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CUSTOMER NEWS

January 5, 2005

To: All Vickers™ Screw-in Cartridge Valve Customers

Subject: Eaton Announces ToughCoil™ Upgrade of Solenoid Coils for Screw-in Cartridge Valves

Eaton is launching the new ToughCoil™ for Screw-in cartridge valves. ToughCoils™ will replace all current D-Frame[1] and Shell type coils typically used with SV[2], SBV, SRV, ERV and EPRV series solenoid valves.

Field Retrofit Capability (fully backwards compatible)
ToughCoils™ will replace the Vickers S, P, J and H series coils currently listed in technical catalog V-VLOV-MC0001-E (June 2003), as well as the older three piece, external shell type coils. The compact ToughCoil™ dimensions allow substitution in all existing applications. No additional water/weather proofing is required.

Upgraded Environmental Protection
Vickers ToughCoils™ with integrated Deutsch and Metri-Pack connectors are rated to IP69K[3] Environmental Protection. ToughCoils™ with DIN connectors and Lead wires are rated to IP65 Environmental Protection. ToughCoils™ have been qualified to withstand the toughest Mobile Equipment **"Thermal Shock Dunk"** tests. Integrated Deutsch and MetriPack connectors exceed "Thermal Shock Dunk" test qualifications at 140°C to 0°C. In addition, ToughCoils™ passed powered dunk tests conducted from 100°C to 0°C at 115% of nominal voltage.

Full Range of Integrated Connector Options
ToughCoils™ are available with all popular integrated connector options - Deutch, MetriPack 150, MetriPack 280, Amp Jr., Wire Leads, DIN & Spades.

Availability Schedule
Vickers ToughCoils™ are being introduced as a running change starting in December 2004. Custom MCD assemblies with solenoid valves will also be updated as a running change.

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[1] ToughCoils are currently not available with Conduit or Stud connectors. Applications with these connector options will not be converted at this time.
[2] SVx-12-3 and SVx-12-4 series valves utilize the R or L series coils, coils used on these valves will not change. The coils used on EFV and EPV series valves will also remain unchanged.

[3] IP69K: This rating provides protection against the ingress of dust and against high pressured/jet stream. The IP69K test was designed specifically for rating protection against a high-pressure jet stream (1160 to 1450 psi), high liquid temperature (176ºF) and close nozzle distance (3.9" to 5.9") from the enclosure surface.

IP65: This rating provides protection against the ingress of dust and against low pressured/jet stream. The IP65 test was designed specifically for rating protection against a low-pressure jet stream at a nozzle distance of 10 feet from the enclosure surface.

"Thermal Shock Dunk" Test: The coil is heated for 2 hours to 140°C and then submerged in water at 0°C for 30 minutes. After submersion, the coil is inspected to verify there are no leaks. The coil is then powered to verify it meets operational standards.

Pricing
List Prices will be the same as the coils being replaced.

Technical Catalog Information
We are in the process of updating our technical catalog. Data sheets with coils features and benefits, technical specifications, model code options, and common assembly numbers are included in appendix A of this announcement

Cross Reference
Cross-reference information for popular coil configurations is included in Appendix B of this announcement.

All requests for additional qualification information should be directed to Screw-in Cartridge Valve Product Management.

Sincerely,

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Appendix A

ToughCoil Technical Data Sheets

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Toughcoils

Vickers ToughCoil have been designed to provide industry leading environmental protection and solenoid performance in a compact and rugged package. ToughCoils with integrated connectors are rated up to IP69K environmental protection. ToughCoils are available with a variety of popular integrated connection options and with wire leads.

The best in class, one-piece, shell encapsulated, design meets the most stringent environmental requirements for mobile and industrial applications.

The exclusive compact coil design from Vickers, offers the advantage of field retro-fit-ability on all existing, and new, applications.

Toughcoils Features and Benefits

- **IP69K Environmental Protection** - This rating provides protection against the ingress of dust and high pressure jet stream. The IP69K test was designed specifically for rating protection against a high-pressure jet stream, high liquid temperature and close nozzle distance from the enclosure surface. IP69K protection is standard on coils with MetriPac or Deutsch, integrated connectors.

- **"Thermal Shock Dunk" Test** - Vickers ToughCoils have been qualified to withstand the toughest Mobile Equipment "Thermal Shock Dunk" tests. Integrated Deutsch, MetriPack[1] and Leadwire[2] connectors exceed "Thermal Shock Dunk" test qualifications at 140°C. The "Thermal Shock Dunk" test requires coils to be heated, reaching a stabilized temperature of 100°C, then immediately immersed in a solution at 0°C. The thermal shock is repeated five times with the coil monitored for dielectric strength in the solution and functional performance is verified.

  In addition, ToughCoils passed a more severe powered dunk test conducted from 100°C to 0°C with 115% rated voltage applied.

  [1]MetriPack® 150 and MetriPack® 280 are registered trade marks of Delphi Packard Electric Systems

  [2]Coils with integrated connectors are recommended for applications in harsh environments.

- **Field Retrofit-able** ToughCoils replace all current Vickers coils used on D Frame and Shell type coils. Compact coil dimensions allow substitution in all existing applications. ToughCoils are available for most 8, 10, 12, 16 and 20 series valves. No additional water/weather proofing is required.

- **Steel Shell Encapsulated Design** ToughCoils provide protection against physical and environmental damage.

Vickers ToughCoils, with rated connector, meet or exceed all major OEM environmental protection requirements

Shown with deutsch connection options

ToughCoils

Model Code

S, P, J and H Series Coils

MCSC – * – * – * – ** – * – ** – 10**

1 2 3 4 5 6 7 8

1 **Product**
MCSC -Solenoid Coil

2 **Series**
S - Size 8 [210 Bar]
P - Size 8 [350 Bar]
J - Size 10, 12, 16, 20 [210 Bar]
H - Size 10, 12, 16, 20 [350 Bar]

3 **Voltage Rating**
012 - 12 Volt
024 - 24 Volt
036 - 36 Volt
048 - 48 Volt
115 - 115 Volt
230 - 230 Volt
Note: Please refer to the follow pages for preferred coil configuration

4 **Voltage Type**
D - DC
B - DC / with flyback diode
A - AC / with full bridge rectifier

5 **Connector**
G0 - ISO 4400 DIN 43650
Q0 - Spade Terminals
W0 - Leadwire
N0 - Deutsch Male, DT04-2P, Integrated (DC Only)
Y0 - Amp Jr (DC Only)
D0 - MetriPack® 150 Male, Integrated (DC Only)
J0 - MetriPack® 280 Male, Integrated (DC Only)
Z0 - MetriPack® 150.2 male wire leads
E0 - Weather–Pack (Packard) female on wire leads
F0 - Weather–Pack (Packard) male on wire leads

6 **Lead Length**
0 - None
A - 152mm [6.0 in] (Standard length with connector)
B - 610mm [24.0 in] (Standard length without connector)

7 **Special Features**
00 - No Special Features

8 **Design Code**
10 - Design Code

Specifications

RATINGS AND SPECIFICATIONS	
Duty Rating	Continuous from 85% to 110% of nominal voltage
Operating temperature	100°C (212°F) continuous @ nominal voltage
Lead Wires	18 gauge, standard 610 mm (24") long, UL style 3173 CSA CL 1251 (meets SAE J1128 XLPE style SXL)
Power Rating	S Series: 20W P Series: 23W J Series: 23W H Series: 29W
Encapsulent	Glass filled nylon
Magnet Wire	U.L. class N, 200°C (392°F) NEMA pub. No. MW 1000, section MW 35–C (single)
Flyback diode (arc suppressor)	Maximum recurrent peak reverse voltage – 800 V (optional)

Environmental Protection

CONNECTOR	IP65	IP67	IP69K	THERMAL SHOCK DUNK
G0: DIN 43650	X*			
P0: Conduit	X	X		
Q0: Spade				
Y0: Amp Jr.	X	X[1]*		
W0: Wire Leads	X	X		X[1]
N0: Deutsch	X	X	X	X
D0: Metri-Pack 150	X	X	X	X
Z0: Metri-Pack 280	X	X	X	X

[1] Passed environmental testing, but not as robust as other connectors

* Rating dependent on mating connector

CAUTION
Coils may be hot to touch if used in continuous duty applications.

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S Series ToughCoils part numbers 300AA00____ (Complete Part number is 11 Digits)

VOLTAGE	G0** CONNECTOR	Q0 CONNECTOR	W0 CONNECTOR	N0 CONNECTOR	Y0 CONNECTOR	D0 CONNECTOR	J0 CONNECTOR
12VDC	001A	009A	015A	021A	026A	031A	036A
24VDC	002A	010A	016A	022A	027A	032A	037A
36VDC	003A	011A	017A	023A	028A	033A	038A
24VAC	004A	012A	018A	–	–	–	–
115VAC	005A	–	–	–	–	–	–
230VAC	006A	–	–	–	–	–	–
12VDC*	007A	013A	019A	024A	029A	034A	039A
24VDC*	008A	014A	020A	025A	030A	035A	040A

*With flyback diode. (Voltage Type B)
**DIN 43560 mating connector for "G0" style coil – 02-166796.
For other voltages and connectors contact your Eaton representative.

STD. VOLTAGES	AMPERES*
12 DC	1.67
24 DC	0.83
36 DC	0.56
24 AC	0.93
115 AC	0.19
230 AC	0.10

*Nominal voltage 25°C (77°F).

P Series ToughCoils part numbers 300AA00____ (Complete Part number is 11 Digits)

VOLTAGE	G0** CONNECTOR	Q0 CONNECTOR	W0 CONNECTOR	N0 CONNECTOR	Y0 CONNECTOR	D0 CONNECTOR	J0 CONNECTOR
12VDC	041A	049A	055A	061A	066A	071A	076A
24VDC	042A	050A	056A	062A	067A	072A	077A
36VDC	043A	051A	057A	063A	068A	073A	078A
24VAC	044A	052A	058A	–	–	–	–
115VAC	045A	–	–	–	–	–	–
230VAC	046A	–	–	–	–	–	–
12VDC*	047A	053A	059A	064A	069A	074A	079A
24VDC*	048A	054A	060A	065A	070A	075A	080A

*With flyback diode. (Voltage Type B)
**DIN 43560 mating connector for "G0" style coil – 02-166796.
For other voltages and connectors contact your Eaton representative.

STD. VOLTAGES	AMPERES*
12 DC	1.92
24 DC	0.96
36 DC	0.64
24 AC	1.06
115 AC	0.22
230 AC	0.11

*Nominal voltage 25°C (77°F).

J Series ToughCoils part numbers 300AA00____ (Complete Part number is 11 Digits)

VOLTAGE	G0** CONNECTOR	Q0 CONNECTOR	W0 CONNECTOR	N0 CONNECTOR	Y0 CONNECTOR	D0 CONNECTOR	J0 CONNECTOR
12VDC	081A	089A	095A	101A	106A	111A	116A
24VDC	082A	090A	096A	102A	107A	112A	117A
36VDC	083A	091A	097A	103A	108A	113A	118A
24VAC	084A	092A	098A	–	–	–	–
115VAC	085A	–	–	–	–	–	–
230VAC	086A	–	–	–	–	–	–
12VDC*	087A	093A	099A	104A	109A	114A	119A
24VDC*	088A	094A	100A	105A	110A	115A	120A

*With flyback diode. (Voltage Type B)

**DIN 43560 mating connector for "G0" style coil – 02-166796.

For other voltages and connectors contact your Eaton representative.

STD. VOLTAGES	AMPERES*
12 DC	1.92
24 DC	0.96
36 DC	0.64
24 AC	1.06
115 AC	0.22
230 AC	0.11

*Nominal voltage 25°C (77°F).

H Series ToughCoils part numbers 300AA00____ (Complete Part number is 11 Digits)

VOLTAGE	G0** CONNECTOR	Q0 CONNECTOR	W0 CONNECTOR	N0 CONNECTOR	Y0 CONNECTOR	D0 CONNECTOR	J0 CONNECTOR
12VDC	121A	129A	135A	141A	146A	151A	156A
24VDC	122A	130A	136A	142A	147A	152A	157A
36VDC	123A	131A	137A	143A	148A	153A	158A
24VAC	124A	132A	138A	–	–	–	–
115VAC	125A	–	–	–	–	–	–
230VAC	126A	–	–	–	–	–	–
12VDC*	127A	133A	139A	144A	149A	154A	159A
24VDC*	128A	134A	140A	145A	150A	155A	160A

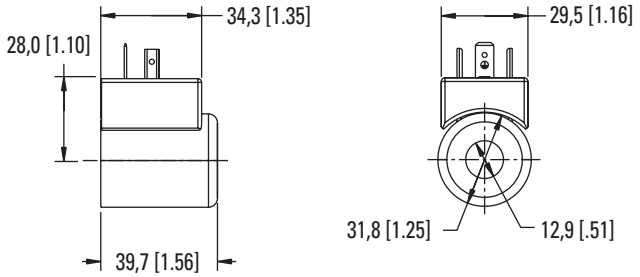
*With flyback diode. (Voltage Type B)

**DIN 43560 mating connector for "G0" style coil – 02-166796.

For other voltages and connectors contact your Eaton representative.

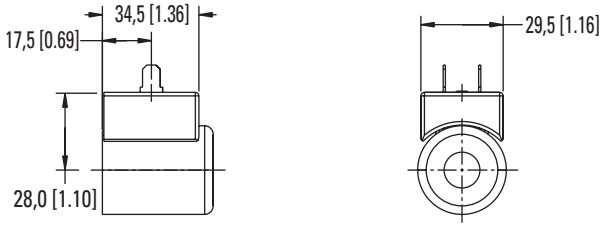
STD. VOLTAGES	AMPERES*
12 DC	2.42
24 DC	1.21
36 DC	0.81
24 AC	1.34
115 AC	0.28
230 AC	0.14

*Nominal voltage 25°C (77°F).

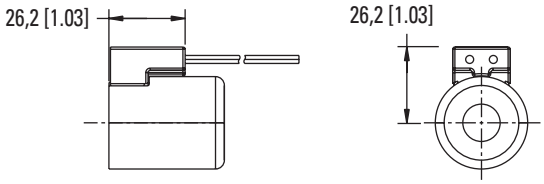


G0
DIN 43650-A Connector

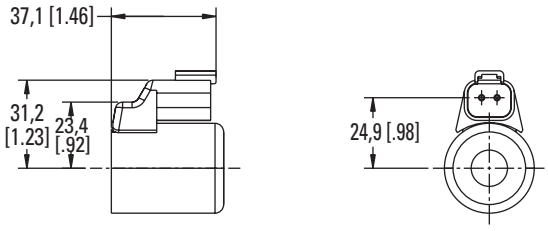
Shown with integrated Deutsch Connector



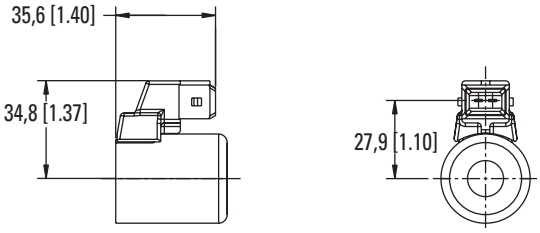
Q0
Spade Connector



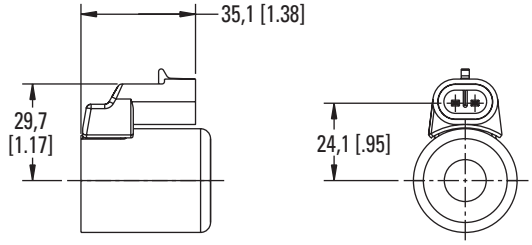
W0
Leadwire



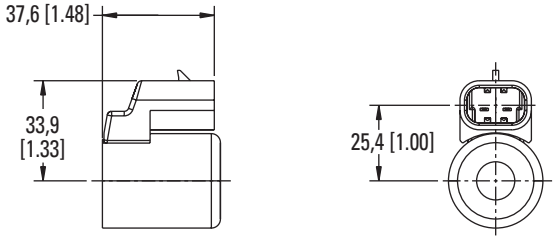
N0
Deutsch Male DTO4-2P integrated connector



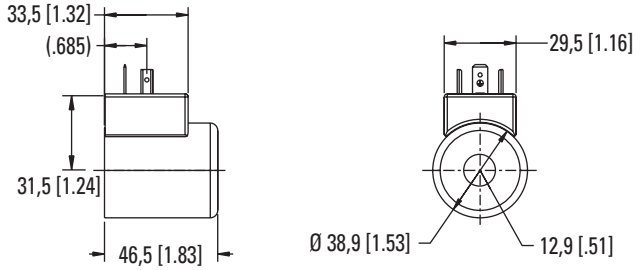
Y0
AMP Junior Timer integrated connector



D0
Metri-Pack 150 Male, integrated connector

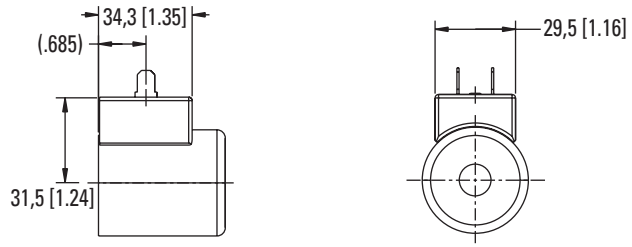


J0
Metri-Pack 280 Male, integrated connector

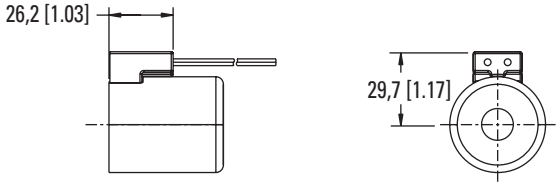


G0
DIN 43650-A Connector

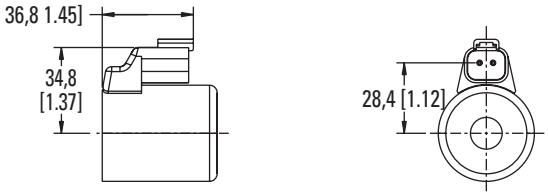
Shown with integrated MetriPack 150 Connector



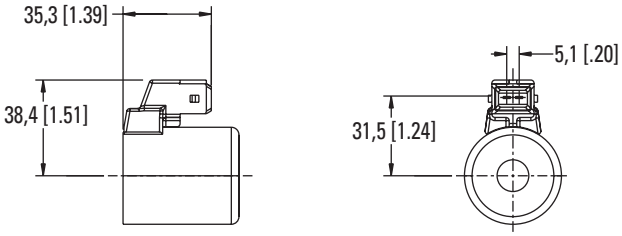
Q0
Spade Connector



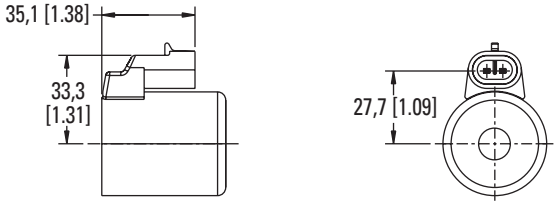
W0
Leadwire



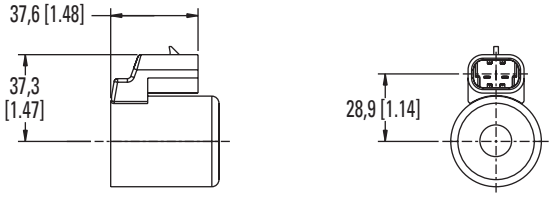
N0
Deutsch Male DTO4-2P integrated connector



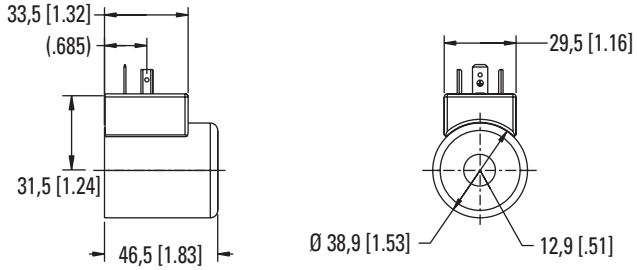
Y0
AMP Junior Timer integrated connector



D0
Metri-Pack 150 Male, integrated connector

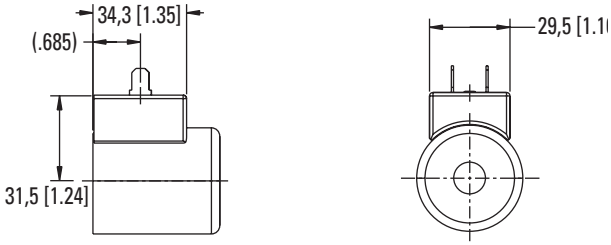


J0
Metri-Pack 280 Male, integrated connector

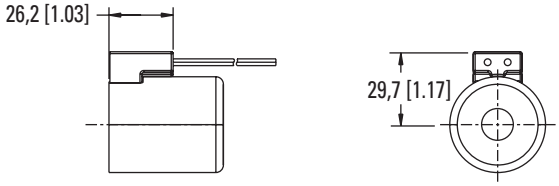


G0
DIN 43650-A Connector

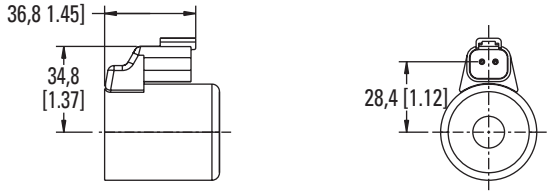
Shown with integrated MetriPack 280 Connector



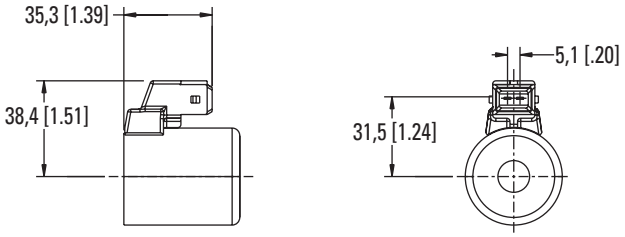
Q0
Spade Connector



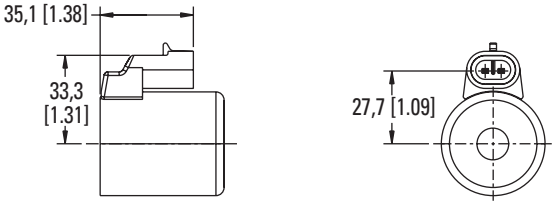
W0
Leadwire



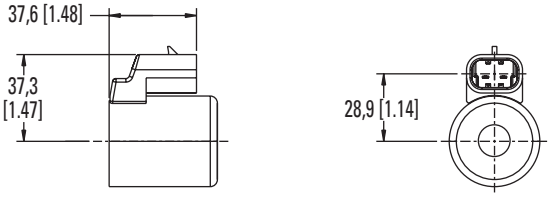
N0
Deutsch Male DTO4-2P integrated connector



Y0
AMP Junior Timer integrated connector



D0
Metri-Pack 150 Male, integrated connector



J0
Metri-Pack 280 Male, integrated connector

Appendix B

ToughCoil Cross-reference Information

Vickers ToughCoils
Cross-reference Information for Popular Coil Configurations

10.27.2004

			Model Code							
Old Assm. No.	Alt. Ref.	Product Number		Coil Series	Voltage	Protection	Connector	Lead Length	Special Feature	Design Code
02-179076		300AA00182A	MCSC	S	012	D	E0	A	00	10
02-160951		300AA00161A	MCSC	S	012	D	F0	A	00	10
02-178814		300AA00177A	MCSC	S	012	C	F0	A	00	10
02-160690		300AA00001A	MCSC	S	012	D	G0	0	00	10
02-179503		300AA00001A	MCSC	S	012	D	G0	0	00	10
02-160953		300AA00024A	MCSC	S	012	B	N0	0	00	10
02-160958		300AA00021A	MCSC	S	012	D	N0	0	00	10
02-160681		300AA00009A	MCSC	S	012	D	Q0	0	00	10
02-178804		300AA00013A	MCSC	S	012	B	Q0	0	00	10
02-160678		300AA00015A	MCSC	S	012	D	W0	B	00	10
02-178802		300AA00019A	MCSC	S	012	B	W0	B	00	10
02-178001		300AA00026A	MCSC	S	012	D	Y0	0	00	10
02-179089		300AA00183A	MCSC	S	012	D	Z0	A	00	10
02-179095		300AA00184A	MCSC	S	012	B	Z0	A	00	10
02-179055		300AA00181A	MCSC	S	020	B	Q0	0	00	10
02-178813		300AA00176A	MCSC	S	024	B	E0	A	00	10
02-179078		300AA00250A	MCSC	S	024	D	F0	A	00	10
02-160691		300AA00002A	MCSC	S	024	D	G0	0	00	10
02-160702		300AA00004A	MCSC	S	024	A	G0	0	00	10
02-179504		300AA00002A	MCSC	S	024	D	G0	0	00	10
02-160959		300AA00022A	MCSC	S	024	D	N0	0	00	10
02-178812		300AA00025A	MCSC	S	024	B	N0	0	00	10
02-160682		300AA00010A	MCSC	S	024	D	Q0	0	00	10
02-178805		300AA00014A	MCSC	S	024	B	Q0	0	00	10
02-160679		300AA00016A	MCSC	S	024	D	W0	B	00	10
02-160693		300AA00018A	MCSC	S	024	A	W0	B	00	10
02-178803		300AA00020A	MCSC	S	024	B	W0	B	00	10
02-160680		300AA00017A	MCSC	S	036	D	W0	B	00	10
02-160703		300AA00005A	MCSC	S	115	A	G0	0	00	10
02-160704		300AA00006A	MCSC	S	230	A	G0	0	00	10
02-178150		300AA00175A	MCSC	P	012	D	F0	A	00	10
02-178829		300AA00178A	MCSC	P	012	C	F0	A	00	10
02-178143		300AA00041A	MCSC	P	012	D	G0	0	00	10
02-178826		300AA00064A	MCSC	P	012	B	N0	0	00	10
02-178134		300AA00049A	MCSC	P	012	D	Q0	0	00	10
02-178131		300AA00055A	MCSC	P	012	D	W0	B	00	10
02-178704		300AA00066A	MCSC	P	012	D	Y0	0	00	10

02-178144		300AA00042A	MCSC	P	024	D	G0	0	00	10
02-178160		300AA00044A	MCSC	P	024	A	G0	0	00	10
02-178825		300AA00048A	MCSC	P	024	B	G0	0	00	10
02-184687		300AA00042A	MCSC	P	024	D	G0	0	00	10
02-178827		300AA00065A	MCSC	P	024	B	N0	0	00	10
02-178135		300AA00050A	MCSC	P	024	D	Q0	0	00	10
02-178819		300AA00054A	MCSC	P	024	B	Q0	0	00	10
02-178132		300AA00056A	MCSC	P	024	D	W0	B	00	10
02-178817		300AA00060A	MCSC	P	024	B	W0	B	00	10
02-178705		300AA00067A	MCSC	P	024	D	Y0	0	00	10
02-178161		300AA00045A	MCSC	P	115	A	G0	0	00	10
02-178162		300AA00046A	MCSC	P	230	A	G0	0	00	10
		300AA00111A	MCSC	J	012	D	D0	0	00	10
		300AA00114A	MCSC	J	012	B	D0	0	00	10
02-179101		300AA00185A	MCSC	J	012	D	E0	A	00	10
02-179102		300AA00251A	MCSC	J	012	B	E0	A	00	10
02-186975 *		300AA00185A	MCSC	J	012	D	E0	A	00	10
02-178097		300AA00172A	MCSC	J	012	D	F0	A	00	10
02-178845		300AA00179A	MCSC	J	012	C	F0	A	00	10
02-179221		300AA00172A	MCSC	J	012	D	F0	A	00	10
02-162086 *	23190	300AA00209A	MCSC	J	012	C	F0	E	00	10
02-162134 *	22850	300AA00172A	MCSC	J	012	D	F0	A	00	10
02-178086		300AA00081A	MCSC	J	012	D	G0	0	00	10
02-178840		300AA00087A	MCSC	J	012	B	G0	0	00	10
02-178093		300AA00101A	MCSC	J	012	D	N0	0	00	10
02-178842		300AA00104A	MCSC	J	012	B	N0	0	00	10
02-187288 *		300AA00104A	MCSC	J	012	B	N0	0	00	10
02-178070		300AA00089A	MCSC	J	012	D	Q0	0	00	10
888880 *	20435	300AA00089A	MCSC	J	012	D	Q0	0	00	10
		300AA00093A	MCSC	J	012	B	Q0	0	00	10
02-178063		300AA00095A	MCSC	J	012	D	W0	B	00	10
02-178832		300AA00099A	MCSC	J	012	B	W0	B	00	10
4997271-001		300AA00204A	MCSC	J	012	Z	W0	B	00	10
888831 *	20101	300AA00095A	MCSC	J	012	D	W0	B	00	10
02-162087 *	20101A	300AA00212A	MCSC	J	012	D	W0	J	00	10
02-162090 *	20565	300AA00210A	MCSC	J	012	D	W0	E	00	10
02-162102 *	22977	300AA00095A	MCSC	J	012	D	W0	B	00	10
02-179116		300AA00186A	MCSC	J	012	C	Y0	0	00	10
02-169840 *	24228	300AA00186A	MCSC	J	012	C	Y0	0	00	10
		300AA00106A	MCSC	J	012	D	Y0	0	00	10
		300AA00109A	MCSC	J	012	B	Y0	0	00	10
02-184622		300AA00188A	MCSC	J	012	D	Z0	A	00	10
02-184623		300AA00253A	MCSC	J	012	B	Z0	A	00	10
		300AA00112A	MCSC	J	024	D	D0	0	00	10
		300AA00115A	MCSC	J	024	B	D0	0	00	10
02-178096		300AA00201A	MCSC	J	024	D	E0	A	00	10
02-165869 *	23305	300AA00201A	MCSC	J	024	D	E0	A	00	10
02-185980		300AA00255A	MCSC	J	024	D	F0	A	00	10
02-162716 *	22388	300AA00260A	MCSC	J	024	D	F0	D	00	10
02-186386 *		300AA00207A	MCSC	J	024	C	F0	D	00	10

4994616-001 *		300AA00214A	MCSC	J	024	B	F0	A	00	10
02-178087		300AA00082A	MCSC	J	024	D	G0	0	00	10
02-178112		300AA00084A	MCSC	J	024	A	G0	0	00	10
02-178841		300AA00088A	MCSC	J	024	B	G0	0	00	10
02-179506		300AA00082A	MCSC	J	024	D	G0	0	00	10
02-186248 *		300AA00082A	MCSC	J	024	D	G0	0	00	10
02-178094		300AA00102A	MCSC	J	024	D	N0	0	00	10
02-178843		300AA00105A	MCSC	J	024	B	N0	0	00	10
4995424-001 *		300AA00102A	MCSC	J	024	D	N0	0	00	10
02-178073		300AA00090A	MCSC	J	024	D	Q0	0	00	10
888881 *	20436	300AA00090A	MCSC	J	024	D	Q0	0	00	10
		300AA00092A	MCSC	J	024	A	Q0	0	00	10
		300AA00094A	MCSC	J	024	B	Q0	0	00	10
02-178065		300AA00096A	MCSC	J	024	D	W0	B	00	10
02-178102		300AA00098A	MCSC	J	024	A	W0	B	00	10
02-178833		300AA00100A	MCSC	J	024	B	W0	B	00	10
888832 *	20102	300AA00096A	MCSC	J	024	D	W0	B	00	10
888833 *	20102A	300AA00258A	MCSC	J	024	D	W0	J	00	10
888837 *	20106A	300AA00098A	MCSC	J	024	A	W0	B	00	10
02-186828 *		300AA00107A	MCSC	J	024	D	Y0	0	00	10
02-187080 *		300AA00110A	MCSC	J	024	B	Y0	0	00	10
		300AA00113A	MCSC	J	036	D	D0	0	00	10
02-178089		300AA00083A	MCSC	J	036	D	G0	0	00	10
		300AA00103A	MCSC	J	036	D	N0	0	00	10
02-178075		300AA00091A	MCSC	J	036	D	Q0	0	00	10
888882 *	20437	300AA00091A	MCSC	J	036	D	Q0	0	00	10
02-178066		300AA00097A	MCSC	J	036	D	W0	B	00	10
		300AA00108A	MCSC	J	036	D	Y0	0	00	10
02-178090		300AA00249A	MCSC	J	048	D	G0	0	00	10
02-178076		300AA00168A	MCSC	J	048	D	Q0	0	00	10
888883 *	20438	300AA00168A	MCSC	J	048	D	Q0	0	00	10
888835 *	20104	300AA00211A	MCSC	J	048	D	W0	B	00	10
02-178091		300AA00170A	MCSC	J	115	D	G0	0	00	10
02-178114		300AA00085A	MCSC	J	115	A	G0	0	00	10
02-175976	31834WP	300AA00085A	MCSC	J	115	A	G0	0	00	10
888836 *	20105	300AA00259A	MCSC	J	115	D	W0	B	00	10
888838 *	20107A	300AA00197A	MCSC	J	115	A	W0	B	00	10
02-178092		300AA00171A	MCSC	J	125	D	G0	0	00	10
02-178116		300AA00086A	MCSC	J	230	A	G0	0	00	10
02-178117		300AA00086A	MCSC	J	230	A	G0	0	00	10
888840 *	20108A	300AA00198A	MCSC	J	230	A	W0	B	00	10
		300AA00151A	MCSC	H	012	D	D0	0	00	10
		300AA00154A	MCSC	H	012	B	D0	0	00	10
02-185716		300AA00189A	MCSC	H	012	D	E0	A	00	10
02-178034		300AA00163A	MCSC	H	012	D	F0	A	00	10
02-178860		300AA00180A	MCSC	H	012	C	F0	A	00	10
02-178027		300AA00121A	MCSC	H	012	D	G0	0	00	10
02-178030		300AA00141A	MCSC	H	012	D	N0	0	00	10
02-178857		300AA00144A	MCSC	H	012	B	N0	0	00	10
02-178018		300AA00129A	MCSC	H	012	D	Q0	0	00	10

02-178015	300AA00135A	MCSC	H	012	D	W0	B	00	10
02-178035	300AA00146A	MCSC	H	012	D	Y0	0	00	10
	300AA00152A	MCSC	H	024	D	D0	0	00	10
	300AA00155A	MCSC	H	024	B	D0	0	00	10
02-178033	300AA00162A	MCSC	H	024	D	E0	A	00	10
02-178028	300AA00122A	MCSC	H	024	D	G0	0	00	10
02-178047	300AA00124A	MCSC	H	024	A	G0	0	00	10
02-178856	300AA00128A	MCSC	H	024	B	G0	0	00	10
02-178031	300AA00142A	MCSC	H	024	D	N0	0	00	10
02-178019	300AA00130A	MCSC	H	024	D	Q0	0	00	10
02-178016	300AA00136A	MCSC	H	024	D	W0	B	00	10
02-178848	300AA00140A	MCSC	H	024	B	W0	B	00	10
02-178036	300AA00147A	MCSC	H	024	D	Y0	0	00	10
	300AA00153A	MCSC	H	036	D	D0	0	00	10
02-178048	300AA00125A	MCSC	H	115	A	G0	0	00	10
02-178049	300AA00126A	MCSC	H	230	A	G0	0	00	10

* Note these coil models required a coil shell kit for installation, the new Duracoils are a one-piece design, no separate shell kits will be required.