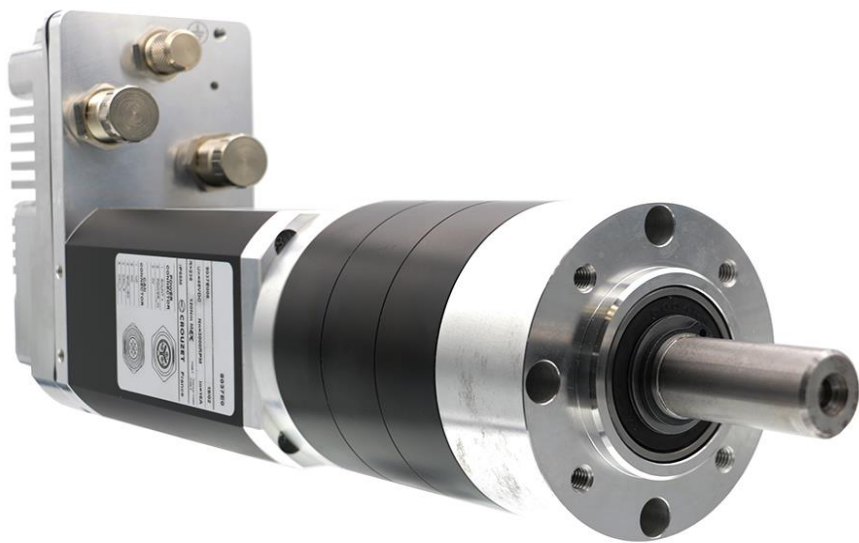


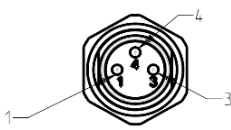
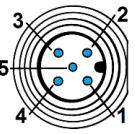
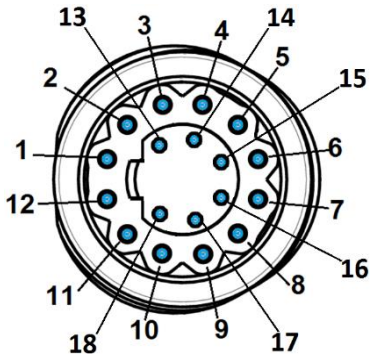


General characteristics

Part numbers				
Geared motor		8037E001	8037E003	8037E005
Geared motor + brake		8037E101	8037E103	8037E105
Gearbox characteristics				
Gearbox type		Planetary P81		
Number of stage		1 stage	2 stages	3 stage
Max. radial force (16mm from front face)	N	400	600	1000
Max. axial force	N	80	120	200
RATIO		5,18	26,85	139,13
Max. allowed torque	Nm	20	60	120
Max. gear play	°	0,5	0,55	0,6
Geared motor characteristics at 48V (5)				
At no load				
Max. output speed	rpm	660	127	25
Standby current	mA	50	50	50
At nominal				
Speed	rpm	604	117	23
Torque (2)	Nm	8	38	120
Output power	W	498	467	292
Current	A	15,1	15,1	15,1
Efficiency	%	69	64	40
At max. output power				
Speed	rpm	518	110	23
Torque	Nm	20	60	120
Output power	W	1 085	694	292
Current	A	44	44	44
Efficiency	%	51	33	14
At peak torque				
Speed	rpm	518	110	23
Torque	Nm	20	60	120
Output power	W	1 085	694	292
Current	A	44	44	44
Others				
Weight without brake	kg	5,1	6,0	6,5
Weight with brake	kg	5,8	6,7	7,2

Connecting

I/O M16 connector 18 pins	Pin N°
Optional logic supply	1
0 Volt	2
Input 6 (analogic 1)	3
Input 5 (analogic 2)	4
Input 1 (digital)	5
Input 2 (digital)	6
Input 3 (digital)	7
Input 4 (digital)	8
0 Volt	9
Output 1 (digital - PWM)	10
Output 2 (digital - PWM)	11
Output 3 (digital)	12
Output 4 (digital)	13
0 Volt	14
STO 2 -	15
STO 2 +	16
STO 1 -	17
STO 1 +	18
Power supply M16 connector 3 pins	Pin N°
Output ballast	1
+VDC	2
0 Volt	3
CAN M12 Connector - 5 pins	Pin N°
Not connected	1 / 2
CAN_GND	3
CAN_H	4
CAN_L	5
Brake connector	Pin N°
0 Volt	1
24 Vdc	3
Not connected	4



Motor Characteristics (1)

Motor type	80 370 001 - V1*	
Direct current voltage supply	✓	
Nominal voltage range	Vdc	9 --> 75
Max.current	A	75

Drive

Type	SMI22 CAN
Built-in drive	✓
Internal magnetic encoder	4096 pulses/rev
Setting software on PC	DCmind soft CAN Open

Control

Position - speed - torque	✓
4 quadrants	✓
With regenerative energy absorber (3)	✓
Type" Field Oriented Control"	✓

Security

Wrong polarity from power supply	✓	
Output shortcut	✓	
Input inverted	✓	
Low voltage	Vdc	< 9
Overvoltage (4)	Vdc	> 75
Internal drive temperature protection	°C	110
Temperature drive allowing to restart	°C	90

Geared motor parameters

Output shaft with ball bearings		✓	
2 Safe Torque Off inputs	IEC61800-5-2/62061, ISO13849	✓	
Temperature range	IEC60068-2-1/2	°C	-30 -> +70
Storage temperature		°C	-40 -> +80
Dielectric (1s/2mA)	IEC60335	Vdc	1 955
Motor insulation	IEC60085	class	E
Salt spray	ISO9227	severity	48h

EMC

Electrostatic discharge	IEC61000-4-2	level	3
Radiated field	IEC61000-4-3	level	3
Electrical fast transient/burst test	IEC61000-4-4	level	3
Surge test	IEC61000-4-5	level	1
Conducted disturbances	IEC61000-4-6	level	3
Radiated emission	EN55022	class	B

Approvals

ROHS	2011/65/CE	✓
EC		✓
UL		Pending
CAN Open	CIA 301 - DSP 402	✓

Communication

USB (Setting, monitoring)	Micro-USB B	
CAN open: address - node ID (factory settings)		0x20
CAN open: baud rate (factory settings)	kbaud	1 000

Brake characteristics

Power OFF brake	YES	
Voltage supply	Vdc	24 (+6% ; -10%)
Nominal holding torque	Nm	4,5
Input power	W	12

Notes

Values without tolerances are average production values.
(1) Cold motor, 20°C ambient temp., full speed, sinusoidal commutation
(2) Nominal torque for continuous operation at 20 °C, decrease this value for higher ambient temperature
(3) Ballast resistor to be added
(4) Can be configured via DCmind soft+CANopen
(5): Other values available, please refer to direct motor datasheet
* V1: see label on product

Additionaln information is available in the SQ75 product user manual and in the starter kit manual, available in www.crouzet.com

Drive electrical data

Running data				
Parameters		Min.	Typical	Max.
Voltage power supply "Vdc"	Vdc	9	24	75
Current "Idc"	A	-	15	60
Standby power "Wo"	W	-	2	-
Voltage optional logic supply (see wiring diagram)	Vdc	9	-	75*

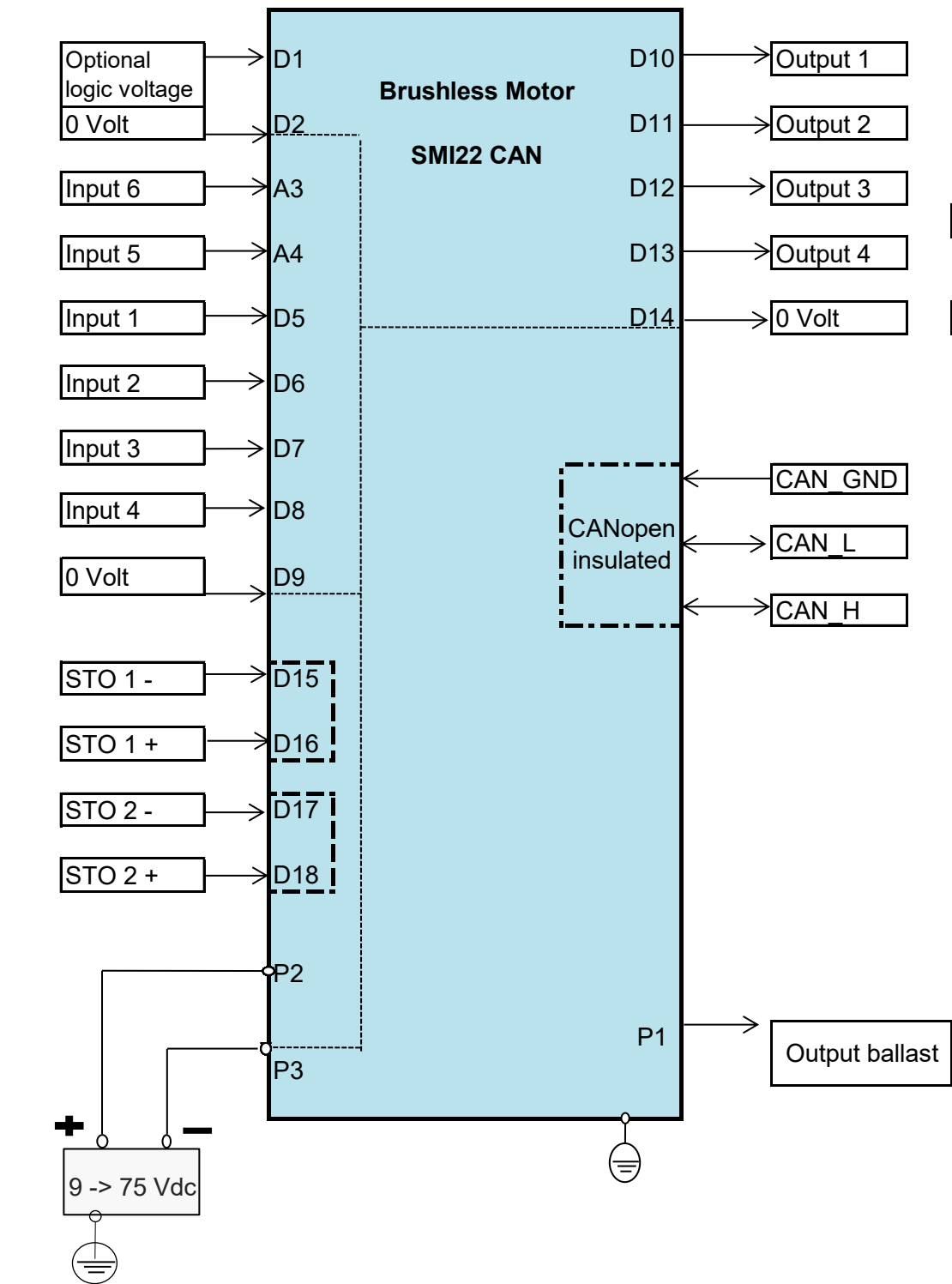
* UL: maximum voltage supply: 36 Vdc

CAN Bus characteristics				
Parameters		Min.	Typical	Max.
CAN_L insulated	Vdc	0,5	1,5	2,25
CAN_H insulated	Vdc	2,75	3,5	4,5

Accessories

Starter kit				
Part number 79 513 105				
Power/logic/CAN 3 m cables - Software - USB to Can Open adapter - CAN terminal resistor - CAN double connector				
Power supply cable	79 298 664	3m length	AWG18	
Input-Output cable	79 513 106	3m length	AWG24	
CAN cable M12	27 358 015	1m length	AWG26	

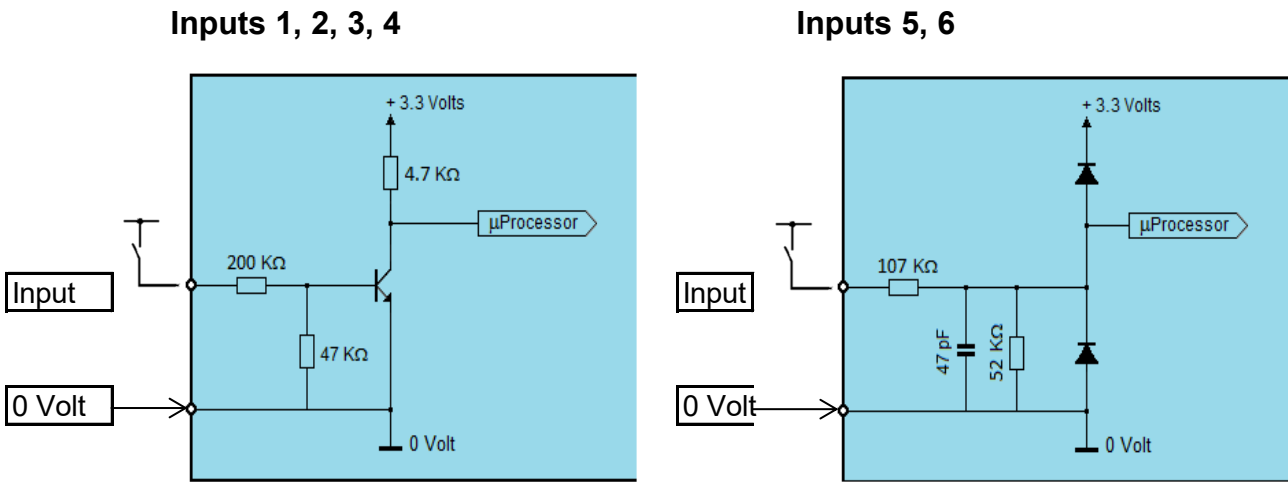
Wiring



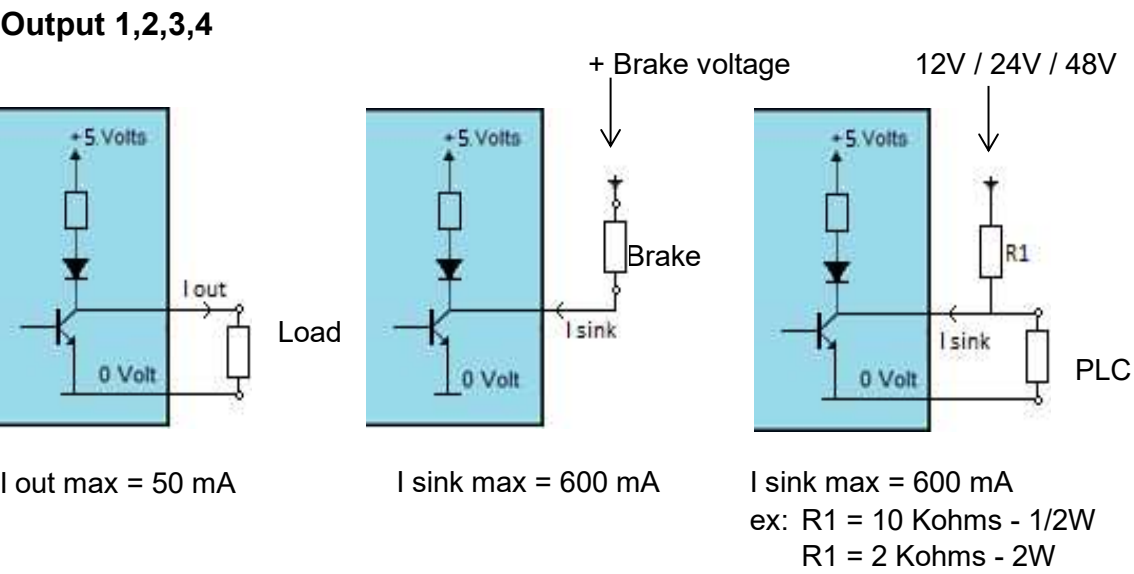
Input data				
Parameters		Min.	Typical	Max.
Input 1, 2, 3, 4	Impedance	kΩ	-	247
	Low level	Vdc	-90	-
	High level	Vdc	4,5	-
Input 5, 6	Impedance	kΩ	-	159
	Low level	Vdc	-90	-
	High level	Vdc	7,1	-
Inputs STO	Low level	Vdc	-2	-
	High level	Vdc	4,6	-

Output data				
Parameters		Min.	Typical	Max.
Low level Output 1, 2, 3, 4		mVdc	-	10
High level Output 1, 2, 3, 4		Vdc	-	4,75
Max output current "I outmax"		mA	-	50
I sink		mA	-	600

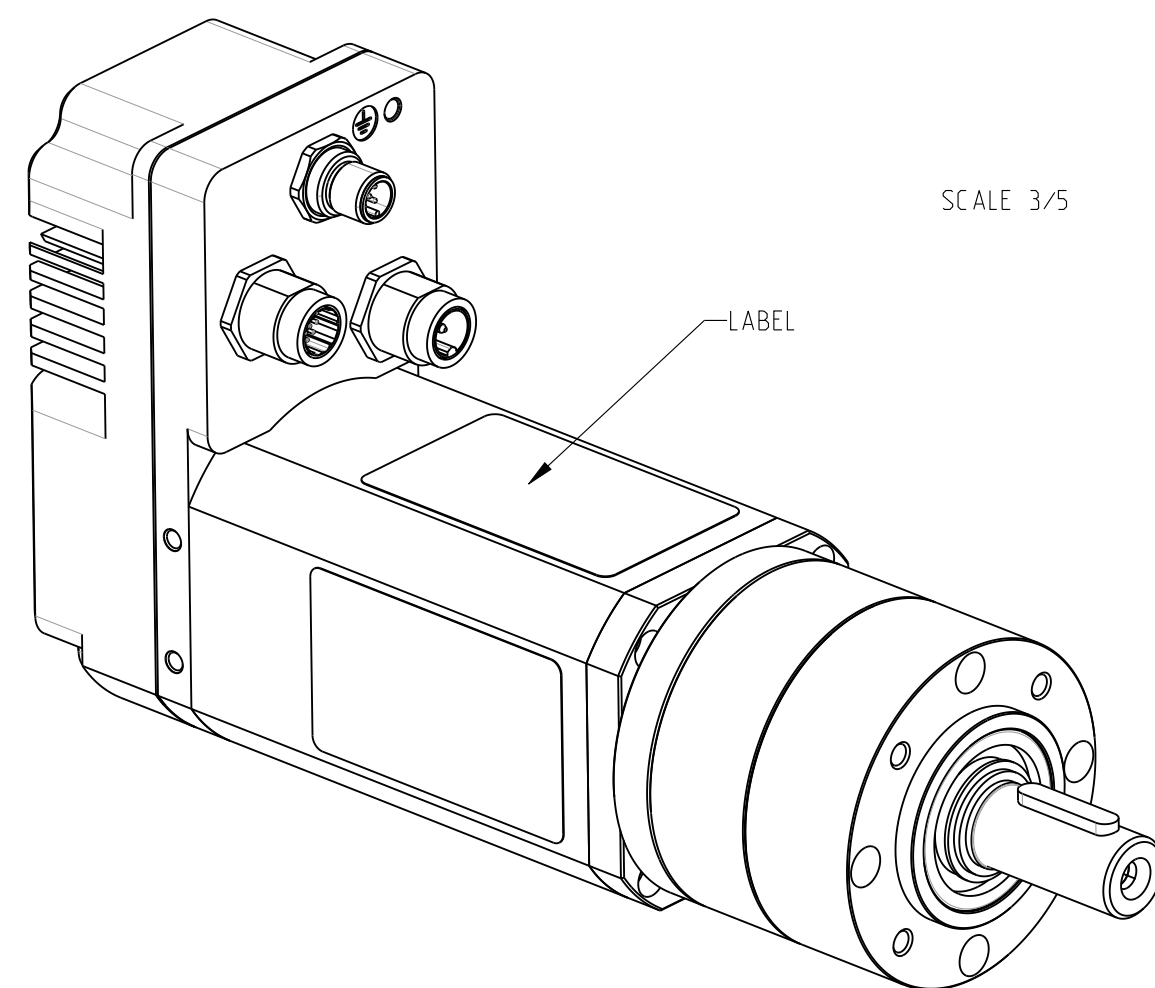
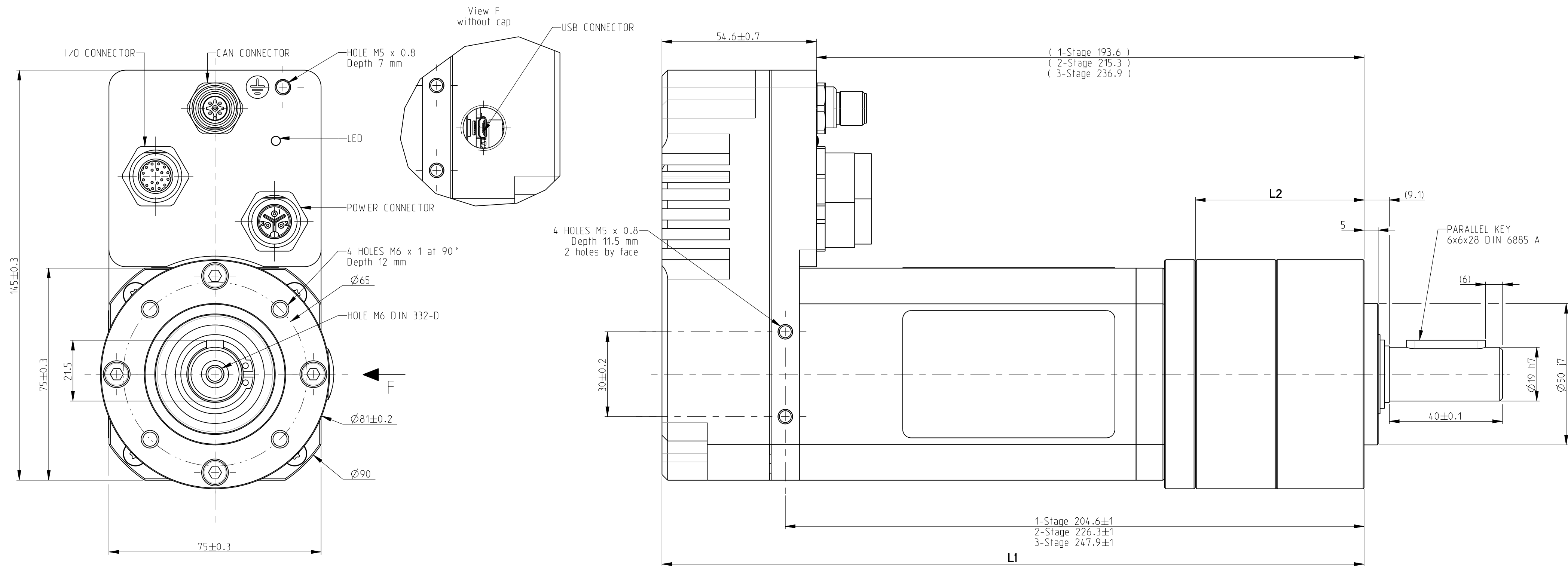
Input equivalent circuit



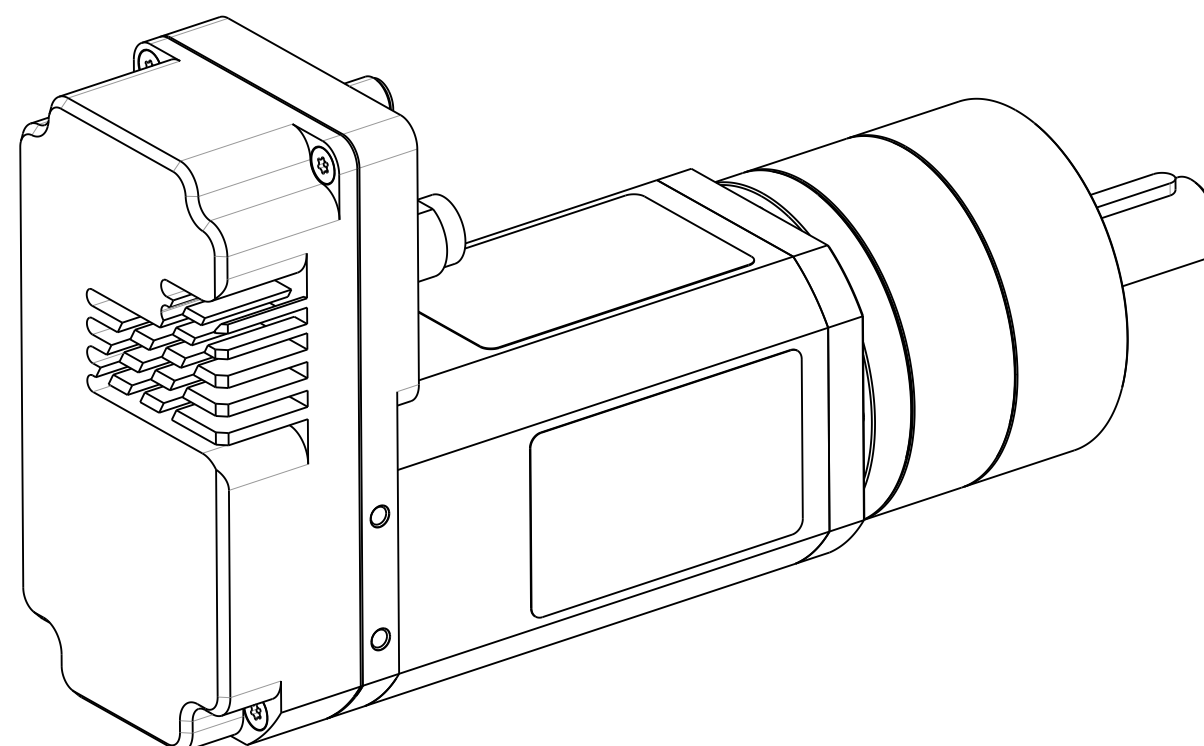
Output equivalent circuit



Regenerative energy created per inertia load creates over-voltage. In case of too high value, connect R2 resistor through ballast output and ground to absorb this energy. Typical R2 value is 2.2 Ω. Power value depends from machine inertia. Max. voltage can be set.



SCALE 3/5



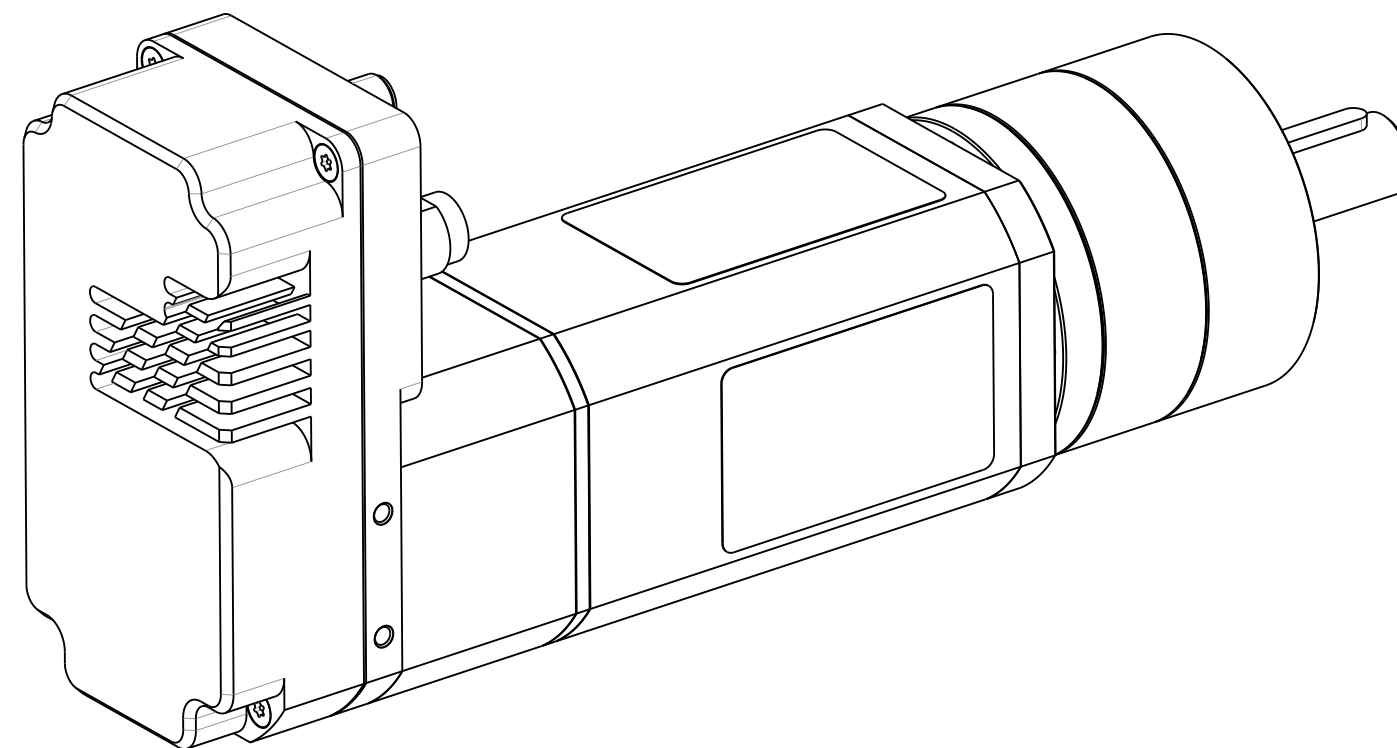
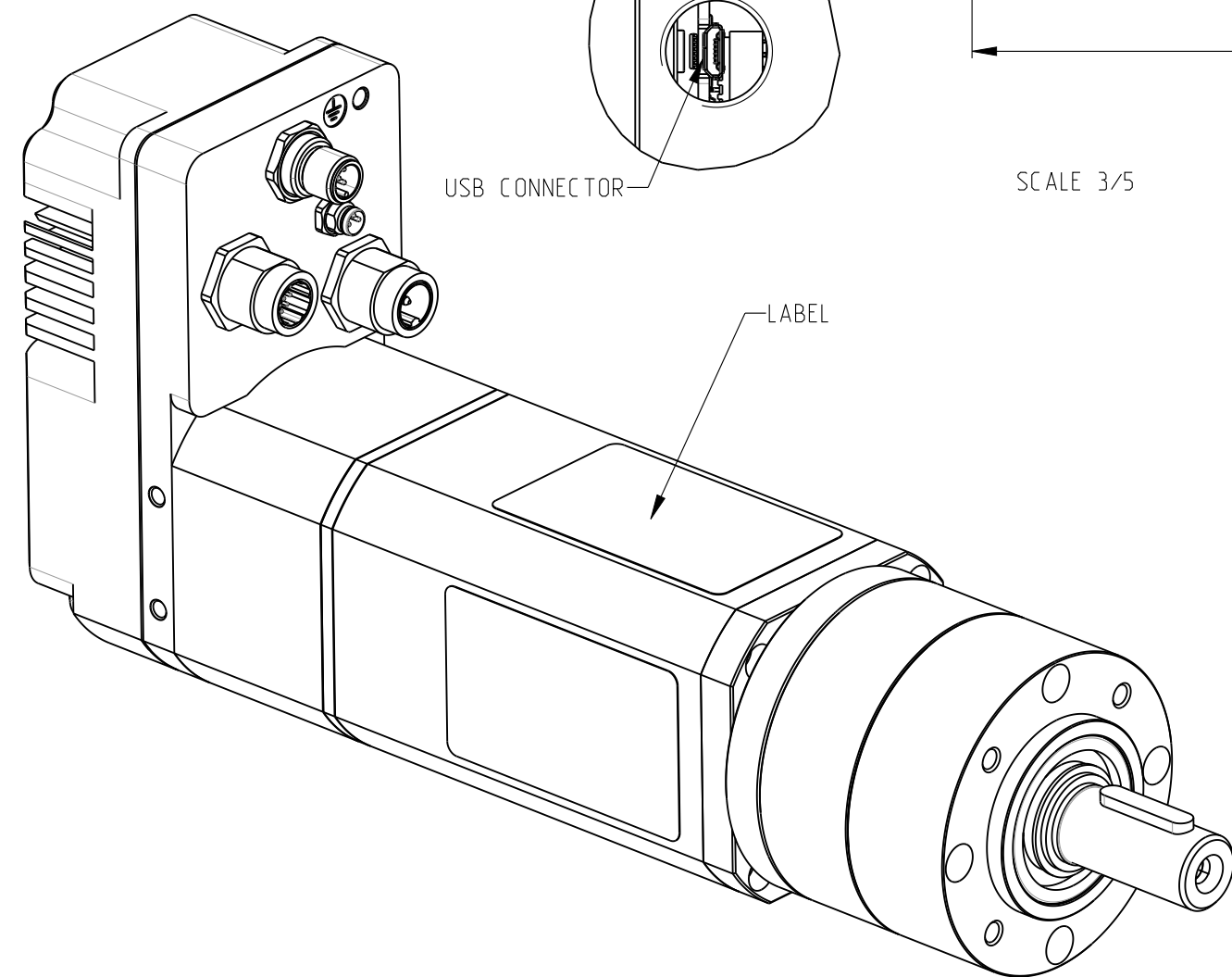
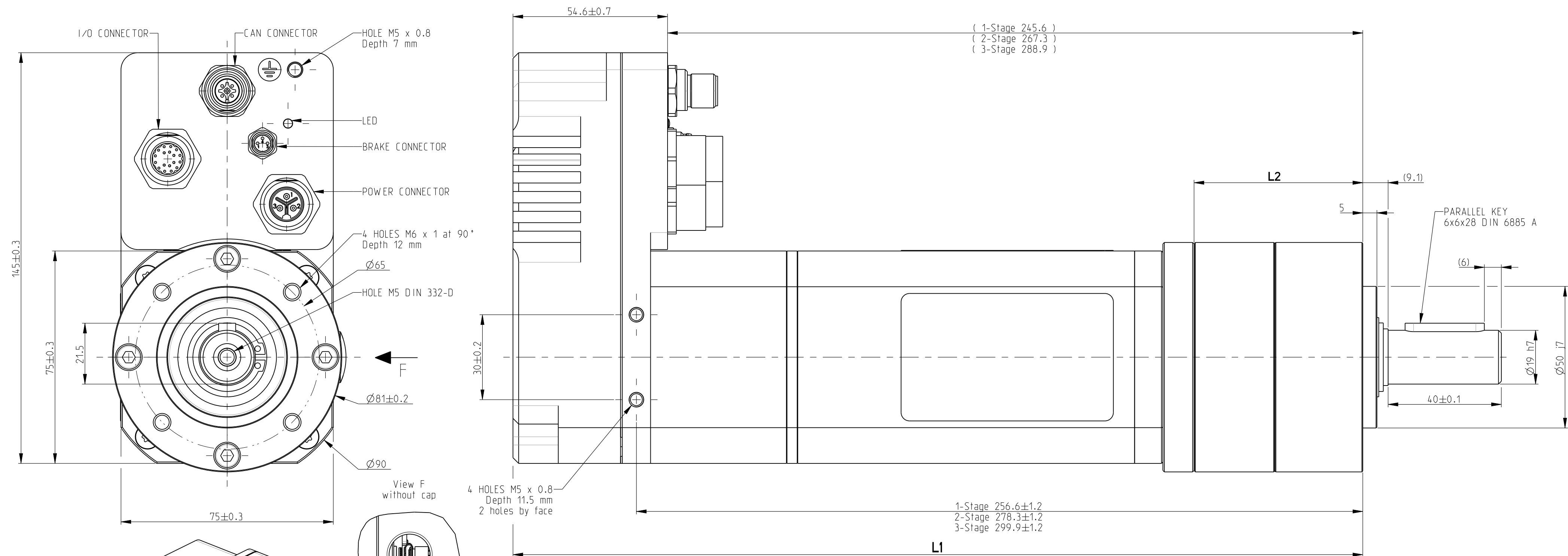
L1 (± 1.35)		L1 MAX
PM72 1-STAGE	248.15	249.50
PM72 2-STAGE	269.85	271.20
PM72 3-STAGE	291.45	292.80

L2 (± 0.5)		L2 MAX
P81 1-STAGE	59.60	60.10
P81 2-STAGE	81.30	81.80
P81 3-STAGE	102.90	103.40

GEAR MOTOR AVAILABLE						
	80 37E 001	80 37E 002	80 37E 003	80 37E 004	80 37E 005	80 37E 006
REDUCTION GEARBOX AVAILABLE						
LENGTH_L	59.6	81.3	81.3	102.9	102.9	102.9
SCREWS_PROVIDED	4x CHC M5 x50	4x CHC M5 x70	4x CHC M5 x70	4x CHC M5 x90	4x CHC M5 x90	4x CHC M5 x90
MATERIAL_WHEELS_FOR_STAGE_1	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL
NUMBER_OF_STAGES	1	2	2	3	3	3
RATIO	5.18	19.2	26.85	99.52	139.13	236
Reference	79297930	79297933	79297931	79297934	79297932	79297950

80370 V1 + P81

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L1 (±155)		L1 MAX
PM72 1-STAGE	300.15	301.70
PM72 2-STAGE	321.85	323.40
PM72 3-STAGE	343.45	345.00

L2 (±0.5)		L2 MAX
P81 1-STAGE	59.60	60.10
P81 2-STAGE	81.30	81.80
P81 3-STAGE	102.90	103.40

	GEAR MOTOR AVAILABLE					
	80 37E 101	80 37E 102	80 37E 103	80 37E 104	80 37E 105	80 37E 106
REDUCTION GEARBOX AVAILABLE						
LENGTH_L	59.6	81.3	81.3	102.9	102.9	102.9
SCREWS_PROVIDED	4x CHC M5 x50	4x CHC M5 x70	4x CHC M5 x70	4x CHC M5 x90	4x CHC M5 x90	4x CHC M5 x90
MATERIAL_WHEELS_FOR_STAGE_1	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL
NUMBER_OF_STAGES	1	2	2	3	3	3
RATIO	5.18	19.2	26.85	99.52	139.13	236
Reference	79297930	79297933	79297931	79297934	79297932	79297950

80370 V1 + P81 + BRAKE



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