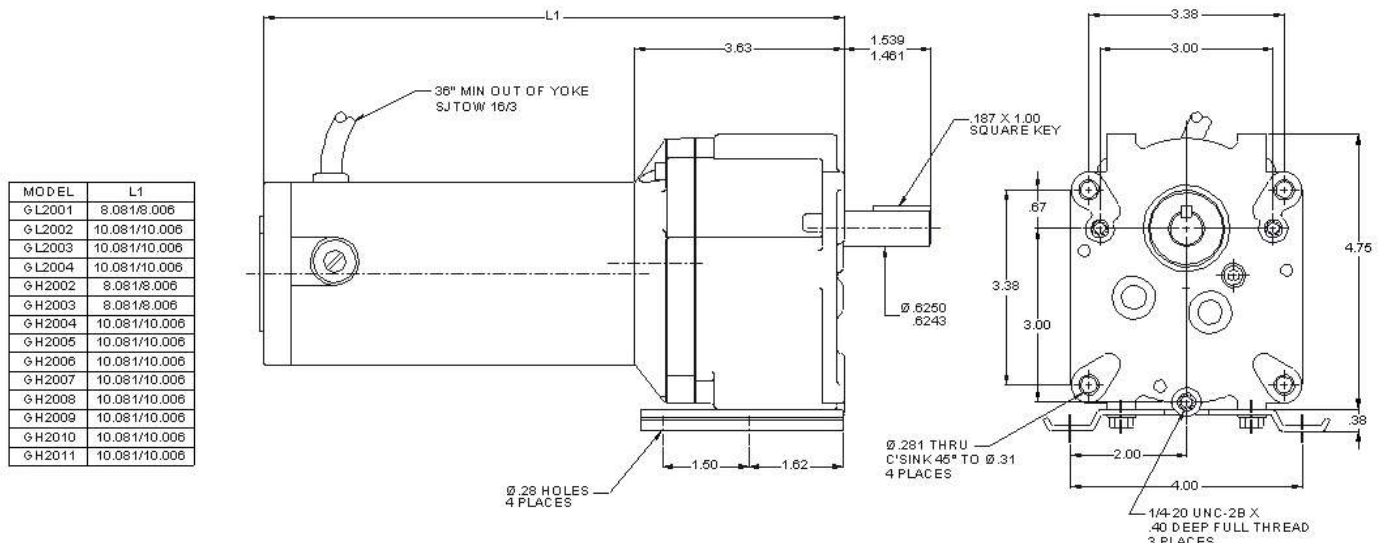
The GIL200 Series Gearmotor is a versatile parallel shaft design offering high torque, low noise levels and long life for reliable service in any industrial application.

Features

- TENV Design
- Gearbox Designed to AGMA Standards
- Oil Lubrication
- Needle Bearings (Gearbox)
- Double Shielded Ball Bearings (Motor)
- Dynamically Balanced Armature
- Reversible Design
- Externally Replaceable Brushes
- Value Added Options and Modifications Available
- Rating up to 300 in-lbs
- 12 up to 180 VDC
- 5:1 up to 343:1 Ratios
- 0.625" Standard Shaft Diameter
- Class "F" Insulation
- Interchangeable with most popular brands



Catalog Number	Gearmotor	Hp	Voltage	RPM	FLA	Ratios	FLT in-lbs	List Price	Mult. Symbol
GH2001	Parallel	1/20	90	6	0.59	343	290	\$651	DC1
GH2002	Parallel	1/20	90	9	0.75	202	268	\$651	DC1
GH2003	Parallel	1/20	90	18	0.80	103	150	\$651	DC1
GL2001	Parallel	1/20	12	6	3.89	343	290	\$656	DC1
GH2004	Parallel	1/8	90	21	1.30	88	280	\$656	DC1
GH2005	Parallel	1/8	90	26	1.58	69	280	\$663	DC1
GH2006	Parallel	1/8	90	32	1.50	58	220	\$663	DC1
GH2007	Parallel	1/8	90	54	1.51	34	138	\$663	DC1
GH2008	Parallel	1/8	90	61	1.42	30	113	\$653	DC1
GH2009	Parallel	1/8	90	91	1.58	20	86	\$653	DC1
GH2010	Parallel	1/8	90	165	1.57	11	47	\$653	DC1
GH2011	Parallel	1/8	90	364	1.55	5	21	\$667	DC1
GL2002	Parallel	1/8	12	31	12.00	58	220	\$667	DC1
GL2003	Parallel	1/8	12	61	11.40	30	113	\$658	DC1
GL2004	Parallel	1/8	12	163	12.60	11	47	\$658	DC1



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www.weg.net - 1-800-ASK-4WEG



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