

1

2

3

4

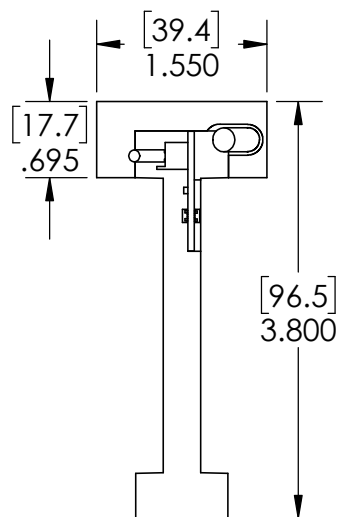
5

## REVISION TABLE

| REV | ECN# | DESCRIPTION      | REV BY | APPROVED | DATE    |
|-----|------|------------------|--------|----------|---------|
| --- | ---  | Original Drawing | SDC    | MPW      | 5-12-15 |

Optional Hall Leads

Motor Power Leads

5X TAP 1/4-20  $\nabla$  .400 [10.2]Optional  
Hall Module[19.1]  
.750[195.6]  
7.700

Standard Cable Length = 1 meter



**H2W Technologies, Inc.**  
Santa Clarita, CA 91350 USA  
Tel: (661) 291-1620  
[www.h2wtech.com](http://www.h2wtech.com)

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UNLESS SPECIFIED OTHERWISE:  
All dimensions are in inches  
Standard Tolerances are as follows  
XXX  $\pm$ .005 ANGLES  $\pm$ 1°  
.XX  $\pm$ .010 FILLETS .010  
.X  $\pm$ .020 CORNERS .010  
Remove All Burrs and Sharp Edges

**FOR  
REFERENCE  
ONLY**

MATERIAL

FINISH

TITLE

Ironless Motor Coil Model #:  
**BLDM-E06**

DWG # **20-0226**

REV ----

DATE 5-12-15

SHEET 1 of 3

1

2

3

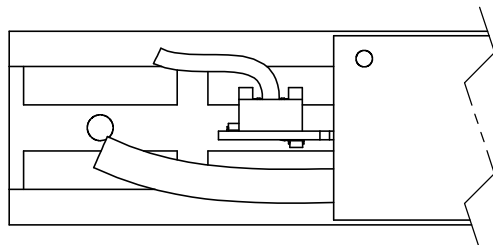
4

5

A

A

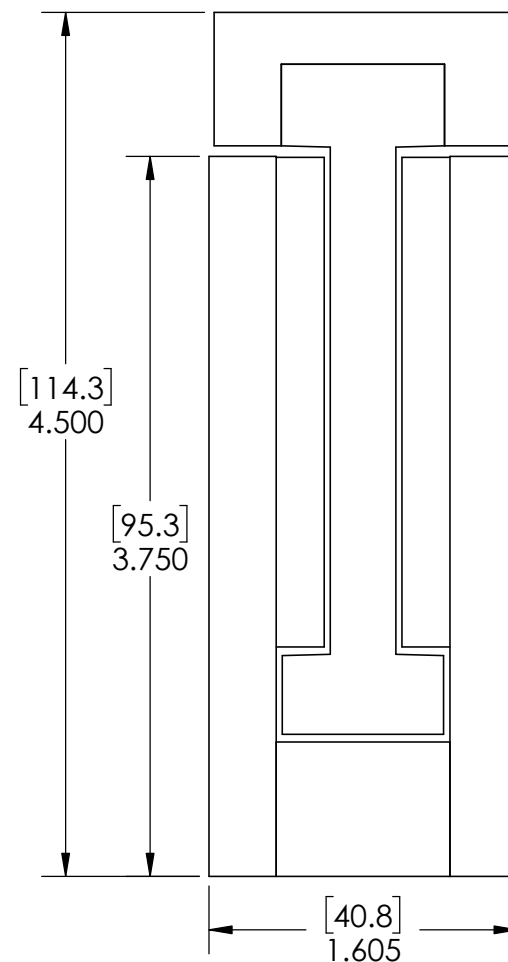
OPTIONAL HALL MODULE MUST BE IN  
MAGNET TRACK FOR COMMUTATION



B

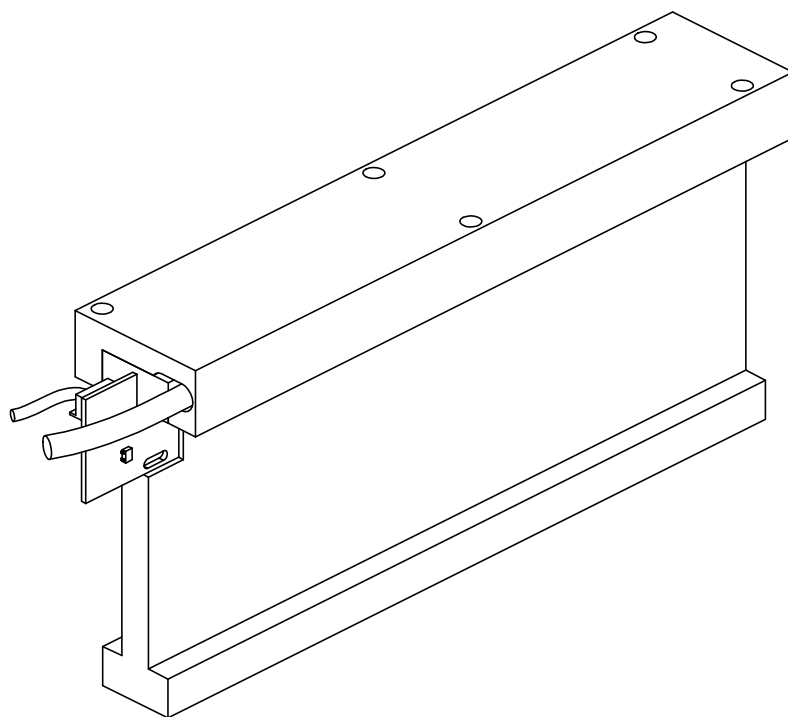
B

MOTOR COIL SHOWN  
WITH MAGNET TRACK



C

C



D

D



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.XXX ±.005 ANGLES ±.1°  
.XX ±.010 FILLETS .010  
.X ±.020 CORNERS .010  
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Ironless Motor Coil Model #:  
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DWG #

20-0226

REV

----

DATE

5-12-15

SHEET

2 of 3

1

2

3

4

5

A

A

B

B

C

C

D

D

| Motor Specifications     |                    |              |
|--------------------------|--------------------|--------------|
| BLDM-E06                 |                    |              |
| General                  |                    |              |
| Continuous Force         | lbs [N]            | 42 [185]     |
| Continuous Current       | Amps               | 3.1          |
| Continuous Power         | Watts              | 106.9        |
| Peak Force @ 10% Duty    | lbs [N]            | 125 [556]    |
| Peak Current @ 10% Duty  | Amps               | 9.3          |
| Peak Power @ 10% Duty    | Watts              | 962.1        |
| Electrical               |                    |              |
| Force Constant           | lbs/Amp [N/Amp]    | 13.4 [59.7]  |
| Back EMF                 | V/in/sec [V/m/sec] | 1.52 [59.7]  |
| Resistance               | Ohms               | 8.6          |
| Inductance               | mH                 | 13           |
| Electrical Time Constant | msec               | 1.5          |
| Km Motor Constant        | lbs/sqW [N/sqW]    | 4.6 [20.4]   |
| Mechanical               |                    |              |
| Electrical Cycle Length  | in [mm]            | 2.4 [60.96]  |
| Number of Poles          | 6                  |              |
| Coil Assembly Length     |                    |              |
| with Hall Sensor         | in [mm]            | 8.45 [214.6] |
| without Hall Sensor      | in [mm]            | 7.7 [196]    |
| Coil Assembly Weight     | lbs [kg]           | 2.47 [1.12]  |
| Magnet Track Weight      | lbs/in [kg/m]      | 0.96 [17.2]  |

| Wiring                |                               |
|-----------------------|-------------------------------|
| Motor                 |                               |
| Phase A               | White/Red Stripe              |
| Phase B               | White                         |
| Phase C               | White/Black Stripe            |
| Ground                | White/Green Stripe            |
| Thermostat 1          | Blue                          |
| Thermostat 2          | Orange                        |
| Hall Effect           |                               |
| Hall A                | White                         |
| Hall B                | Red                           |
| Hall C                | Black                         |
| Hall Ground           | Green                         |
| Hall Power (+5-24VDC) | Brown, Orange, Violet, Yellow |



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REV

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SHEET

3 of 3