



Kinematics Manufacturing, Inc.

Process Solutions through Excellence in Innovation



DC Gear Motors

KMI Standard DC Brushed Gear Motors

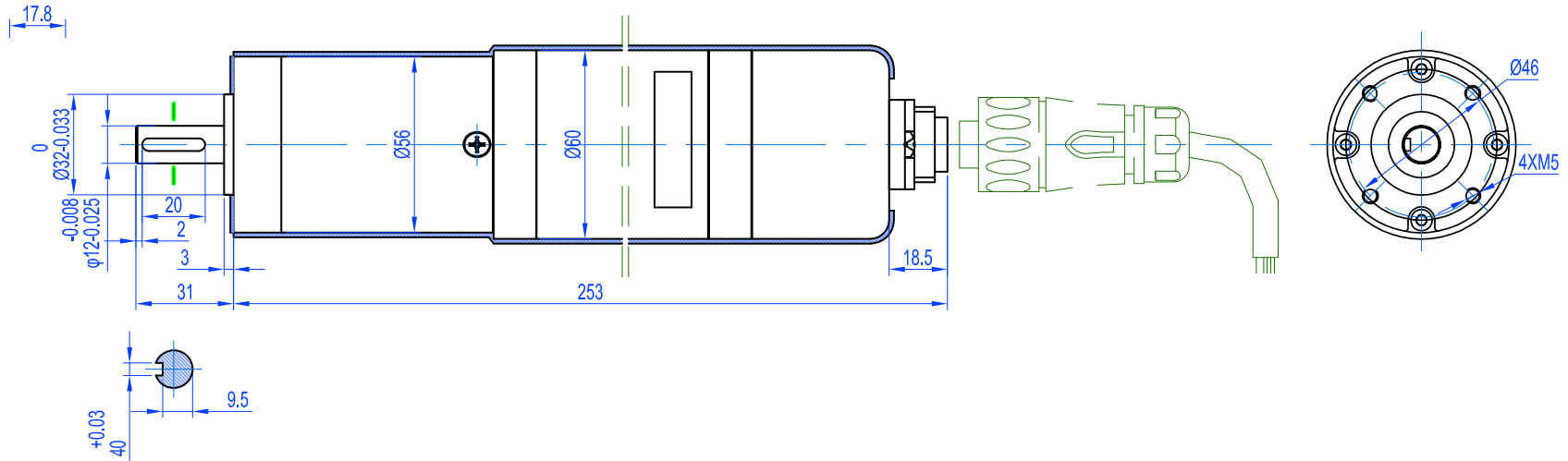
KMI Code	VDC	Motor Rated Speed (rpm)	Reduction Ratio	Output Speed (rpm)	Rated Torque (N-m)	Rated Current (A)	Stall Torque (N-m)	IP Rating	Hall Effect Sensor
12H-1700-575-30-V-12S-46	12	1700	575	3.0	30	2.4	60	55	Y
12H-1900-236-25-V-12S-40	12	1900	236	8.1	25	3.6	60	55	Y
24-1000-422-150-AS-25S-130	24	1000	422	2.4	150	4	300	55	N
24-1200-283.5-180-25S-130	24	1200	283.5	4.2	180	8.2	360	55	N
24-1700-575-33-12S-46	24	1700	575	3.0	33	1.2	60	55	N
24-2500-35-8-12S-40	24	2500	35	71.4	8	4.7	16	55	N
24-2500-35-8-12S-46	24	2500	35	71.4	8	4.7	16	55	N
24-2500-35-11-12S-40	24	2500	35	69.0	11	7	22	65	N
24-3000-35-25-16S-62	24	3000	35	85.7	25	3	50	55	N
24H-1500-216-60-V-20S-70	24	1500	216	6.9	60	4.7	120	55	Y
24H-1700-575-33-V-12S-46	24	1700	575	3.0	33	1.2	60	55	Y
24H-1800-2277-40-V-12S-40	24	1800	2277	0.8	40	0.6	60	55	Y
24H-1900-236-25-V-12S-40	24	1900	236	8.1	25	1.8	60	55	Y
24H-1900-236-25-V-12S-46	24	1900	236	8.1	25	1.8	60	55	Y
24H-2100-236-100-V-20S-70	24	2100	236	8.9	100	11	200	55	Y
24H-2500-35-8-V-12S-40	24	2500	35	71.4	8	4.7	16	55	Y

KMI Standard DC Brushless Gear Motors

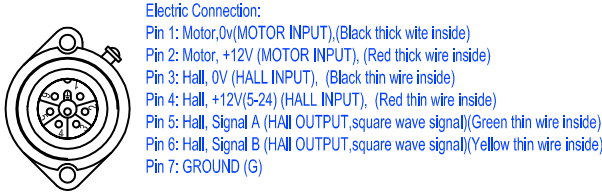
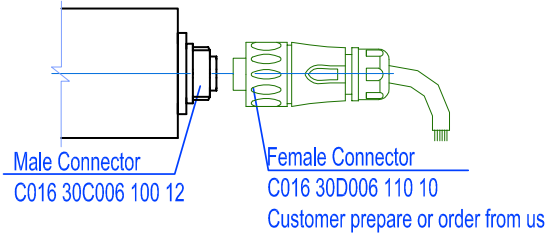
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24LH-1350-192-60-20S-70	24	1350	192	7.0	60	5.5	120	55	Y
24LH-1700-575-50-20S-70	24	1700	575	3.0	50	3	100	55	Y
24LH-1800-236-29-12S-40	24	1800	236	7.6	29	2.2	60	55	Y
24LH-1900-0.7-14S-100	24	1900	Per Application	Per Application	0.7	12.8	1.4	55	Y
24LH-1900-1.5-14S-145	24	1900	Per Application	Per Application	1.5	24	3	55	Y


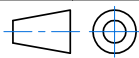



DC Gear 12H-1700-575-30-V-12S-46

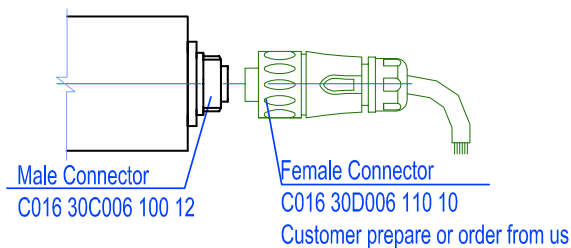
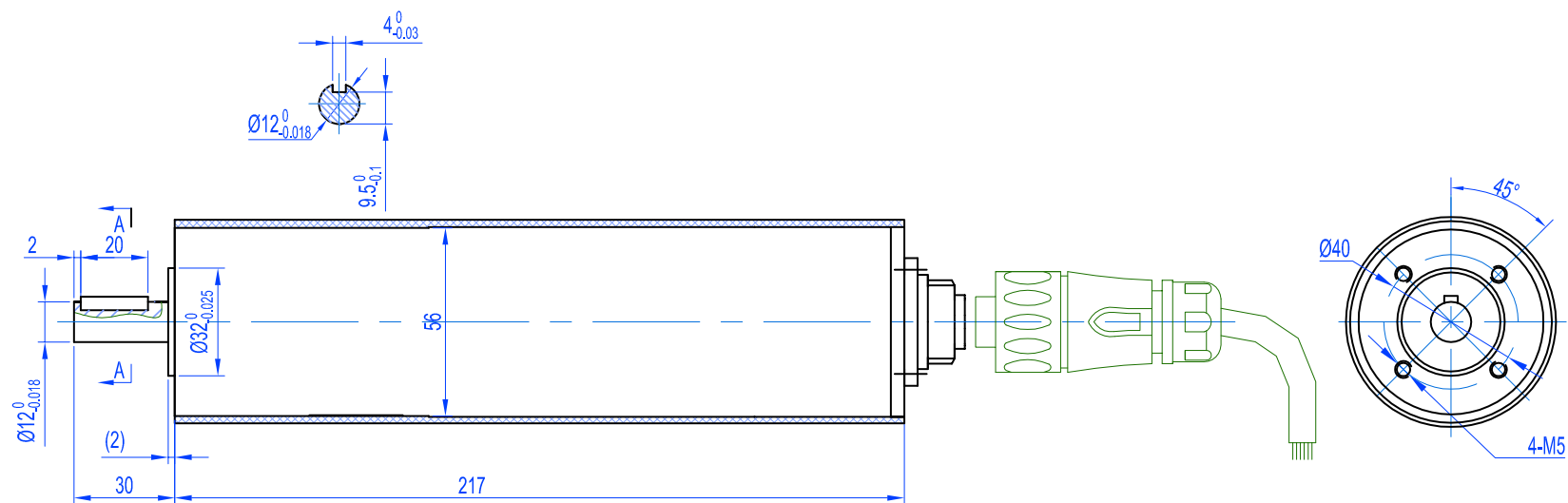


Rated Voltage: 12V
Motor Rated Speed: 1700 rpm
Ratio: 575
Output Torque: 30 N. m
Stall Torque: 60 N. m
Rated Current: <2.4A
IP:55






DESIGNED BY			WJY		2013/05/27			KMI GROUP		www.kinematicsmfg.com		
CHECKED BY			ZMF		2013/05/27							
APPROVED BY			WCH		2013/05/27							
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED, AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART, OR TO DISCLOSE ANY OF THE INFORMATION TO OTHERS.						WEIGHT		SCALE		GEAR MOTOR		
								NTS				
SYMBOL ISO		SIZE		A3		SHEET		1/1		12H-1700-575-30-V-12S-46		REV A
						THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- L CASTING TOLERANCE ISO 8062-CT10						

DC BrushedGear 12H-1900-236-25-V-12S-40

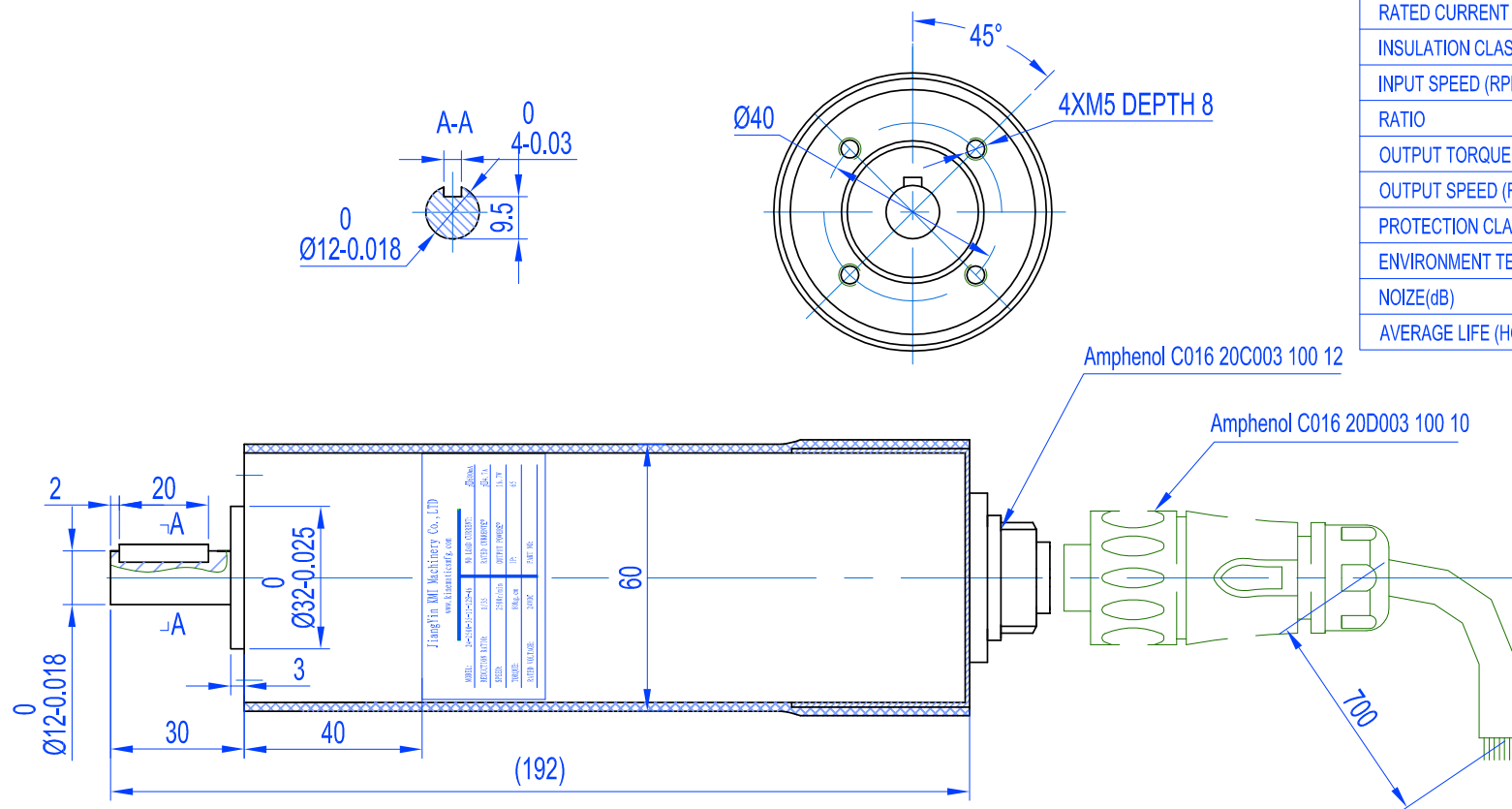


Electric Connection:
Pin 1: Motor, 0V (MOTOR INPUT), (Black thick wire inside)
Pin 2: Motor, +12V (MOTOR INPUT), (Red thick wire inside)
Pin 3: Hall, 0V (HALL INPUT), (Black thin wire inside)
Pin 4: Hall, +12V (5-24) (HALL INPUT), (Red thin wire inside)
Pin 5: Hall, Signal A (HALL OUTPUT, square wave signal) (Green thin wire inside)
Pin 6: Hall, Signal B (HALL OUTPUT, square wave signal) (Yellow thin wire inside)
Pin 7: GROUND (G)

Rated Voltage: 12V
Motor Rated Speed: 1900 rpm
Ratio: 236
Output Torque: 25 N. m
Stall Torque: 60 N. m
Rated Current: <3.6A
IP:55


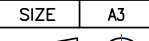
DESIGNED BY		WJY		2013/05/27			KMI GROUP		www.kinematicsmfg.com
CHECKED BY		ZMF		2013/05/27			GEAR MOTOR		
APPROVED BY		WCH		2013/05/27					
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							NTS		
SYMBOL ISO		SIZE	A3	SHEET	1/1	12H-1900-236-25-V-12S-40			REV
				THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10					A

DC Brushed Gear 24-2500-35-11-12S-40

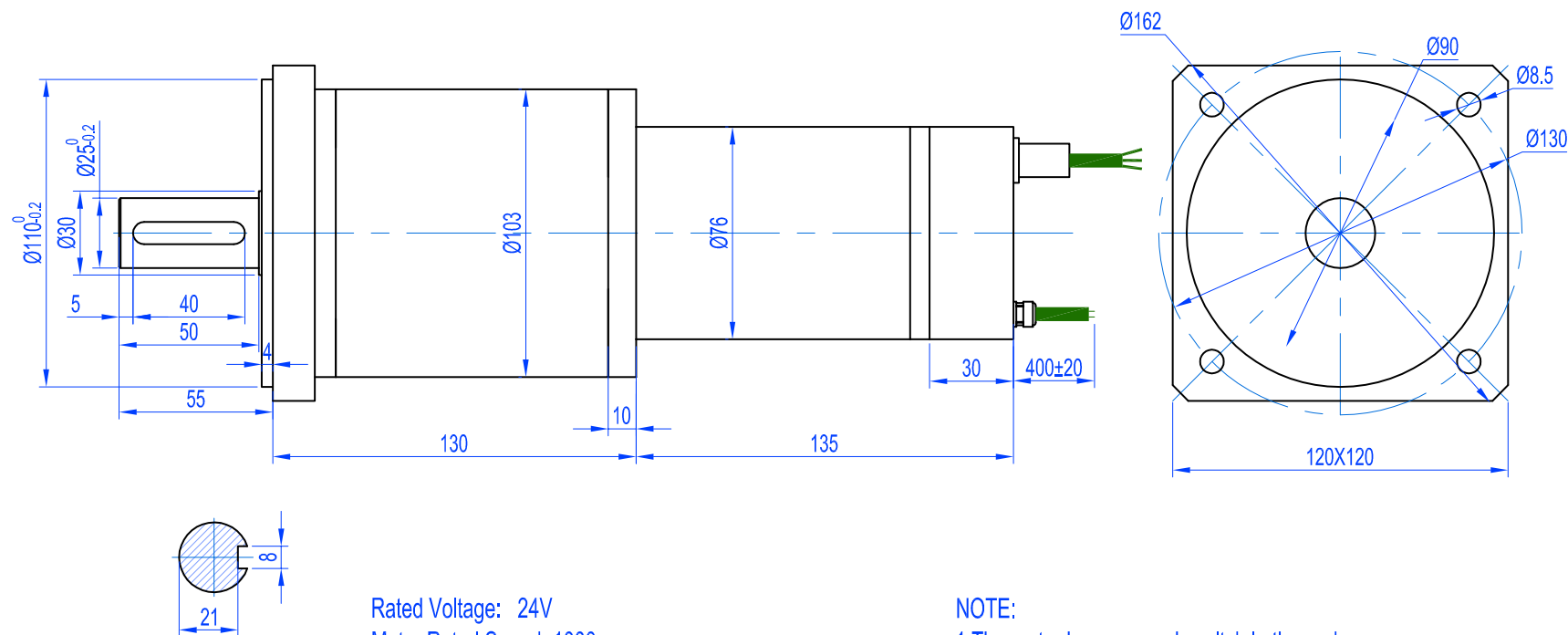


MOTOR DATA	
RATED VOLTAGE(VDC)	24
RATED POWER (W)	80
RATED CURRENT (A)	≤7
INSULATION CLASS	B
INPUT SPEED (RPM)	2500
RATIO	1/35
OUTPUT TORQUE (N.m)	11
OUTPUT SPEED (RPM)	69
PROTECTION CLASS	IP65
ENVIRONMENT TEMPERATURE	-40~+80℃
NOIZE(dB)	≤70
AVERAGE LIFE (HOURS)	≤2000

Pin 1: Motor, 24V (MOTOR INPUT), (RED)
Pin 2: Motor, 0V (MOTOR INPUT), (BLACK)
Pin 3: NULL


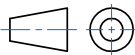
DESIGNED BY	WJY	2013/03/01	<div></div> <div>KMI GROUP</div> <div>www.kinematicsmsg.com</div>			
CHECKED BY	ZMF	2013/03/01				
APPROVED BY	WCH	2013/03/01				
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				NTS		
SYMBOL ISO	SIZE	A3	SHEET	1/1	24-2500-35-11-12S-40	REV
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DC Brushed Gear 24-1000-422-150-AS-25S-130

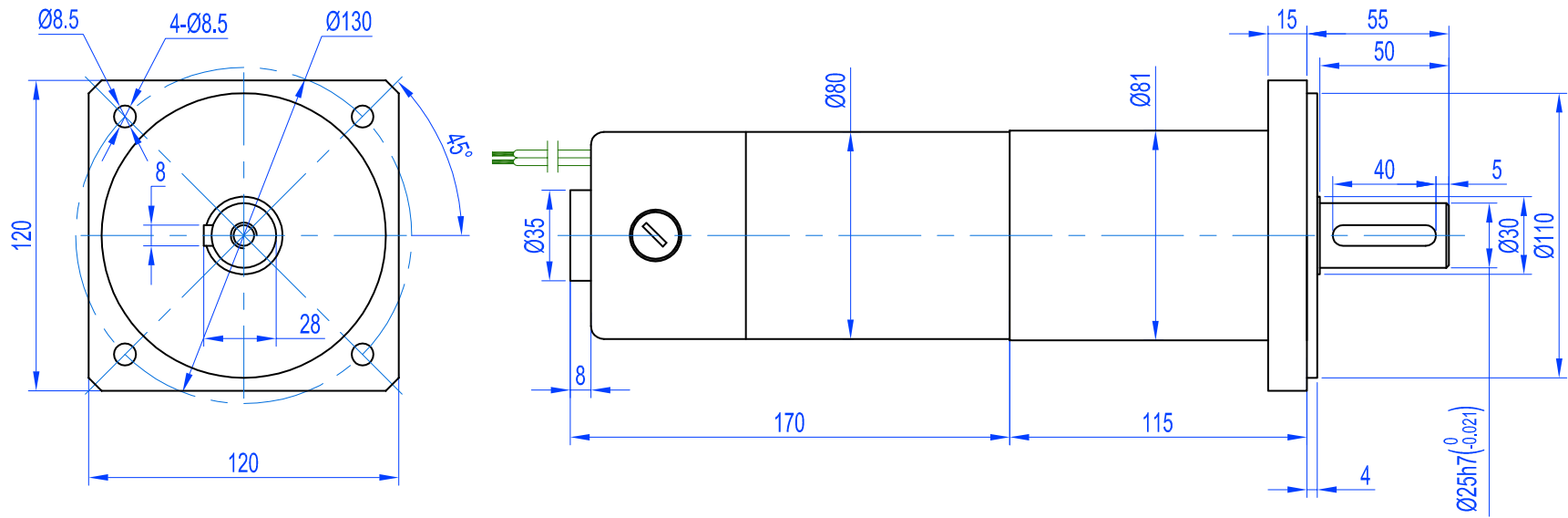


Rated Voltage: 24V
Motor Rated Speed: 1000 rpm
Ratio: 422
Output Torque: 150 N. m
Stall Torque: 300 N. m
Rated Current: ≤4.0A
IP:55


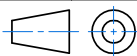
NOTE:
1.The motor has approach switch in the end.
2.The type of approach switch is NPN,and the resolution is 422X2

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				NTS	
SYMBOL ISO	SIZE	A3	SHEET	1/1	24-1000-422-150-AS-25S-130
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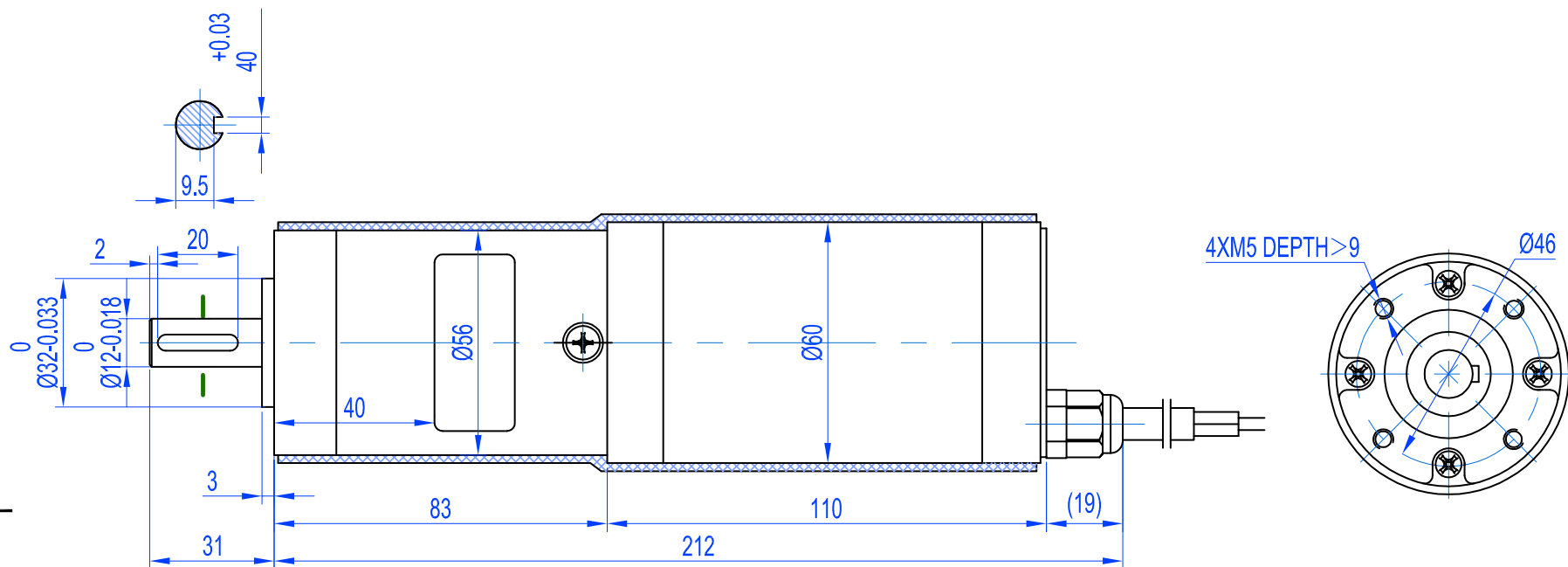
DC Brushed Gear 24-1200-283.5-180-25S-130




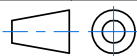
Rated Voltage: 24V
Motor Rated Speed: 1200 rpm
Ratio: 283.5
Output Torque: 180 N.m
Stall Torque: 360 N.m
Rated Current: 8.2A
IP:55

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APPROVED BY		WCH 2013/05/23					
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					NTS		
SYMBOL ISO		SIZE	A3	SHEET	1/1	24-1200-283.5-180-25S-130	REV
				THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- <u>M</u> -CASTING TOLERANCE ISO 8062-CT10			A

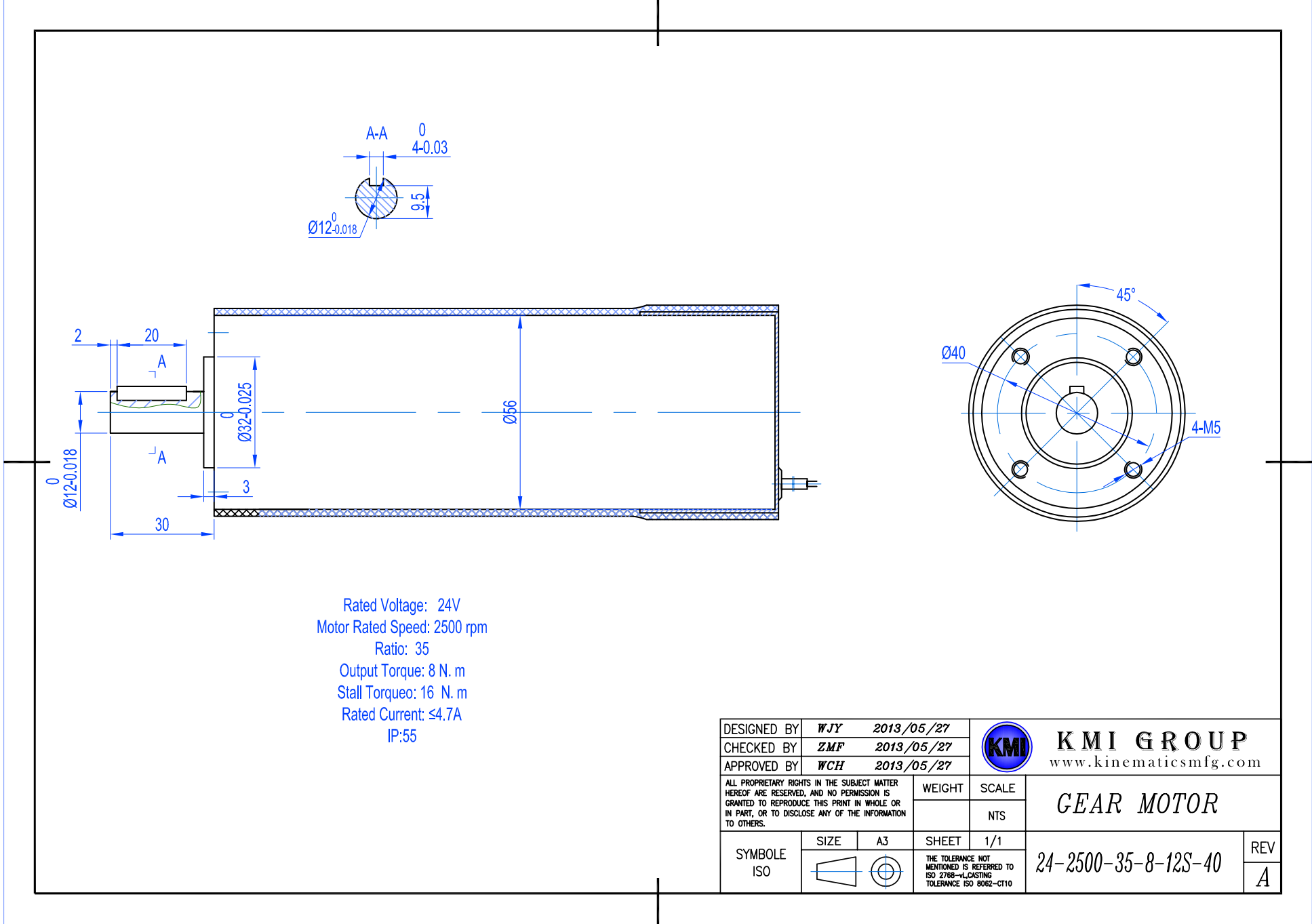
DC Brushed Gear 24-1700-575-33-12S-46



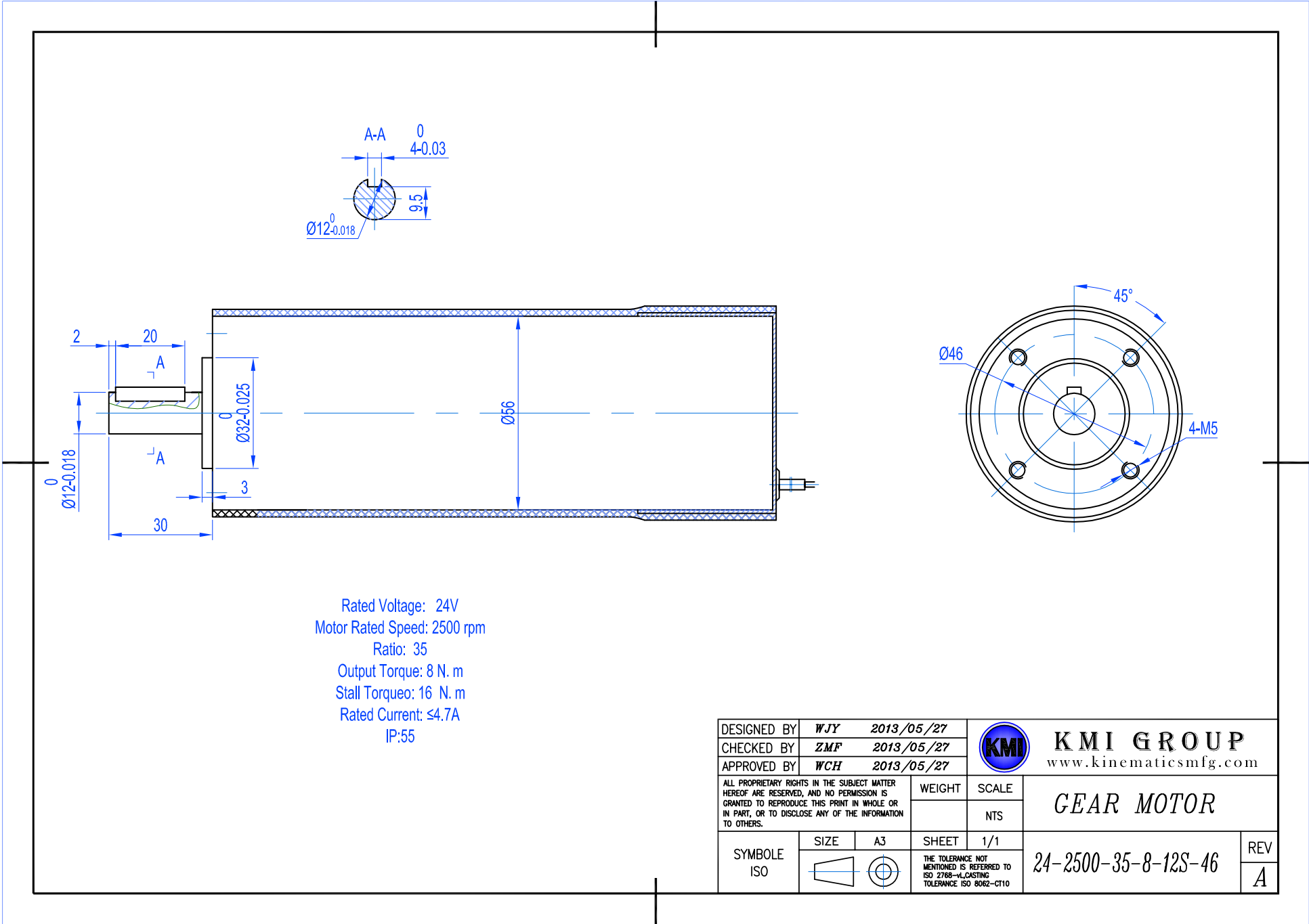
Rated Voltage: 24V
Motor Rated Speed: 1700 rpm
Ratio: 575
Output Torque: 33 N. m
Stall Torque: 60 N. m
Rated Current: <1.2A
IP:55

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APPROVED BY		WCH 2013/05/23				
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					NTS	
GEAR MOTOR						
SYMBOL ISO	SIZE	A3	SHEET	1/1	24-1700-575-33-12S-46	REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- μ CASTING TOLERANCE ISO 8062-CT10			A

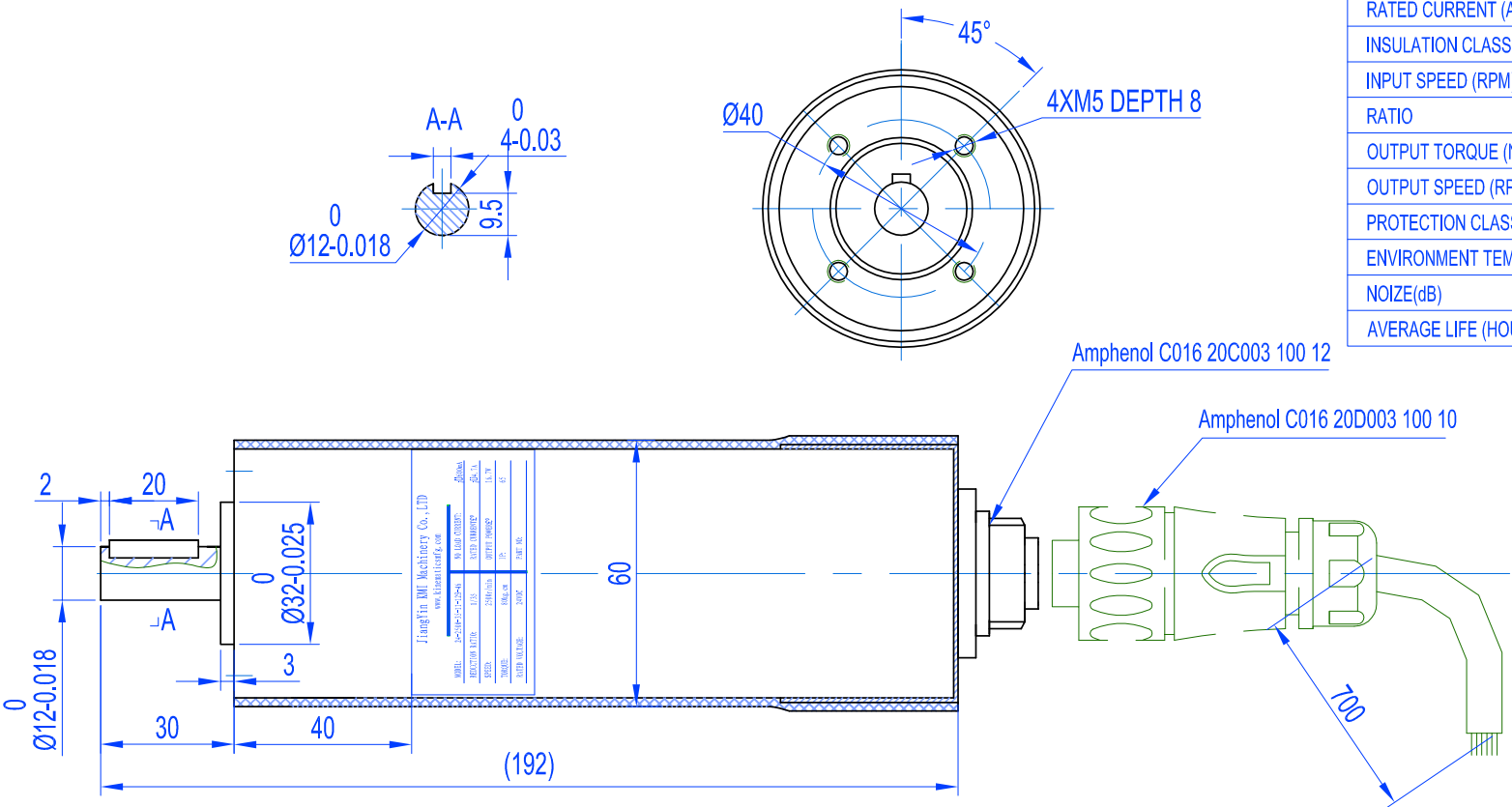
DC Brushed Gear 24-2500-35-8-12S-40



DC Brushed Gear 24-2500-35-8-12S-46


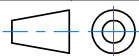


DC Brushed Gear 24-2500-35-11-12S-40

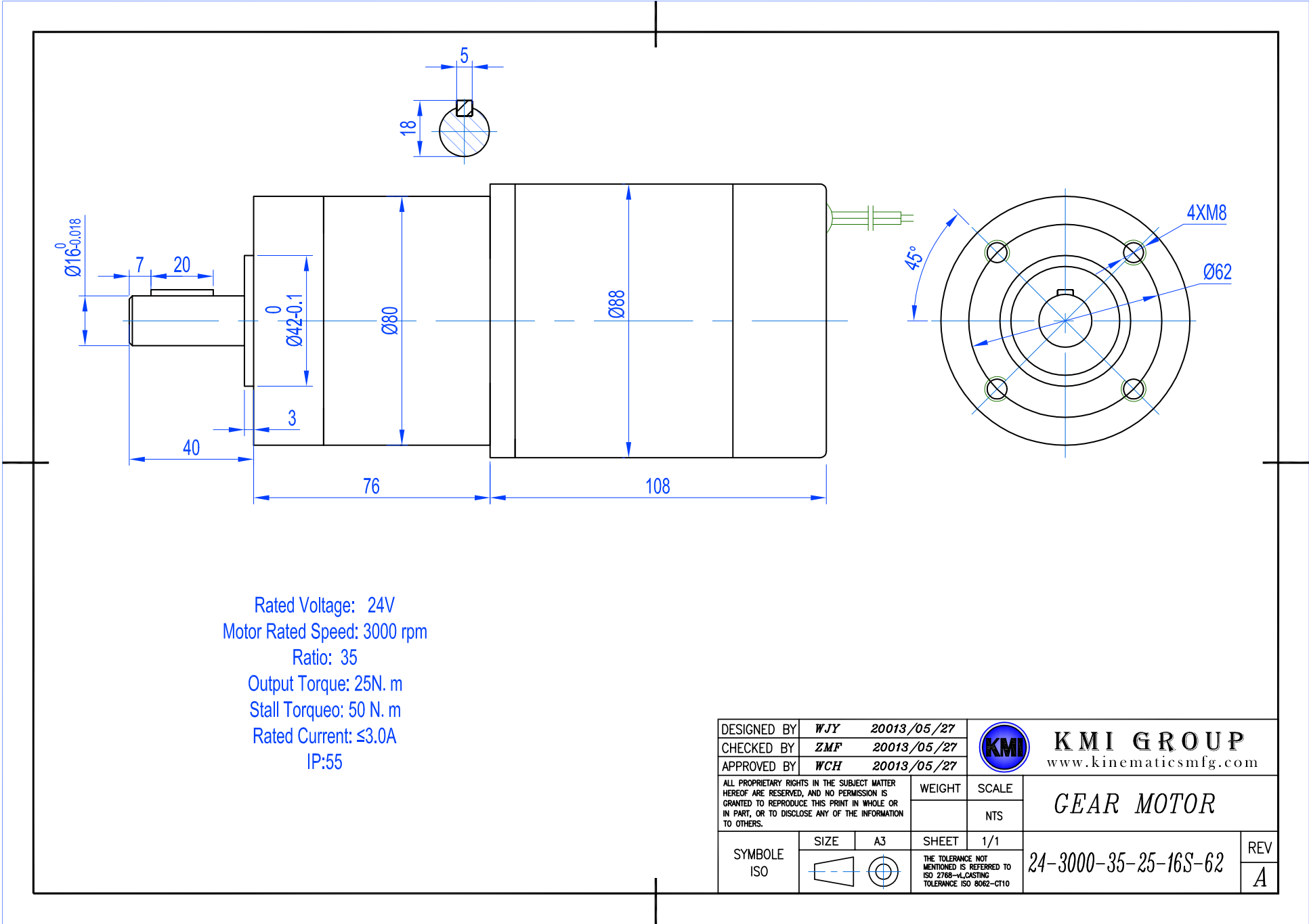


MOTOR DATA	
RATED VOLTAGE(VDC)	24
RATED POWER (W)	80
RATED CURRENT (A)	≤7
INSULATION CLASS	B
INPUT SPEED (RPM)	2500
RATIO	1/35
OUTPUT TORQUE (N.m)	11
OUTPUT SPEED (RPM)	69
PROTECTION CLASS	IP65
ENVIRONMENT TEMPERATURE	-40~+80℃
NOIZE(dB)	≤70
AVERAGE LIFE (HOURS)	≤2000

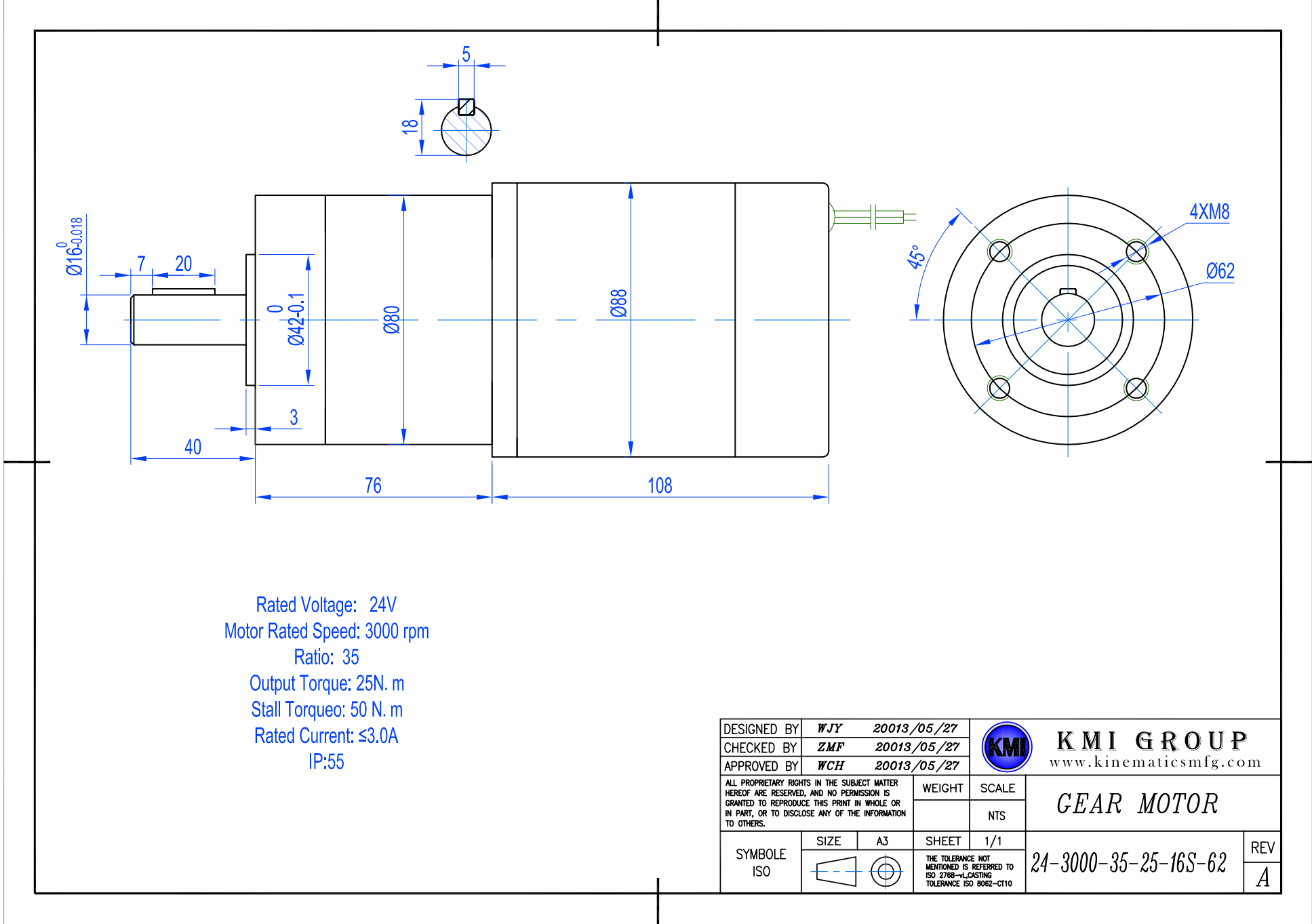
Pin 1: Motor, 24V (MOTOR INPUT), (RED)
Pin 2: Motor, 0V (MOTOR INPUT), (BLACK)
Pin 3: NULL

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APPROVED BY		WCH 2013/03/01				
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					NTS	
SYMBOL ISO	SIZE	A3	SHEET	1/1	24-2500-35-11-12S-40	REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- μ CASTING TOLERANCE ISO 8062-CT10			E

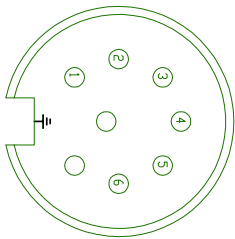
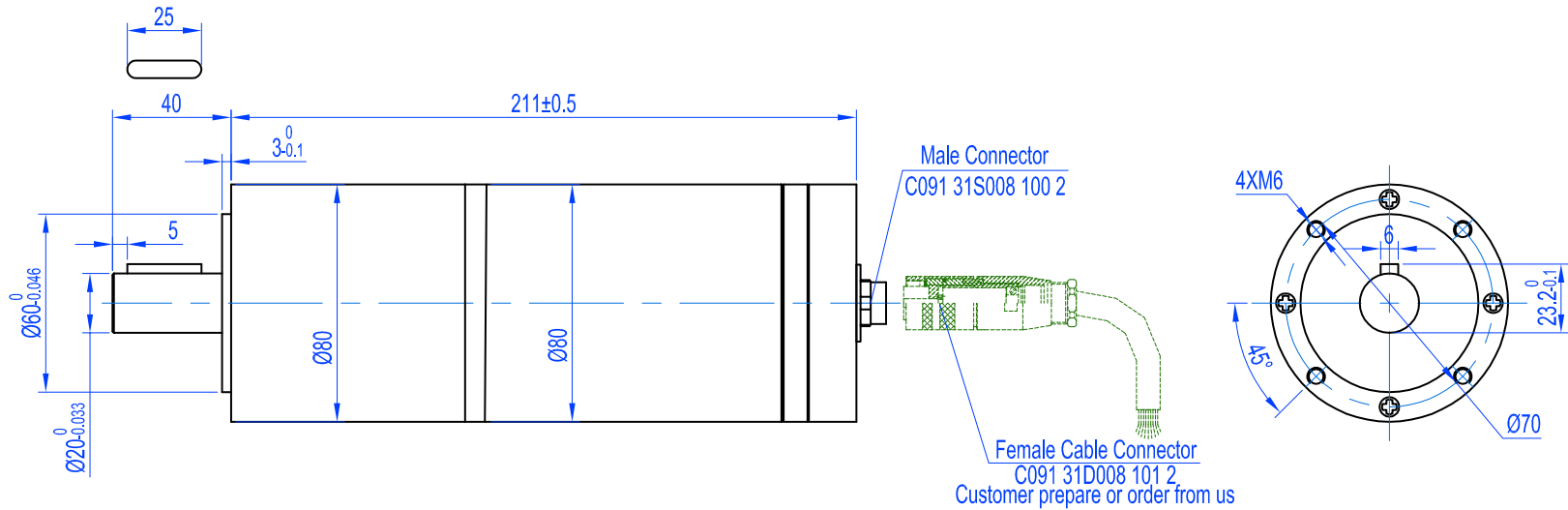
DC Brushed Gear 24-3000-35-25-16S-62



DC Brushed Gear 24-3000-35-25-16S-62


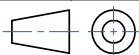


DC Brushed Gear 24H-1500-216-60-V-20S-70

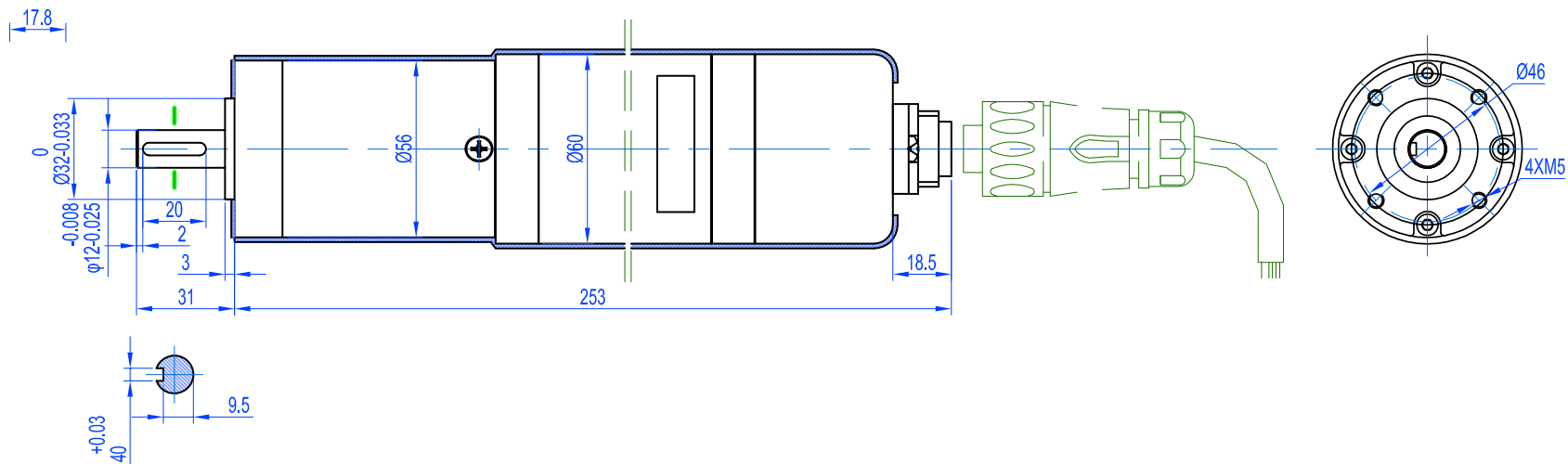


Electric Connection:
Pin 1: 0V motor- (black wire inside)
Pin 2: +24V, motor+, (Red wire inside)
Pin 3: GND (black wire inside)
Pin 4: Hall (+5-24V), (Red wire inside)
Pin 5: Hall A, (green wire inside)
Pin 6: Hall B, (yellow wire inside)
Pin 7: Null
Pin 8: Null

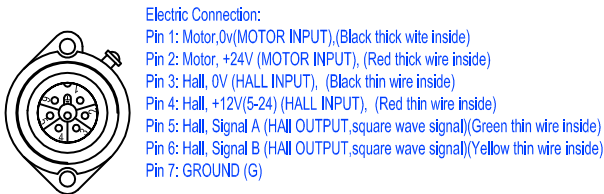
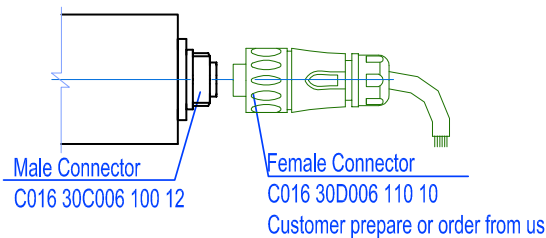
Rated Voltage: 24V
Motor Rated Speed: 1500 rpm
Ratio: 216
Output Torque: 60 N. m
Stall Torqueo: 120 N. m
Rated Current: <4.7A
IP:55


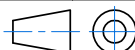
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CHECKED BY			ZMF		2013/05/27					
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								NTS		
SYMBOL ISO		SIZE	A3	SHEET	1/1	24H-1500-216-60-V-20S-70			REV	
				THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M, CASTING TOLERANCE ISO 8062-CT10					A	

DC Brushed Gear 24H-1700-575-33-V-12S-46

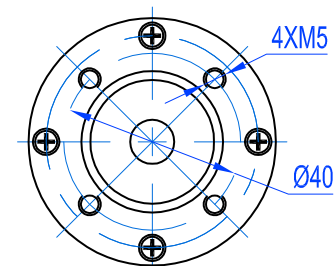
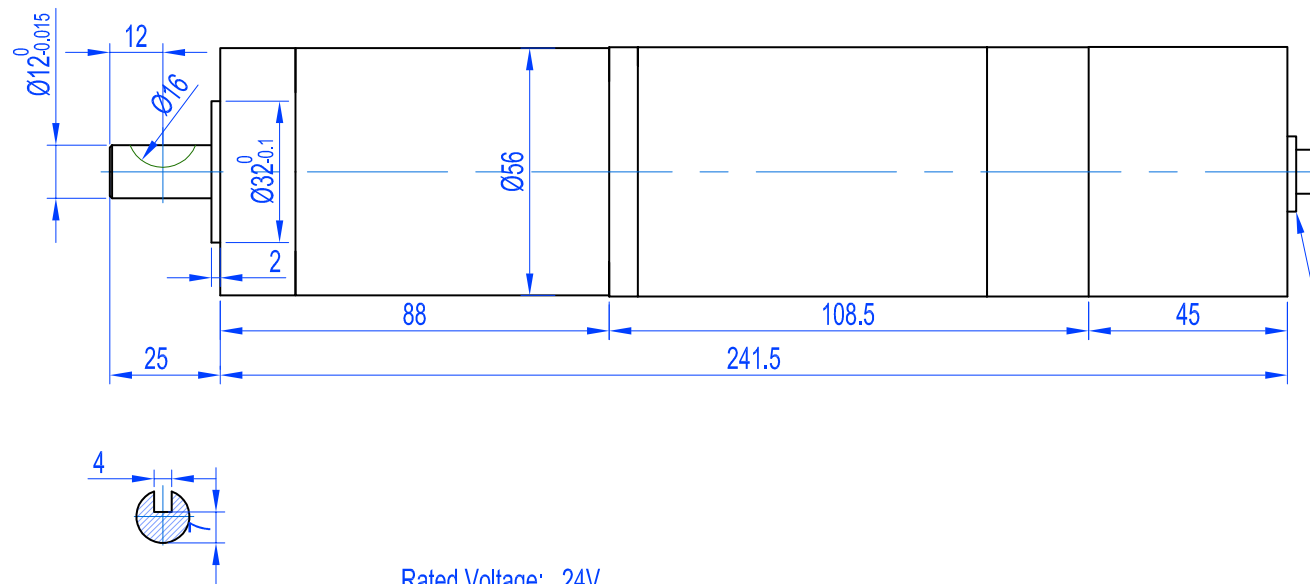


Rated Voltage: 24V
Motor Rated Speed: 1700 rpm
Ratio: 575
Output Torque: 33 N.m
Stall Torque: 60 N.m
Rated Current: <1.2A
IP:55




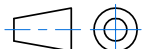
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						NTS							
GEAR MOTOR													
SYMBOL ISO		SIZE		A3		SHEET		1/1		24H-1700-575-33-V-12S-46		REV	
						THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- h , CASTING TOLERANCE ISO 8062-CT10						A	

DC Brushed Gear 24H-1800-2277-40-V-12S-40

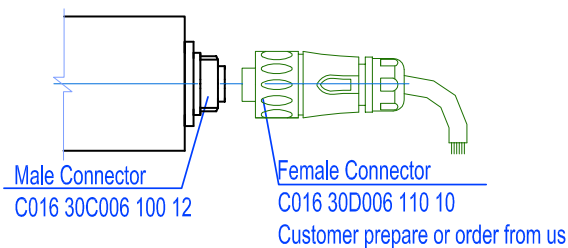
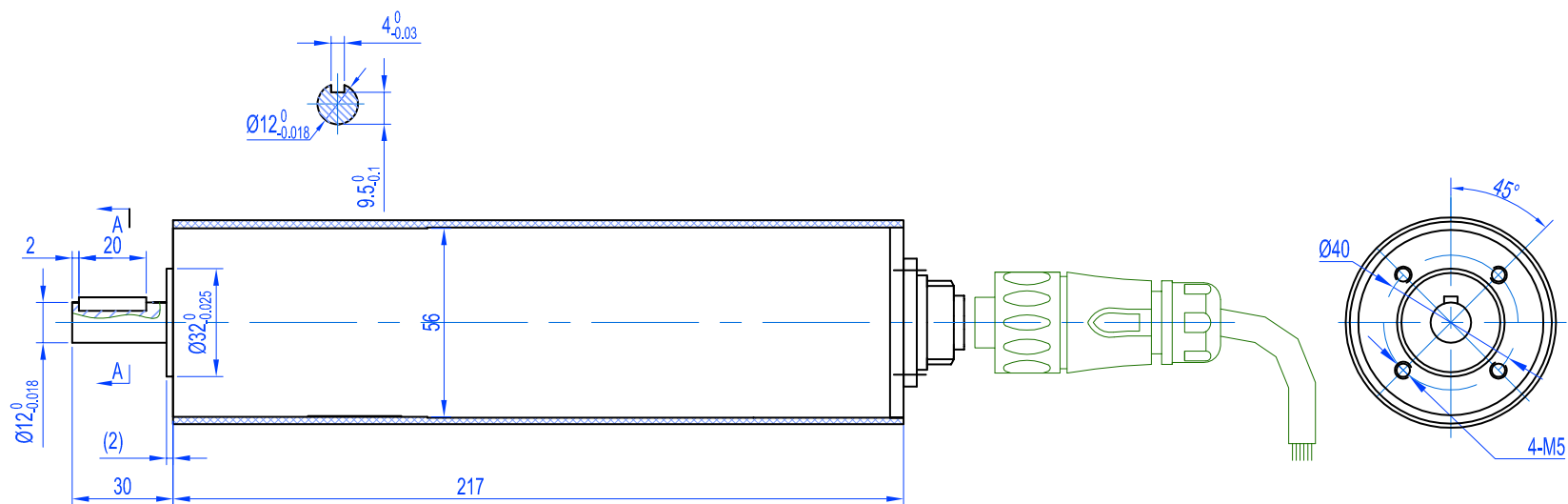


- 1.(BLACK)motor -
- 2.(RED)motor+
- 3.(BLACK)GND
- 4.(RED)hall+5V
- 5.(GREEN) hall A
- 6.(YELLOW)hall B

Rated Voltage: 24V
Motor Rated Speed: 1800 rpm
Ratio: 2277
Output Torque: 40 N.m
Stall Torqueo: 60 N.m
Rated Current: ≤ 0.6 A
IP:55


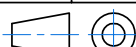
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					NTS	
SYMBOL ISO	SIZE	A3	SHEET	1/1	24H-1800-2277-40-V-12S-40	REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10			A

DC Brushed Gear 24H-1900-236-25-V-12S-40

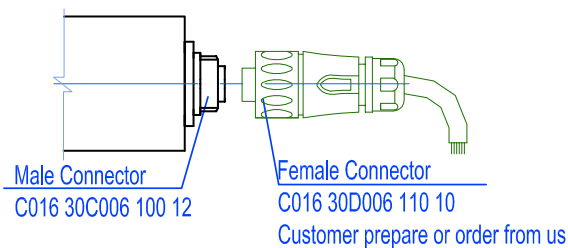
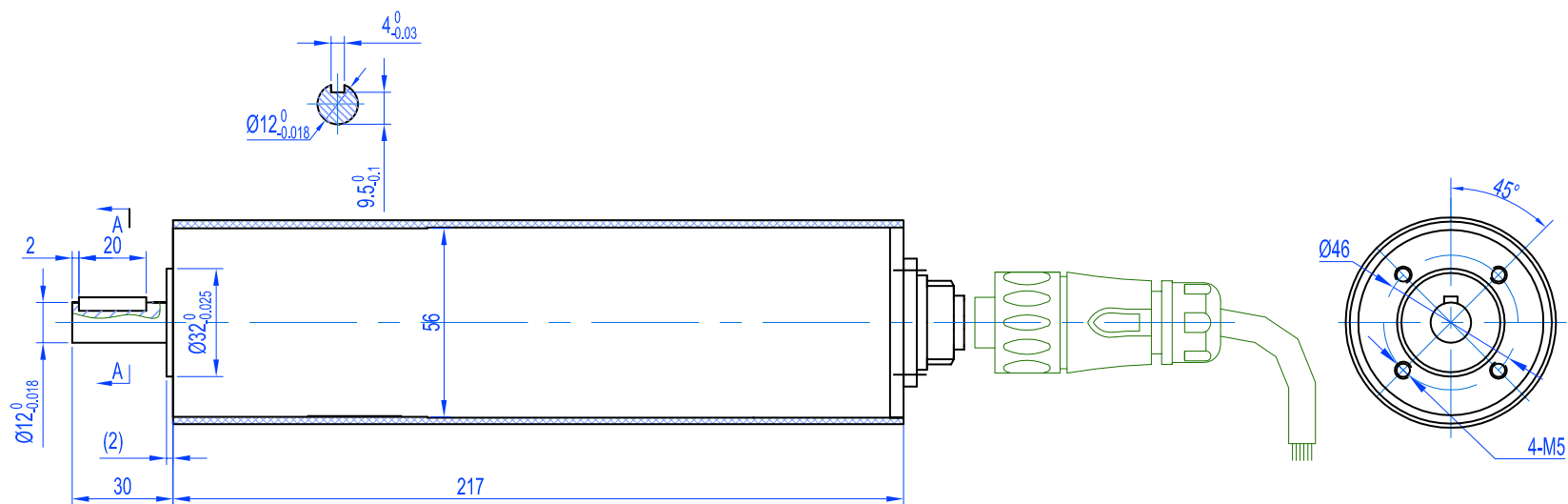


Electric Connection:
Pin 1: Motor, 0V (MOTOR INPUT), (Black thick wire inside)
Pin 2: Motor, +24V (MOTOR INPUT), (Red thick wire inside)
Pin 3: Hall, 0V (HALL INPUT), (Black thin wire inside)
Pin 4: Hall, +12V (5-24) (HALL INPUT), (Red thin wire inside)
Pin 5: Hall, Signal A (HALL OUTPUT, square wave signal) (Green thin wire inside)
Pin 6: Hall, Signal B (HALL OUTPUT, square wave signal) (Yellow thin wire inside)
Pin 7: GROUND (G)

Rated Voltage: 24V
Motor Rated Speed: 1900 rpm
Ratio: 236
Output Torque: 25 N.m
Stall Torque: 60 N.m
Rated Current: <1.8A
IP:55


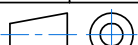
DESIGNED BY		WJY		2013/05/27			KMI GROUP		www.kinematicsmfg.com		
CHECKED BY		ZMF		2013/05/27			GEAR MOTOR				
APPROVED BY		WCH		2013/05/27							
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED, AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART, OR TO DISCLOSE ANY OF THE INFORMATION TO OTHERS.						WEIGHT		SCALE		24H-1900-236-25-V-12S-40	REV C
								NTS			
SYMBOL ISO		SIZE		A3		SHEET		1/1		24H-1900-236-25-V-12S-40	REV C
				THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10							

DC Brushed Gear 24H-1900-236-25-V-12S-46

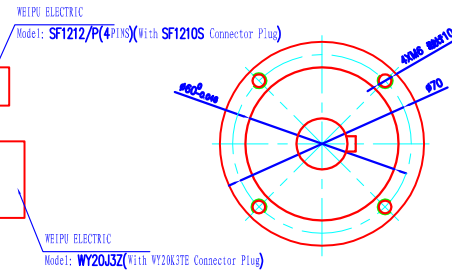
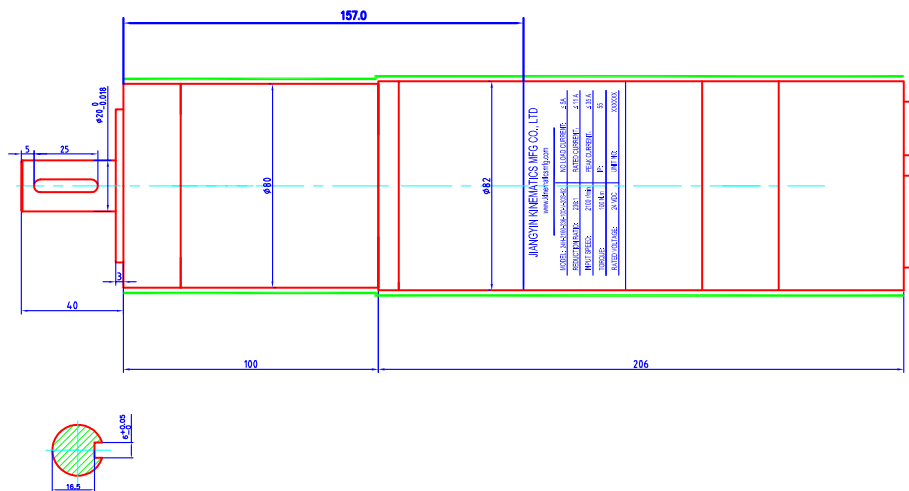


Electric Connection:
Pin 1: Motor, 0V (MOTOR INPUT), (Black thick wire inside)
Pin 2: Motor, +24V (MOTOR INPUT), (Red thick wire inside)
Pin 3: Hall, 0V (HALL INPUT), (Black thin wire inside)
Pin 4: Hall, +12V (5-24) (HALL INPUT), (Red thin wire inside)
Pin 5: Hall, Signal A (HALL OUTPUT, square wave signal) (Green thin wire inside)
Pin 6: Hall, Signal B (HALL OUTPUT, square wave signal) (Yellow thin wire inside)
Pin 7: GROUND (G)

Rated Voltage: 24V
Motor Rated Speed: 1900 rpm
Ratio: 236
Output Torque: 25 N. m
Stall Torque: 60 N. m
Rated Current: <1.8A
IP:55

DESIGNED BY		WJY		2013/05/27			KMI GROUP		www.kinematicsmfg.com			
CHECKED BY		ZMF		2013/05/27			<i>GEAR MOTOR</i>					
APPROVED BY		WCH		2013/05/27								
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								NTS				
SYMBOL ISO		SIZE		A3		SHEET		1/1		24H-1900-236-25-V-12S-46		REV B
				THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10								

DC Brushed Gear 24H-2100-236-100-V-20S-70



WY20J3Z Electric Connection:

- Pin 1: Motor, 0V (MOTOR INPUT), (Black thick wire inside)
- Pin 2: Motor, +24V (MOTOR INPUT), (Red thick wire inside)
- Pin 3: Motor, GND (MOTOR INPUT), (Black thick wire inside)

SF1212/P(4 Pins) Electric Connection:



- Pin 1: Hall, 0V (HALL INPUT), (Black thin wire inside)
- Pin 2: Hall, +12V(5-24) (HALL INPUT), (Red thin wire inside)
- Pin 3: Hall, Signal A (HALL OUTPUT, square wave signal)(Green thin wire inside)
- Pin 4: Hall, Signal B (HALL OUTPUT, square wave signal)(Yellow thin wire inside)



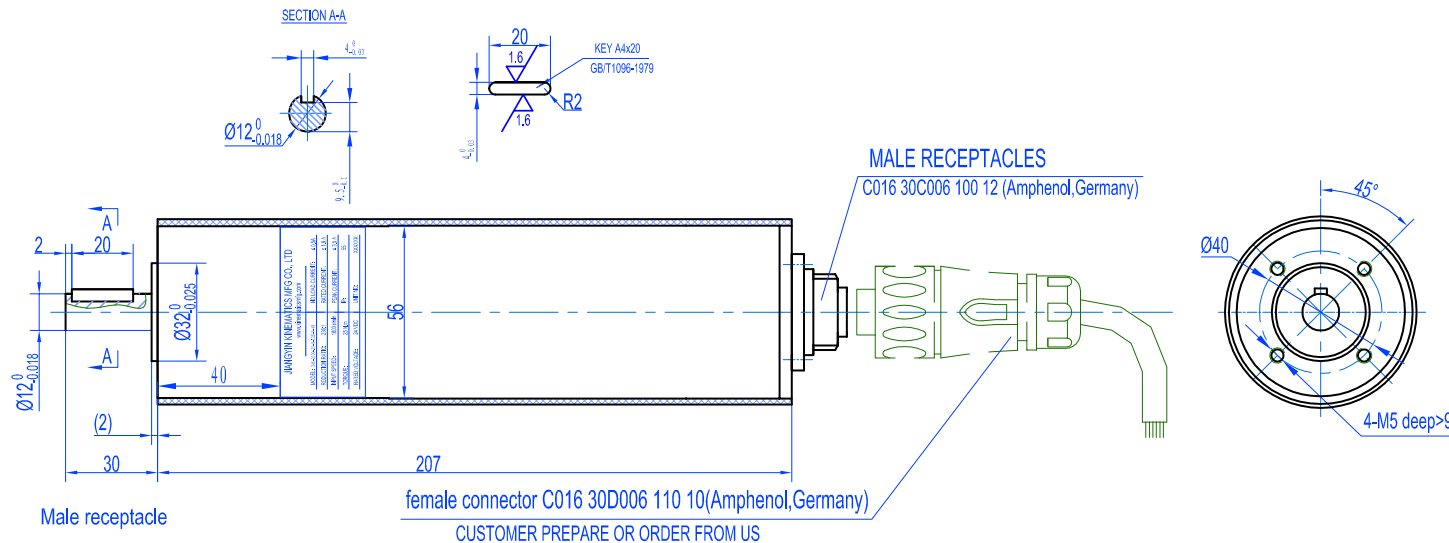
ATTENTION

Do not exchange the connection for Hall, 0V and Hall, 12V!
If you do so, Hall will be destroyed!

Motor Parameters	
Rated voltage U_n (VDC)	24
No-load speed V_n (RPM)	2250 \pm 8%
No-load current I_n (A)	<5
Current I_{av} (A)	<11
Speed V_{50} (RPM)	2100 \pm 8%
Efficiency η_m (%)	>70
Planetary Reducer Parameters	
Ratio	236: 1
Stage	3
Rated output torque T_{95} (N.m)	100
Intermittent output torque T_{15} (N.m)	150
Maximum output torque T_{30} (N.m)	200
Backlash (arcmin)	16
Efficiency η_p (%)	>70
Hall Parameters	
No. of Hall	2
Hall model	A3282
Hall signal	Open Collector
Other Parameters	
Average life-span (h)	2000h
Noise (dB)	\leq 65
Environmental temperature T_a (°C)	-40 - 80
IP	55
MAGNETIC PULSE GENERATOR DATA	
Output type	Voltage output
Pulse-relay	yes
Output signal	2 square wave signals
Phase quadrature	90°
Pulses per revolution	2 channels A and B
Operating voltage	VDC max. 12 (24V)
Operating current	mA max. 15
Deviation of pulse width	max. 15°
Deviation of phase shift	max. 15°
Output voltage (low level)	VDC max. 0.4 (20mA)
SIGNAL RISE TIME	ns 85
SIGNAL DECAY TIME	ns 80
Operating temperature	°C -40 ~ +85

DESIGNED BY	WJS 2012.10.27		KMI GROUP WWW.KINEMATICS MFG.COM		
CHECKED BY	F J 2012.10.27				
APPROVED BY	JIM 2012.10.27				
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			1:1.5		
SYMBOLE ISO	SIZE	A3	SHEET		24H-2100-236-100-V-20S-70
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-VL.		
					REV
					D

DC Brushed Gear 24H-2500-35-8-V-12S-40



Motor Parameters	
Rated voltage U_n (VDC)	24
Speed V_{rev} (RPM)	2500±8%
Rated torque T_{rn} (N.m)	0.28
Current I_{rn} (A)	<4.7
Planetary Reducer Parameters	
Ratio	35: 1
Stage	3
Rated output torque T_{rn} (N.m)	8
Maximum output torque T_{rn} (N.m)	16
Other Parameters	
Average life-span (h)	2000h
Noise (dB)	≤65
Rated efficiency η (%)	50
Environmental temperature T_a (°C)	-40 to +80
IP	55
MAGNETIC PULSE GENERATOR DATA	
Output type	Voltage output
Pull-up resistor	yes
Output signal	2 square wave signals
phase quadrature	90°
Impulses per revolution	ppr 2-channels A and B
Operating voltage	VDC UN=12 (5... 24)
Operating current	mA max. 12 (U=12V)
Deviation of pulse width	max. 15°
Deviation of phase shift	max. 15°
Output voltage (low level)	VDC max. 0.4 (20mA)
SIGNAL RISE TIME	ns 85
SIGNAL DECAY TIME	ns 80
Operating temperature	°C -40 to +85

Electric Connection:


Pin 1: Motor, 0V (MOTOR INPUT), (Black thick wire inside)
 Pin 2: Motor, +24V (MOTOR INPUT), (Red thick wire inside)
 Pin 3: Hall, 0V (HALL INPUT), (Black thin wire inside)
 Pin 4: Hall, +12V(5-24) (HALL INPUT), (Red thin wire inside)
 Pin 5: Hall, Signal A (HALL OUTPUT,square wave signal)(Green thin wire inside)
 Pin 6: Hall, Signal B (HALL OUTPUT,square wave signal)(Yellow thin wire inside)
 Pin 7: GROUND (G)

! ATTENTION

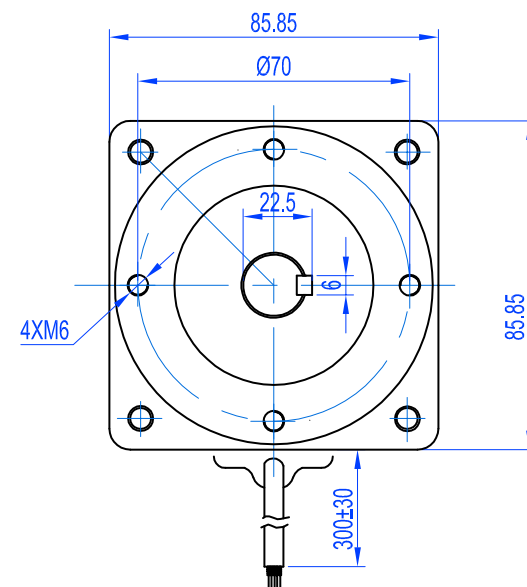
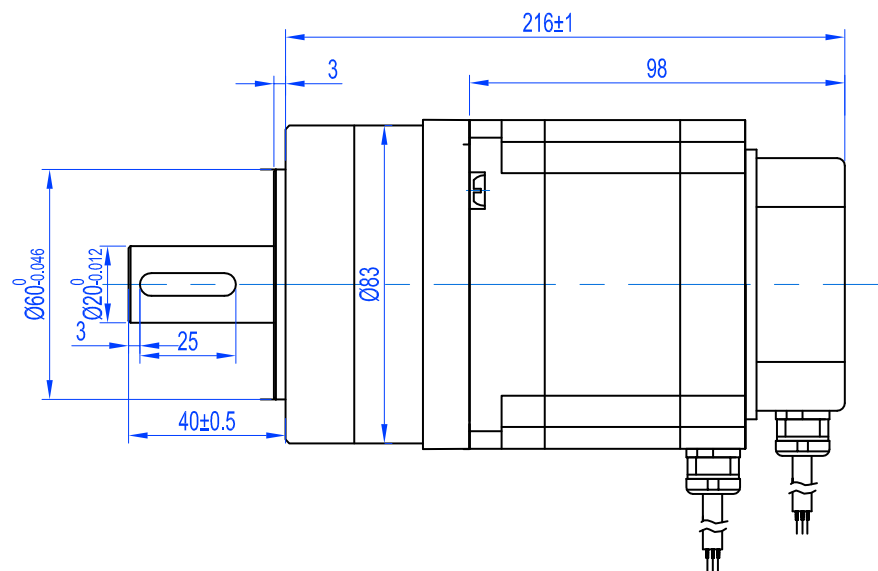
Do not exchange the connection for Pin3 and Pin4!
 If you do so, Hall will be destroyed!

Rotate Direction:

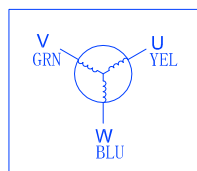
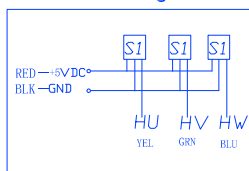
Pin 1 connect to Power (-), Pin 2 connect to Power (+), view from motor output shaft, Motor rotate on CCW direction.

DESIGNED BY	WJY	2012/04/12	 KMI GROUP www.kinematicsmfg.com	MOTOR	
CHECKED BY	ZMF	2012/04/12			
APPROVED BY	WCH	2012/04/12			
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED, AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART, OR TO DISCLOSE ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	24H-2500-35-8-V-12S-40
				NTS	
SYMBOL	ISO	SIZE	A3	SHEET	1/1
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768- μ LCASTING TOLERANCE ISO 8062-CT10		REV A

DC Brushless Gear 24LH-1350-192-60-20S-70





Connection diagram:

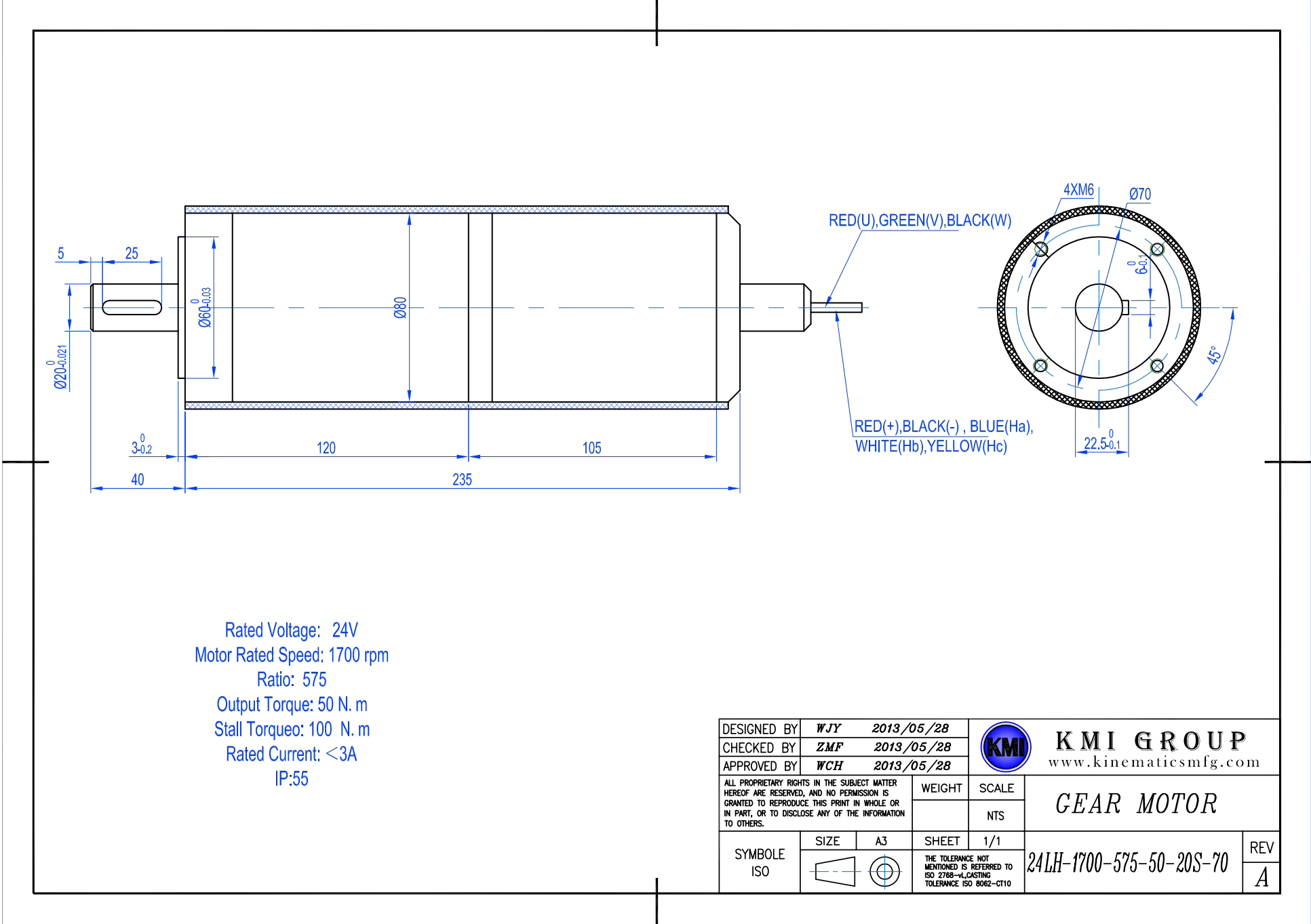


Wiring cable

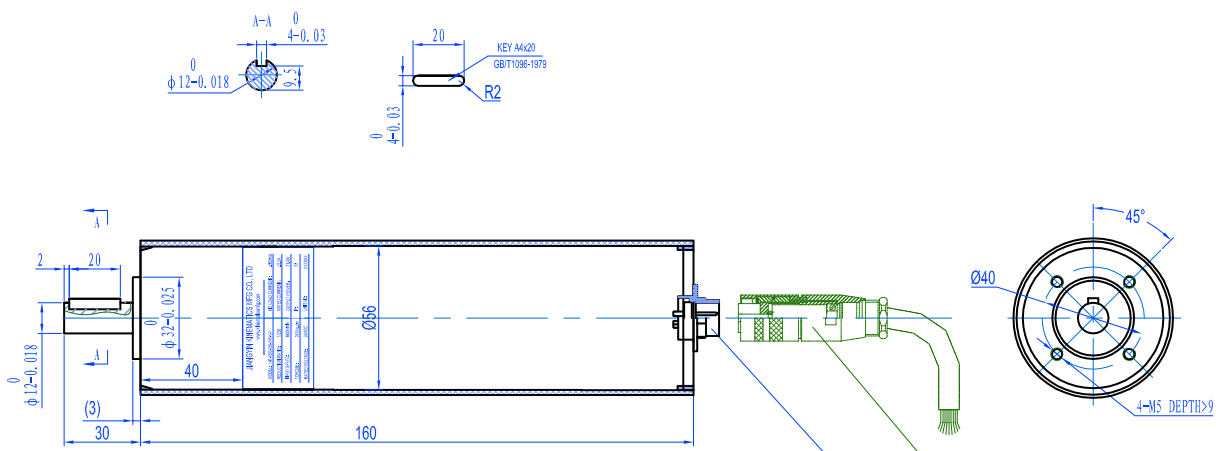
Rated Voltage: 24V
Motor Rated Speed: 1350 rpm
Ratio: 192
Output Torque: 60 N.m
Stall Torque: 120 N.m
Rated Current: 5.5A
IP:55

DESIGNED BY	WJY	2013/05/28	 KMI GROUP www.kinematicsmfg.com			
CHECKED BY	ZMF	2013/05/28				
APPROVED BY	WCH	2013/05/28				
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				NTS		
SYMBOL ISO	SIZE	A3	SHEET	1/1	24LH-1350-192-60-20S-70	REV A
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10			

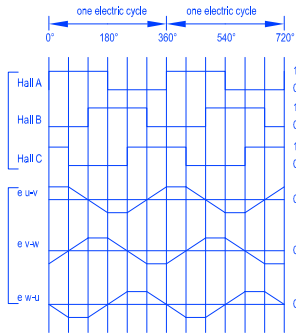
DC Brushless Gear 24LH-1700-575-50-20S-70



DC Brushless Gear 24LH-1800-236-29-12S-40



Motor Parameters	
MODEL	24V DC BRUSHLESS MOTOR
Rated voltage (VDC)	24
Rated Current (A)	≤2.2
Start Current (A)	14
Output Power (W)	23
Rated Speed (RPM)	1800
Ratio	236: 1
Rated output torque T_m (N.m)	29
Maximum output torque T_{10} (N.m)	60
IP	55
Noise (dB)	≤65
HALL	
Hall model	SS41F
No. of Hall	3
Hall signal	Open Collector
Other	
Running state	Intermittent operation
Environmental temperature T_a (°C)	-40 to +60
Rated efficiency η (%)	≥50±2%
Elevation	≤4000m
Average life-span (h)	10000h

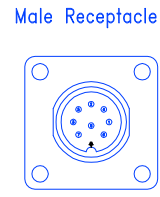


Electrical sensor phasings of 120°

SEQUENCE FOR CHVIEWED FROM MOTOR OUTPUT SHAFT						
order	A	B	C	U	V	W
I	1	0	1	DC+	DC-	-
II	1	0	0	DC+	-	DC-
III	1	1	0	-	DC+	DC-
IV	0	1	0	DC-	DC+	-
V	0	1	1	DC-	-	DC+
VI	0	0	1	-	DC-	DC+


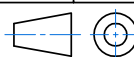
Electrical sensor phasings of 120°

SEQUENCE FOR CHVIEWED FROM MOTOR OUTPUT SHAFT						
order	A	B	C	U	V	W
I	0	0	1	-	DC+	DC-
II	0	1	1	DC+	-	DC-
III	0	1	0	DC+	DC-	-
IV	1	1	0	-	DC-	DC+
V	1	0	0	DC-	-	DC+
VI	1	0	1	DC-	DC+	-

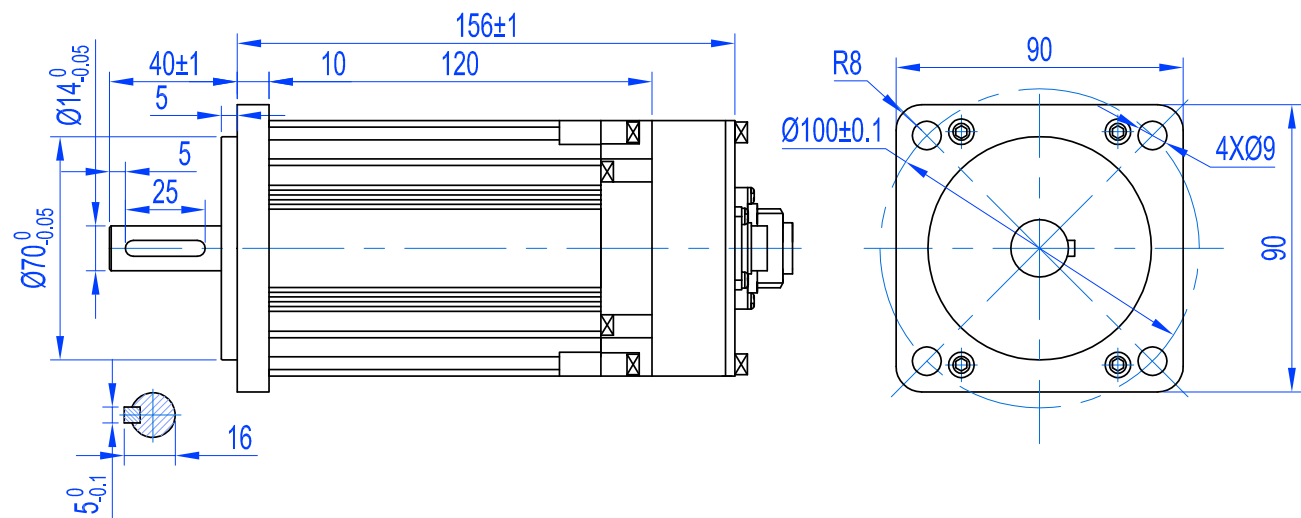


Male Receptacle Electric Connection:

- Pin 1: +5VDC, POWER FOR HALL (Red wire inside)
- Pin 2: 0VDC, POWER FOR HALL (black wire inside)
- Pin 3: Hu, (White wire inside)
- Pin 4: Hv, (Green wire inside)
- Pin 5: Hw, (Blue wire inside)
- Pin 6: U, (FOR MOTOR SUPPLY), (Yellow wire inside)
- Pin 7: V, (FOR MOTOR SUPPLY), (Brown wire inside)
- Pin 8: W, (FOR MOTOR SUPPLY), (Purple wire inside)
- SHIELD: GROUND

DESIGNED BY		WJY		2012/09/20			KMI GROUP www.kinematicsmfg.com	
CHECKED BY		ZMF		2012/09/20				
APPROVED BY		WCH		2012/09/20				
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							NTS	
SYMBOL ISO	SIZE	A3	SHEET	1/1	24LH-1800-236-29-12S-40			REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-vL,CASTING TOLERANCE ISO 8062-CT10					A


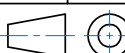
DC Brushless Gear 24LH-1900-0.7-14S-100



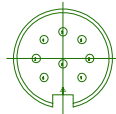
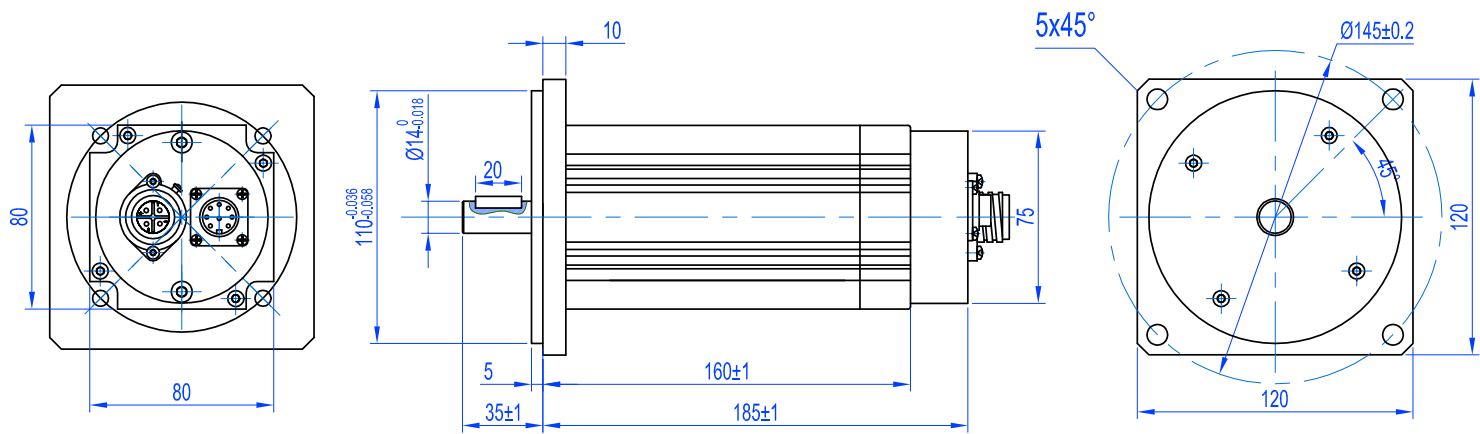
C091 31S008 100 2
Pin 1:+5V (RED)
Pin 2:0V (BLACK)
Pin 3:Hu (GREEN)
Pin 4:Hv (BLUE)
Pin 5:Hw (YELLOW)
Pin 6:None
Pin 7:None
Pin 8:None

C016 20C003 100 12
Pin 1:U (YELLOW)
Pin 2:V (GREEN)
Pin 3:W (BLUE)
Pin E:GND

Rated Voltage: 24V
Motor Rated Speed: 1900 rpm
Ratio: /
Output Torque: 0.7 N. m
Stall Torque: 1.4 N. m
Rated Current: 12.8 A
IP:55

DESIGNED BY		WJY		2013/06/03			KMI GROUP www.kinematicsmfg.com	
CHECKED BY		ZMF		2013/06/03				
APPROVED BY		WCH		2013/06/03				
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							NTS	
SYMBOL ISO	SIZE		A3	SHEET	1/1	24LH-1900-0.7-14S-100		REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10					D

DC Brushless Gear 24LH-1900-1.5-14S-145





C091 31S008 100 2
Pin 1:+5V (RED)
Pin 2:0V (BLACK)
Pin 3:Hu (BLUE)
Pin 4:Hv (WHITE)
Pin 5:Hw (YELLOW)
Pin 6:None
Pin 7:None
Pin 8:None



C016 20C003 100 12
Pin 1:U (BLUE)
Pin 2:V (WHITE)
Pin 3:W (YELLOW)
Pin E:GND

Rated Voltage: 24V
Motor Rated Speed: 1900 rpm
Ratio: /
Output Torque: 1.5 N.m
Stall Torqueo: 3.0 N.m
Rated Current: 24A
IP:55

DESIGNED BY		WJY		2013/06/03			KMI GROUP www.kinematicsmfg.com	
CHECKED BY		ZMF		2013/06/03				
APPROVED BY		WCH		2013/06/03				
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							NTS	
SYMBOL ISO	SIZE	A3	SHEET	1/1	24LH-1900-1.5-14S-145			REV
			THE TOLERANCE NOT MENTIONED IS REFERRED TO ISO 2768-M-CASTING TOLERANCE ISO 8062-CT10					A