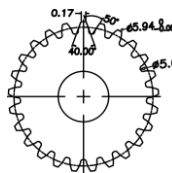
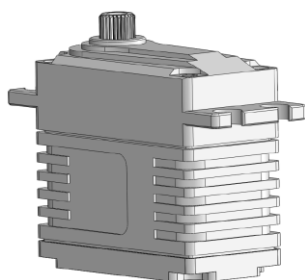
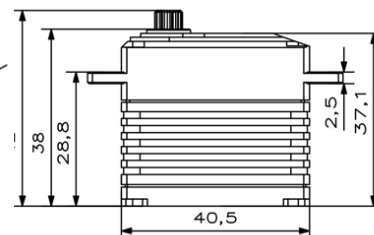
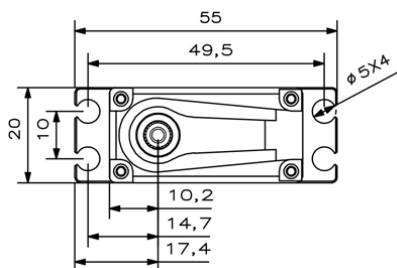


A20-3813-2 Technical Specification



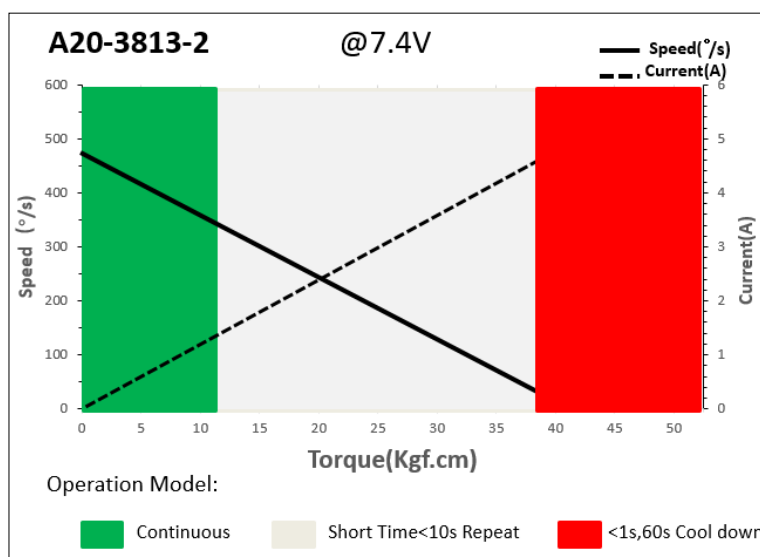
25T 6mm Output
Shaft Spline



1. Operating Data

| | |
|----------------------|--------------------|
| Rated Voltage | DC7.4V |
| Voltage Range | DC6.0V-8.4V |
| Torque | 30Kgf.cm@6.0V |
| | 38Kgf.cm@7.4V |
| | 43Kgf.cm@8.4V |
| Speed | 0.18sec/60°@6.0V |
| | 0.13sec/60°@7.4V |
| | 0.12sec/60°@8.4V |
| Working Frequency | 1520us/333Hz |
| Default Travel Angle | ± 50°=100°Total |
| Temperature Range | -20°C.....+65°C |
| Case Material | Aluminum Alloy |
| Motor Type | Brushless DC Motor |
| Gear Set Material | Hardened Steel |
| Position Sensor | potentiometer |
| Ball Bearing | 2 BB |
| Case Dimensions | 40.5*20*38mm±0.2mm |
| Weight | 72g±10% |

2. Performance



3. Command signal

3.1. RS485 / RS422 Command Interface

| | |
|------------------------------------|----------------------------------|
| Baud-Rate | 115200 ±1.5% bits/s |
| Protocol (Documentation available) | 10 Byte (incl. 1 byte Check Sum) |

3.2 RS485 / RS422 Protocol Specifications

| | |
|---------------------|------|
| Number of Data Bits | 8 |
| Number of Stop Bits | 1 |
| Parity | None |

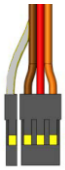
3.3. Command / Response Frame

| Byte # | Description | Byte # | Description | Byte # | Description |
|--------|------------------|--------|-------------|--------|---------------|
| 1 | Frame Head(0xFE) | 5 | Data | 9 | Check Sum |
| 2 | Version(0xCA) | 6 | Data | 10 | (0A)Frame End |
| 3 | Address | 7 | Data | | |
| 4 | Command code | 8 | Data | | |

3.4. Feedback Signal

Integrated in the Bus protocol a Feedback Value, including the Angle position, Temperature, current value. Value read by sending request command. Provide the details of the bus in the document.

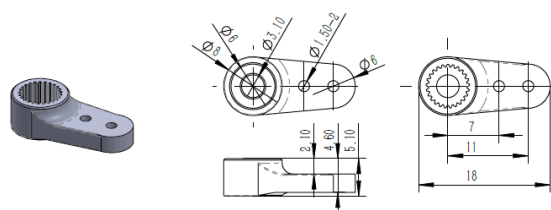
4. Electrical Connection Options

|  | Pin Assignment (RS485_BUS) | | | |
|---|----------------------------|--------|----------|------------------------------|
| | 1 | Yellow | RS485A | RS485A |
| | 2 | Red | DC+ | Supply Voltage |
| | 3 | Brown | DC-(GND) | Supply Ground, Signal Ground |
| | 4 | white | RS485B | RS485B |

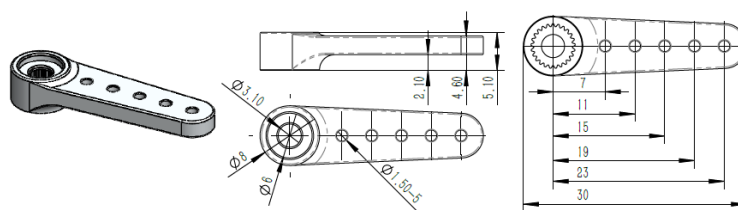
5. Accessories (Options)

| Item | Item-No. |
|----------------------------------|----------|
| Aluminum Servo Arm (Single side) | 0625.11 |
| Aluminum Servo Arm (Single side) | 0625.23 |
| Aluminum Servo Arm (Single side) | 0625.40 |
| Aluminum Servo Arm (Double side) | 0625.60 |

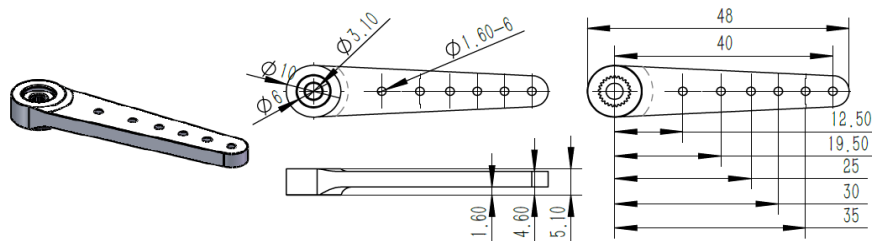
Item No.: 0625.11



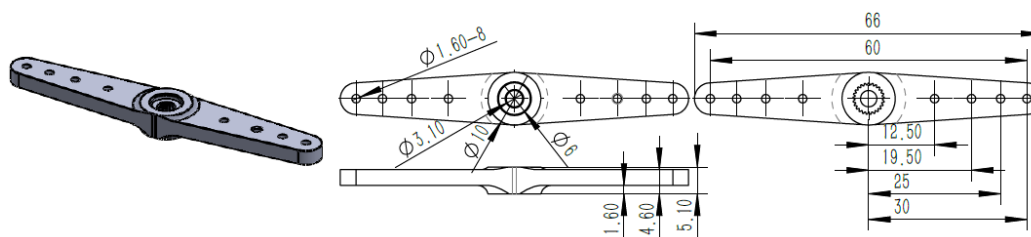
Item No.: 0625.23



Item No.: 0625.40



Item No.: 0625.60



6. Item Number System

| | | | |
|--------------------|---------------------------------|----|-----------------------|
| A20 | 3813 | -2 | Control: 2: RS485 Bus |
| Servo Class | Performance | | |
| 20mm Class | 38: Stalling Torque (3.8N.m) | | |
| | 13: No-load Speed (0.13Sec/60°) | | |