



General characteristics

Part numbers				
Geared motor	80372001	80372003	80372005	
Geared motor + brake	80372101	80372103	80372105	

Gearbox characteristics				
Gearbox type		RAD 20		
Max. radial force	N	1830	1830	1830
Max. axial force	N	366	366	366
RATIO		5	10	20
Max. allowed torque	Nm	20	20	20
Max. gear play	°	0,55	0,55	0,55

Geared motor characteristics at 48V (5)

At no load				
Max. output speed	rpm	684	342	171
Standby current	mA	50	50	50

At nominal				
Speed	rpm	626	313	157
Torque (2)	Nm	6	10	19
Output power	W	374	343	311
Current	A	15,1	15,1	15,1
Efficiency	%	52	47	43

At max. output power				
Speed	rpm	468	286	156
Torque	Nm	18	20	20
Output power	W	882	600	326
Current	A	44	44	44
Efficiency	%	42	28	15

At peak torque				
Speed	rpm	468	286	156
Torque	Nm	18	20	20
Output power	W	882	600	326
Current	A	44	44	44

Others				
Weight without brake	kg	4,5	4,5	4,5
Weight with brake	kg	5,2	5,2	5,2

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 250
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	

Additional 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

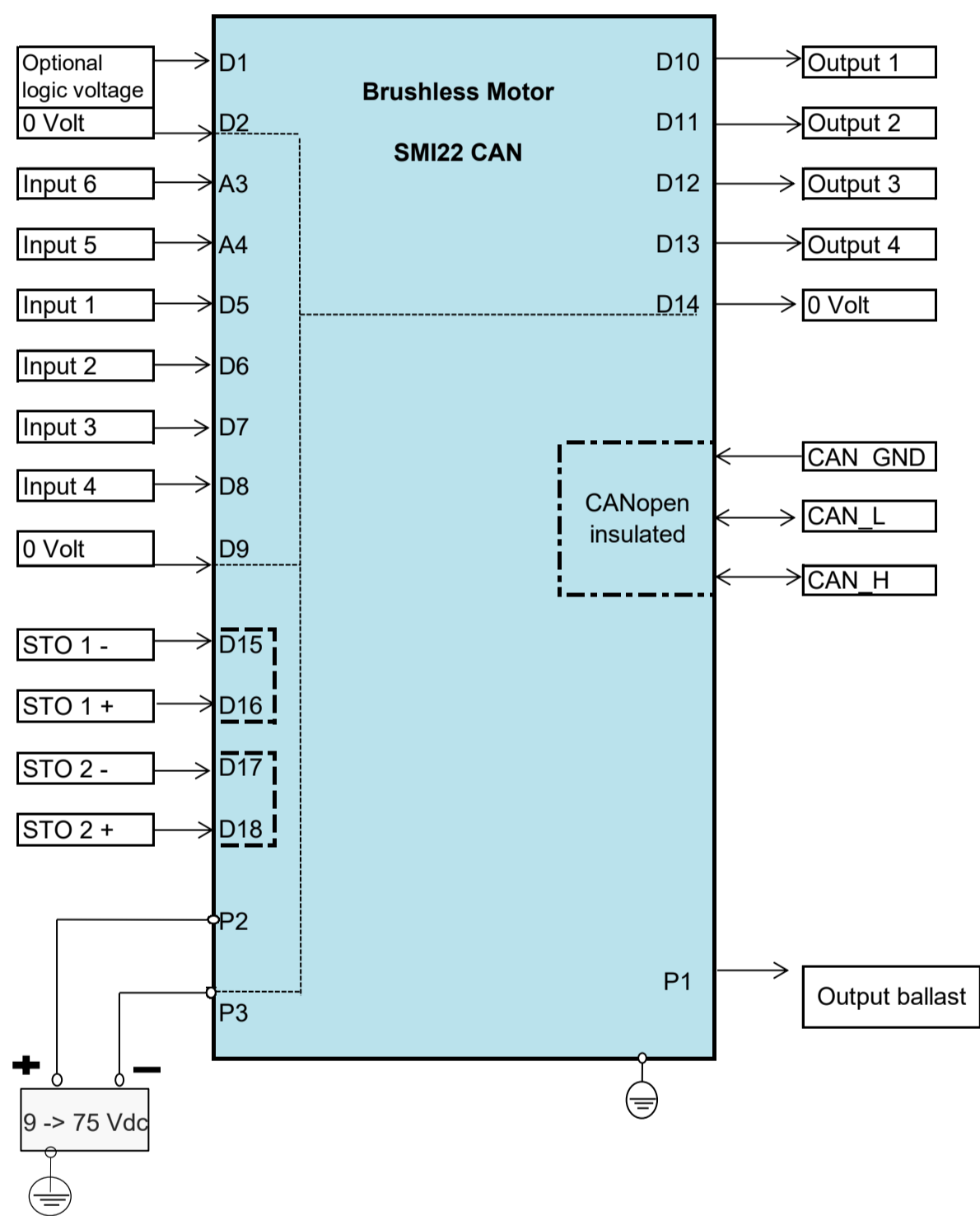
Starter kit

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

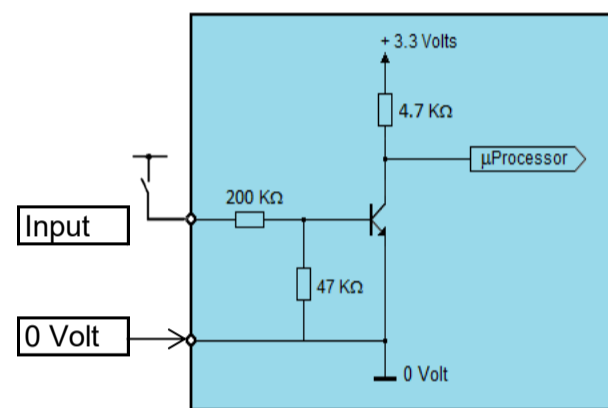
Parameters		Min.	Typical	Max.
Input 1, 2, 3, 4	Impedance	kΩ	-	247
	Low level	Vdc	-90	-
	High level	Vdc	4,5	-
Input 5, 6	Impedance	kΩ	-	159
	Low level	Vdc	-90	-
	High level	Vdc	7,1	-
Inputs STO	Low level	Vdc	-2	-
	High level	Vdc	4,6	-

Output data

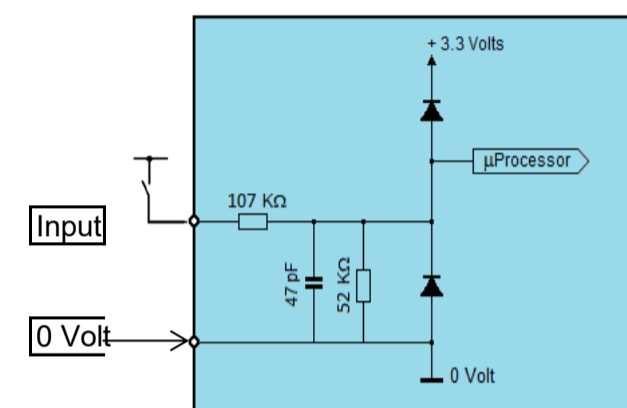
Parameters		Min.	Typical	Max.
Low level Output 1, 2, 3, 4	mVdc	-	-	10
High level Output 1, 2, 3, 4	Vdc	-	4,75	-
Max output current "I outmax"	mA	-	-	50
I sink	mA	-	-	600

Input equivalent circuit

Inputs 1, 2, 3, 4

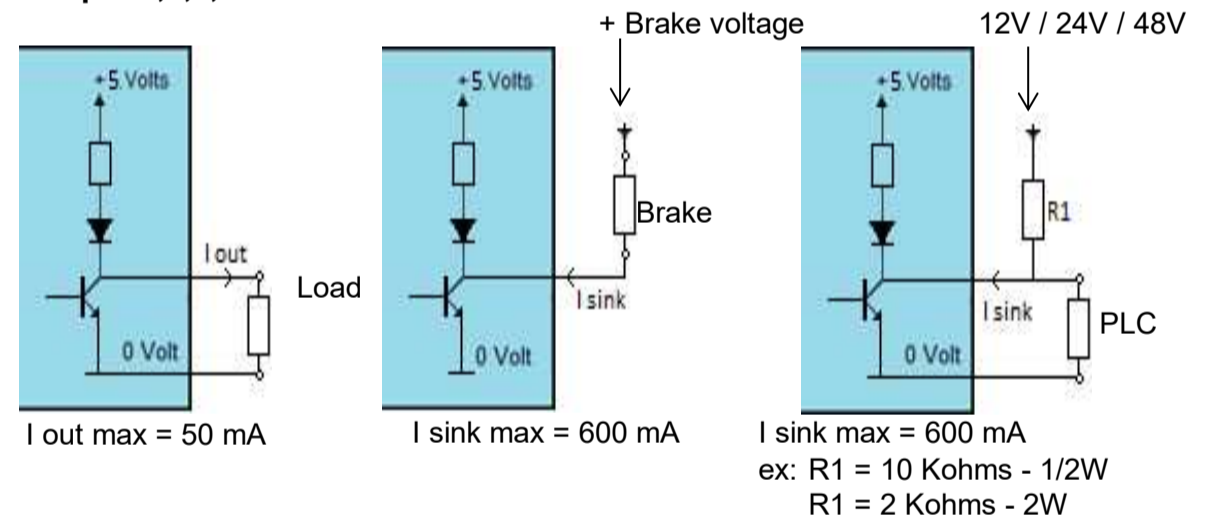


Inputs 5, 6

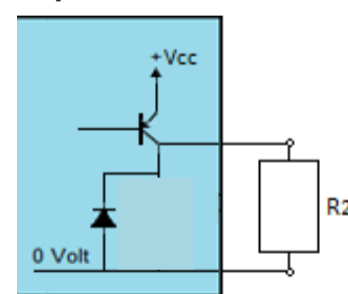


Output equivalent circuit

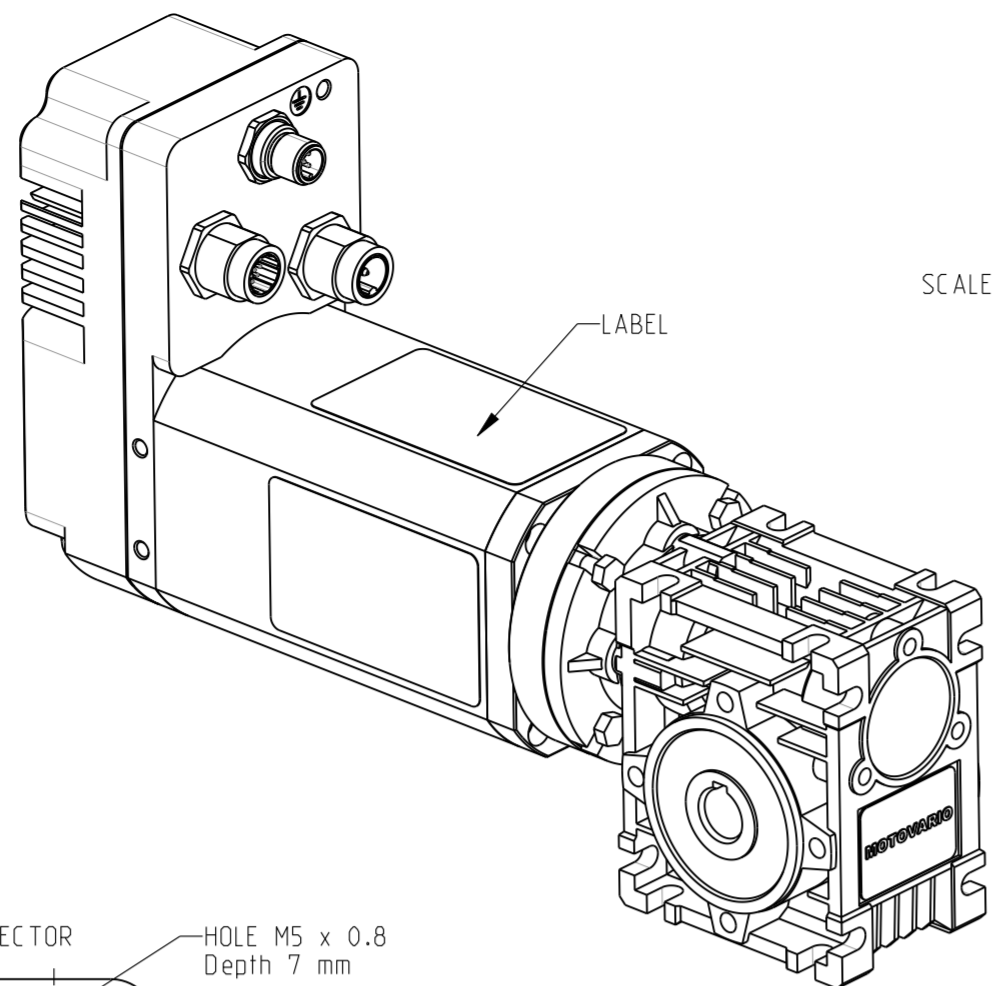
Output 1,2,3,4



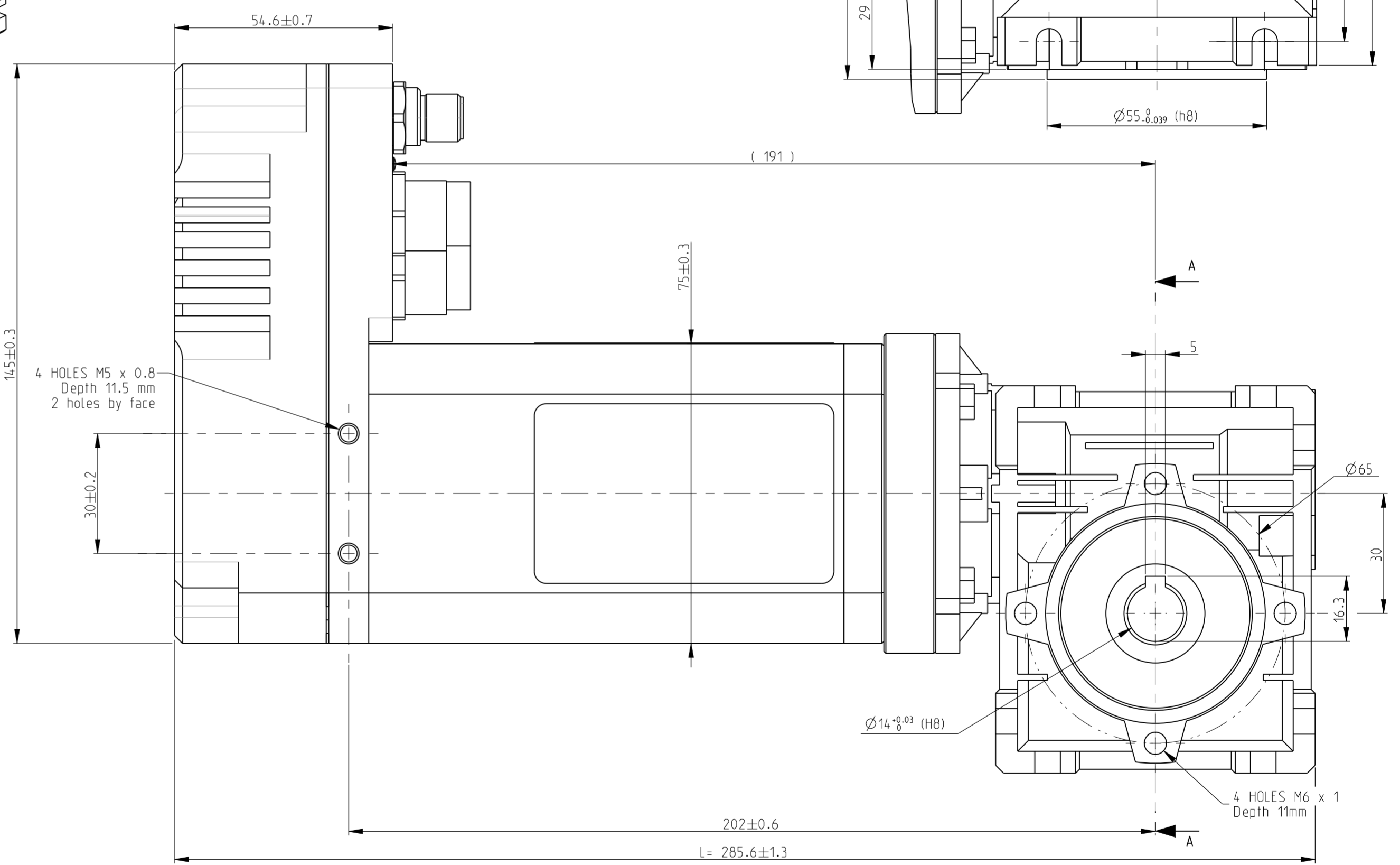
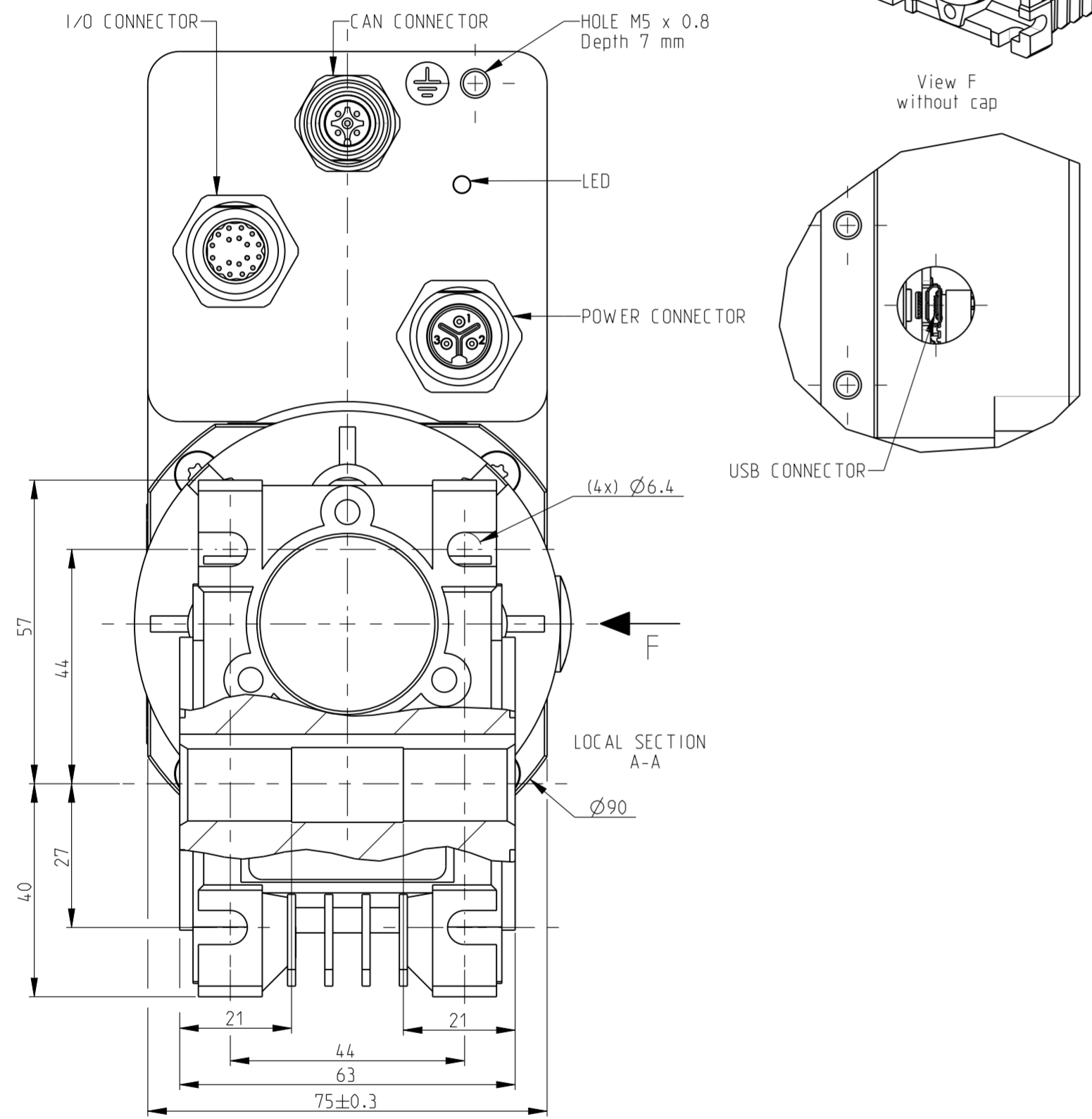
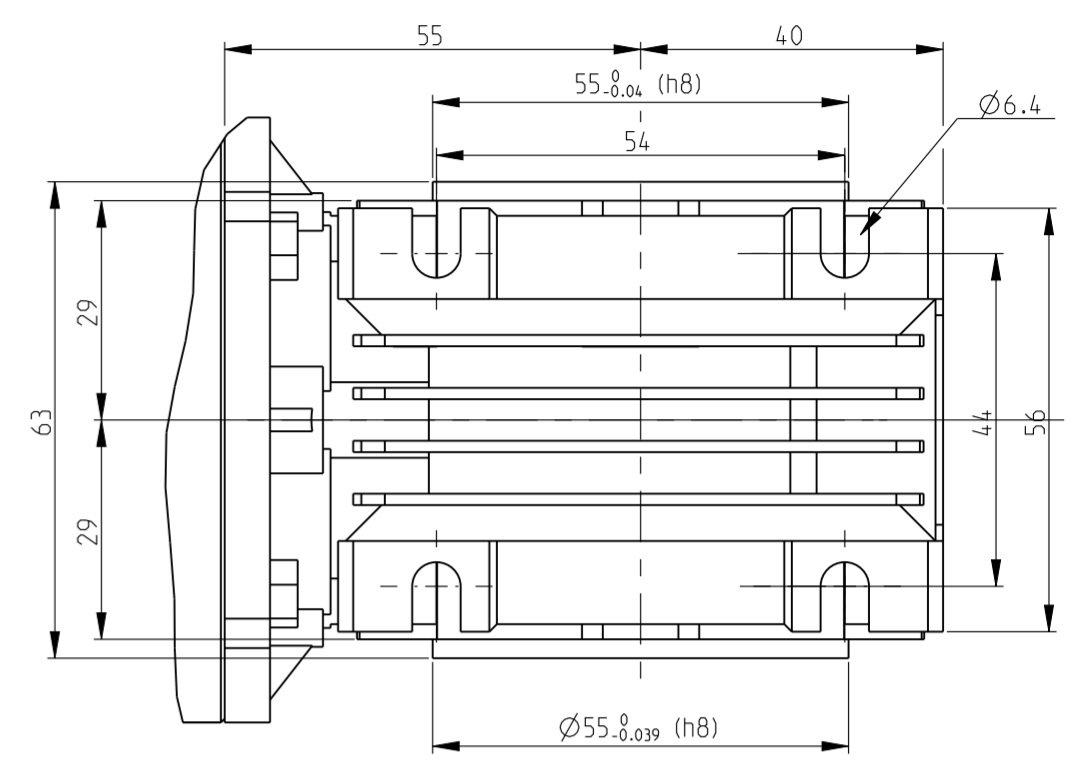
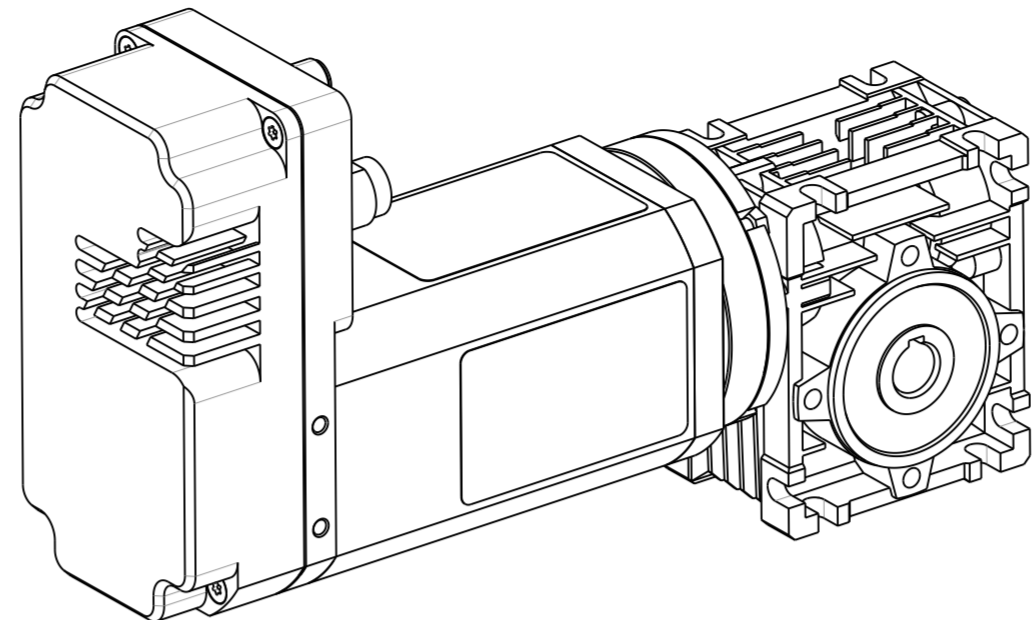
Output ballast



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 1/2

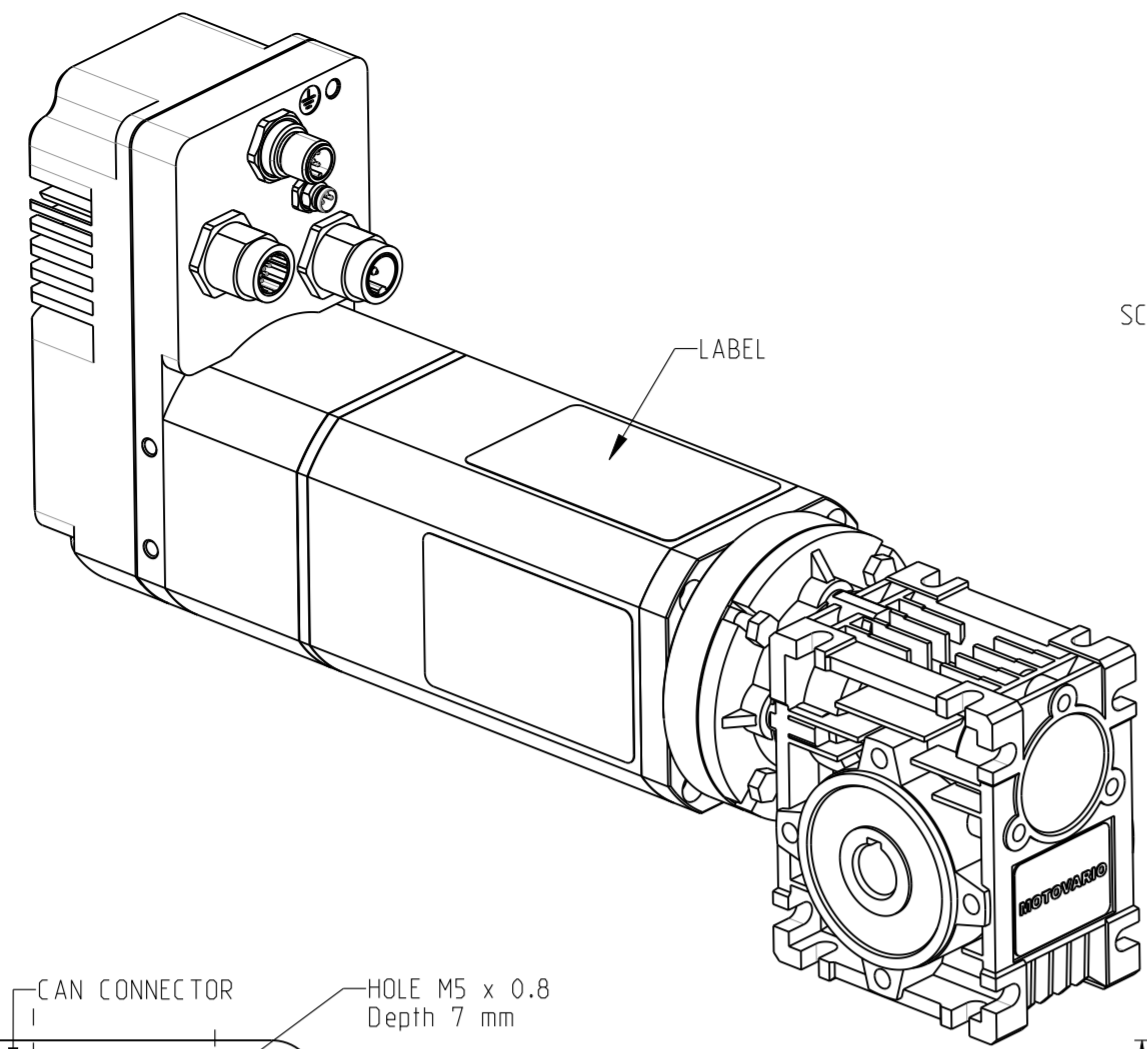


SQ75-3 80372 L: 286.9 MAX

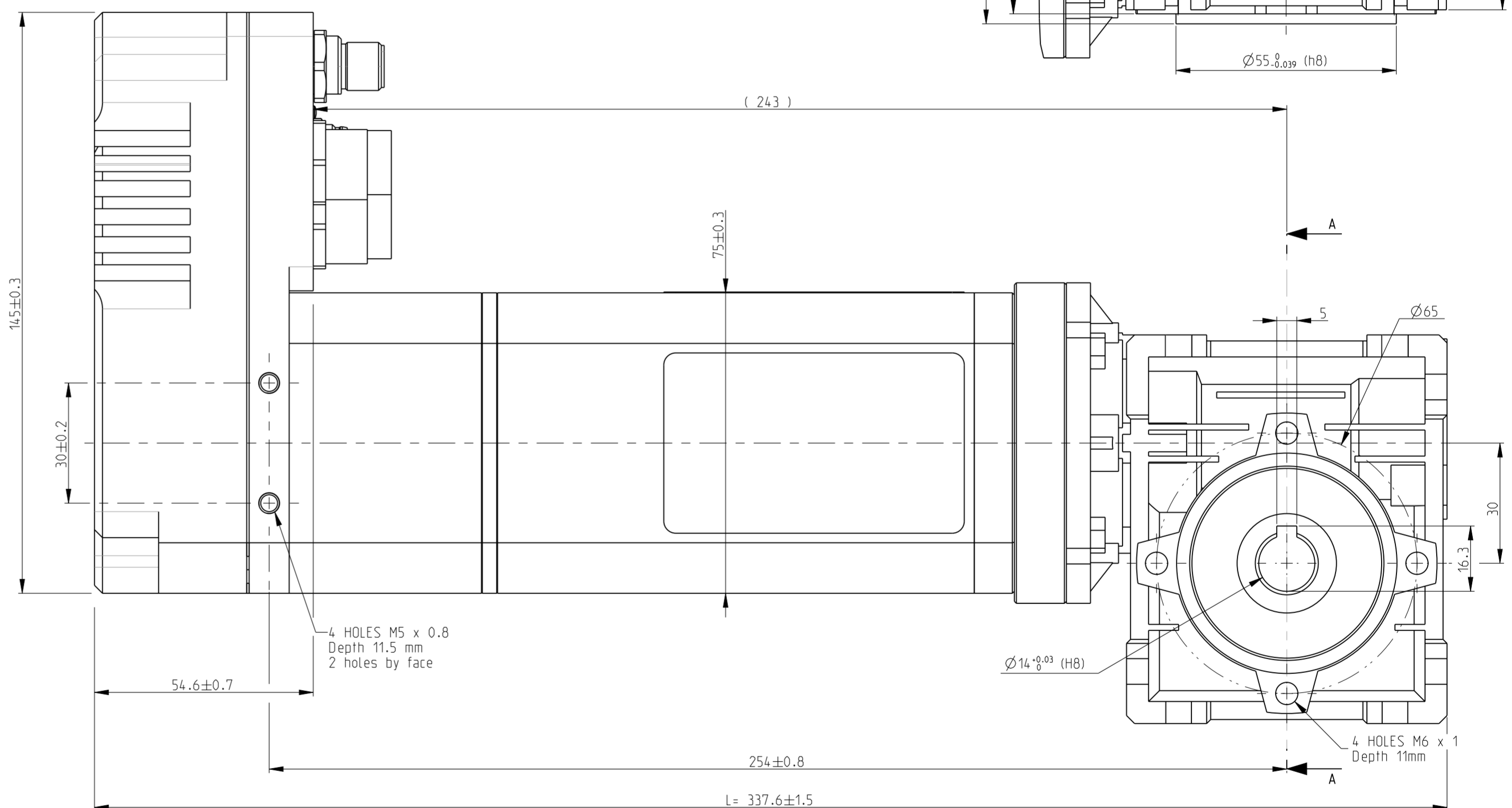
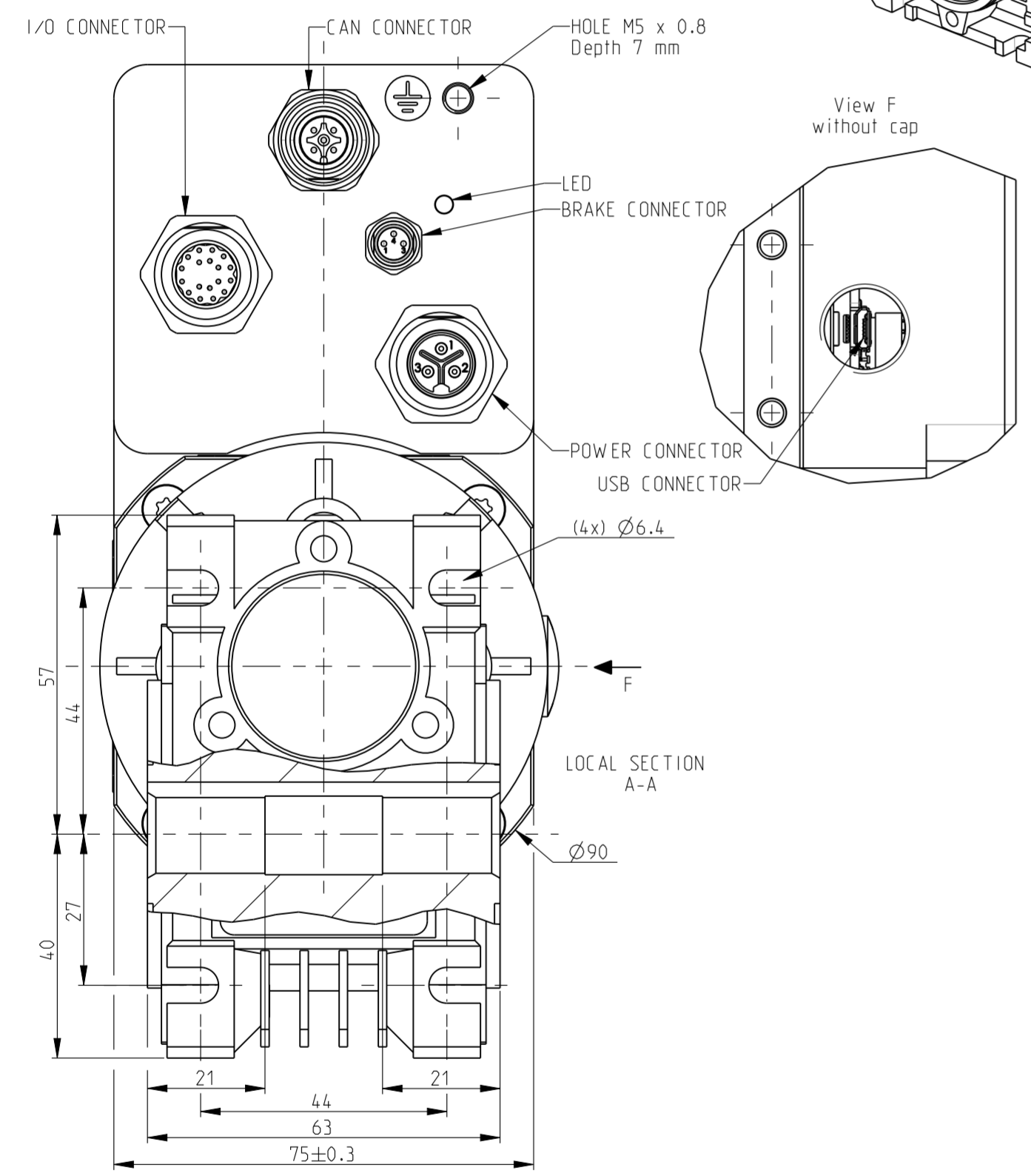
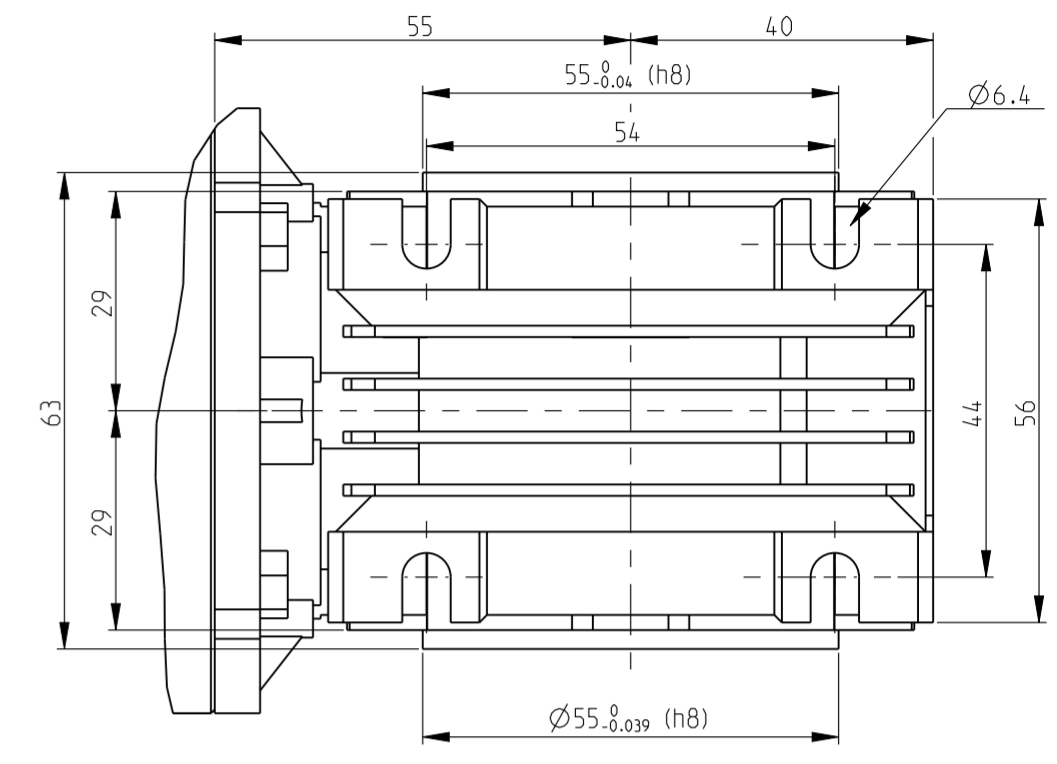
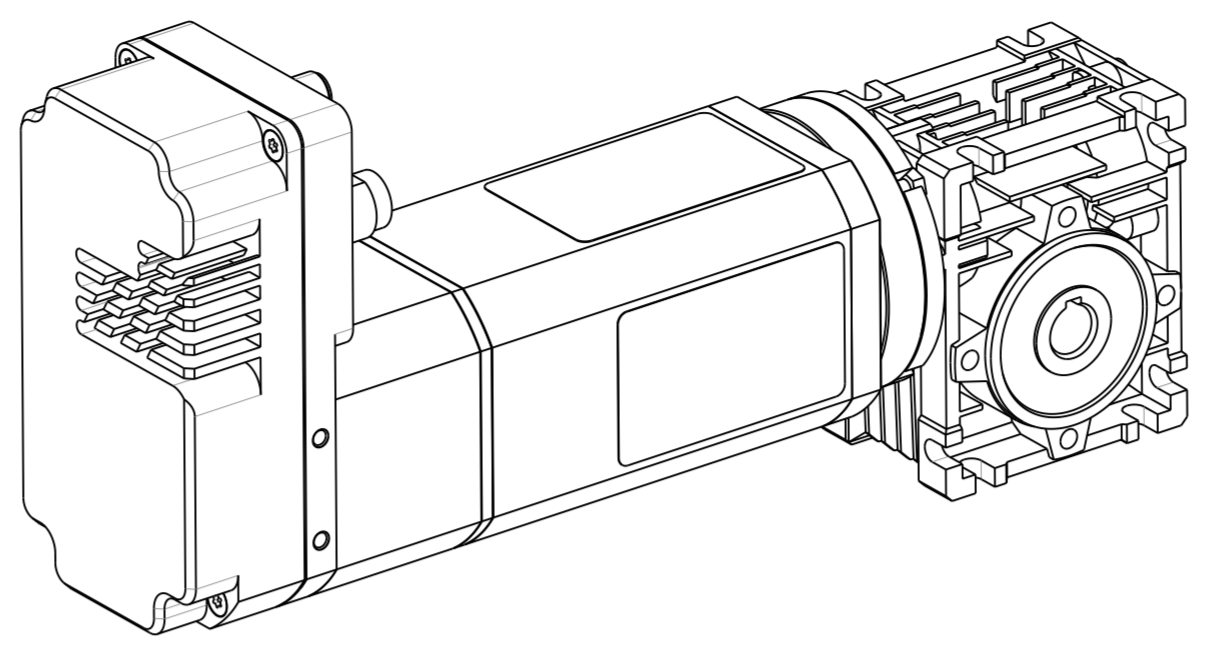
GEAR MOTOR AVAILABLE						
80 372 001	80 372 002	80 372 003	80 372 004	80 372 005	80 372 006	
RIGHT ANGLE GEARBOX CORRESPONDING						
RIGHT ANGLE GEARBOX AVAILABLE						

POIDS	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg
JEU ANGULAIRE MAXI	0.5°	0.5°	0.5°	0.5°	0.5°	0.5°
DIAM_ARBRE_MOTEUR	11	11	11	11	11	11
PAM	56B14	56B14	56B14	56B14	56B14	56B14
REFERENCE FOURNISSEUR	NMRV03000511080	NMRV03000711080	NMRV03001011080	NMRV03001511080	NMRV03002011080	NMRV03003011080
RAPPORT	5	7.5	10	15	20	30
COULEUR	RAL 5010	RAL 5010	RAL 5010	RAL 5010	RAL 5010	RAL 5010
Reference	79298301	79298302	79298303	79298304	79298305	79298306

80370 V1 + RAD20
 **CROUZET**



SCALE 1/2



SQ75-3 803721 L: 3391 MAX

GEAR MOTOR AVAILABLE						
	80 372 101	80 372 102	80 372 103	80 372 104	80 372 105	80 372 106
	RIGHT ANGLE GEARBOX CORRESPONDING					
	RIGHT ANGLE GEARBOX AVAILABLE					
POIDS	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg	1.2 Kg
JEU ANGULAIRE MAXI	0.5°	0.5°	0.5°	0.5°	0.5°	0.5°
DIAM_ARBRE_MOTEUR	11	11	11	11	11	11
PAM	56B14	56B14	56B14	56B14	56B14	56B14
REFERENCE FOURNISSEUR	NMRV03000511080	NMRV03000711080	NMRV03001011080	NMRV03001511080	NMRV03002011080	NMRV03003011080
RAPPORT	5	7.5	10	15	20	30
COULEUR	RAL 5010	RAL 5010	RAL 5010	RAL 5010	RAL 5010	RAL 5010
Reference	79298301	79298302	79298303	79298304	79298305	79298306

80370 V1 + RAD20 + BRAKE

