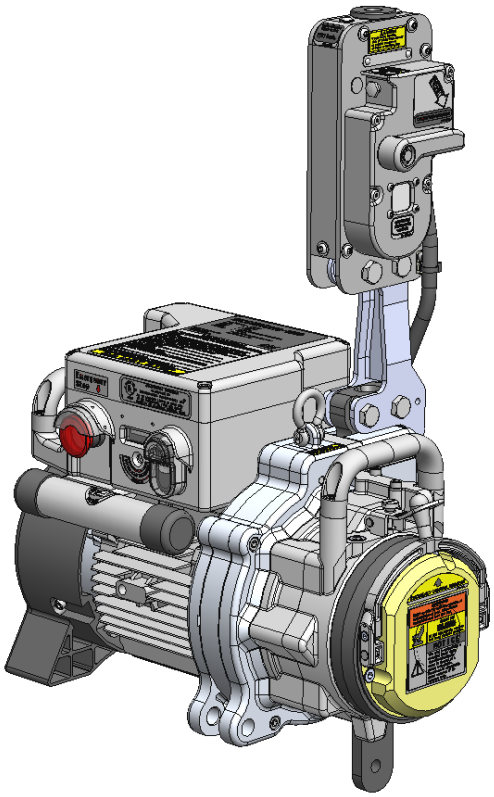
BISOMAC210

Electric Traction Hoist

Operator's Manual

Model: BISOMAC210-1000L



⚠ WARNING

Read manual before operating this Hoist. Failure to follow the safety precautions and instructions in this manual could result in serious injury, death or damage to the Hoist.

NIHON BISOH CO., LTD.

2. SPECIFICATIONS

2.1 BISOMAC210 TRACTION HOIST

Model	**BISOMAC210-1000L**
Rated Load	1000 lbs (450 kg)
Rated Speed	35 ft/min (10.6 m/min)
Noise	64 dB
Protection Construction	IP54
Hoist Self Weight	108 lbs (49 kg)
Weight including safety devices	123.5 lbs (56 kg)
Dimension w/safety devices	29.5 in. (750 mm high) x 12 in. (306 mm width) x 17.9 in. (455 mm depth)
Voltage	1-phase 208 V (60 Hz)
Ampere in Rated load	**8 A**
Motor Power	**0.9 KW (4P)**
Wire Rope Dia	dia 5/16 inch or dia 8 mm
Control Method	Independent Control Method
Safety Features	Electromagnetic Brake
	Controlled Descent Device
	Emergency Stop – Cut all power to the electric motor
MAINTENACNE SPECIFICATIONS	
Maintain every 100 hour of operation hour or no longer than every year. See Maintenance Manual for instructions on maintaining. (this differ from condition of use at work sites, refer Section 4 Work Environment)	

OVERSPEED DETECTION DEVICE

Rated Load:	1000 lbs (450 kg)
Activation Speed:	98.4 ft/min (30 m/min)
Dimension:	10 in. (253 mm high) x 4.7 in. (120 mm width) x 4 in. (103 mm depth)
Weight:	11 lbs (5 kg)
Control Feature:	NO descending while this device is activated.
Use Voltage	208 V

STIRRUP ADAPTER

Rated Load:	1000 lbs (450 kg)
Dimension:	9.72 in. (247 mm high) x 3.58 in. (91 mm width) x 1.96 in. (50 mm depth)
Weight:	2 lbs (1 kg)
Attachment:	Guide Roller for wire rope

2.2 WIRE ROPE

⚠ WARNING

BISOMAC210 operation requires the use of wire rope described below. Using any other wire rope could cause the platform to fall or tilt, possibly resulting in falls and serious injury or death.

BISOMAC210-1000

	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5
Construction	5x26	4x39	4x40	6x19IWRC	4x26
Diameter	8.4 mm	8.0 mm	8.0 mm	8.2 mm	8.3 mm
Min. Breaking Load (actual)	51.5 kN (5,253 kg)	39.2 kN (3,998 kg)	43.0 kN (4,386 kg)	40.5 kN (4,131 kg)	45.0 kN (4,590 kg)
Treatment	Galvanized	Galvanized	Galvanized	Galvanized	Galvanized
Caution	**ONLY USE "TYPE 1" and "TYPE 5" in Canada**				

2. 3 Power Cable

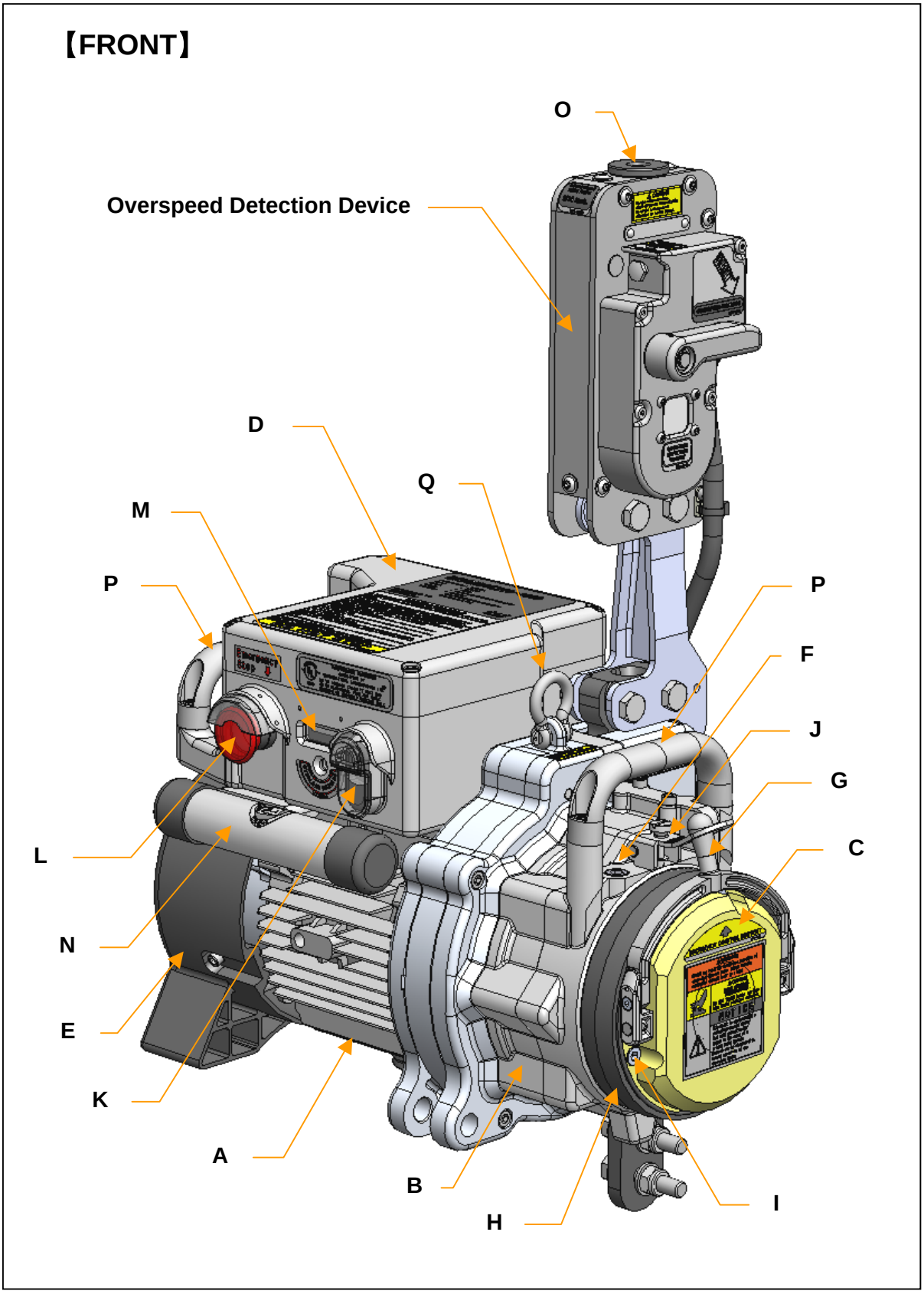
Recommended Type	SOOW
Core and Size	3 cores 10 AWG
Rated Voltage	600 V
Max Length	500 ft (152 m) per platform

NOTE

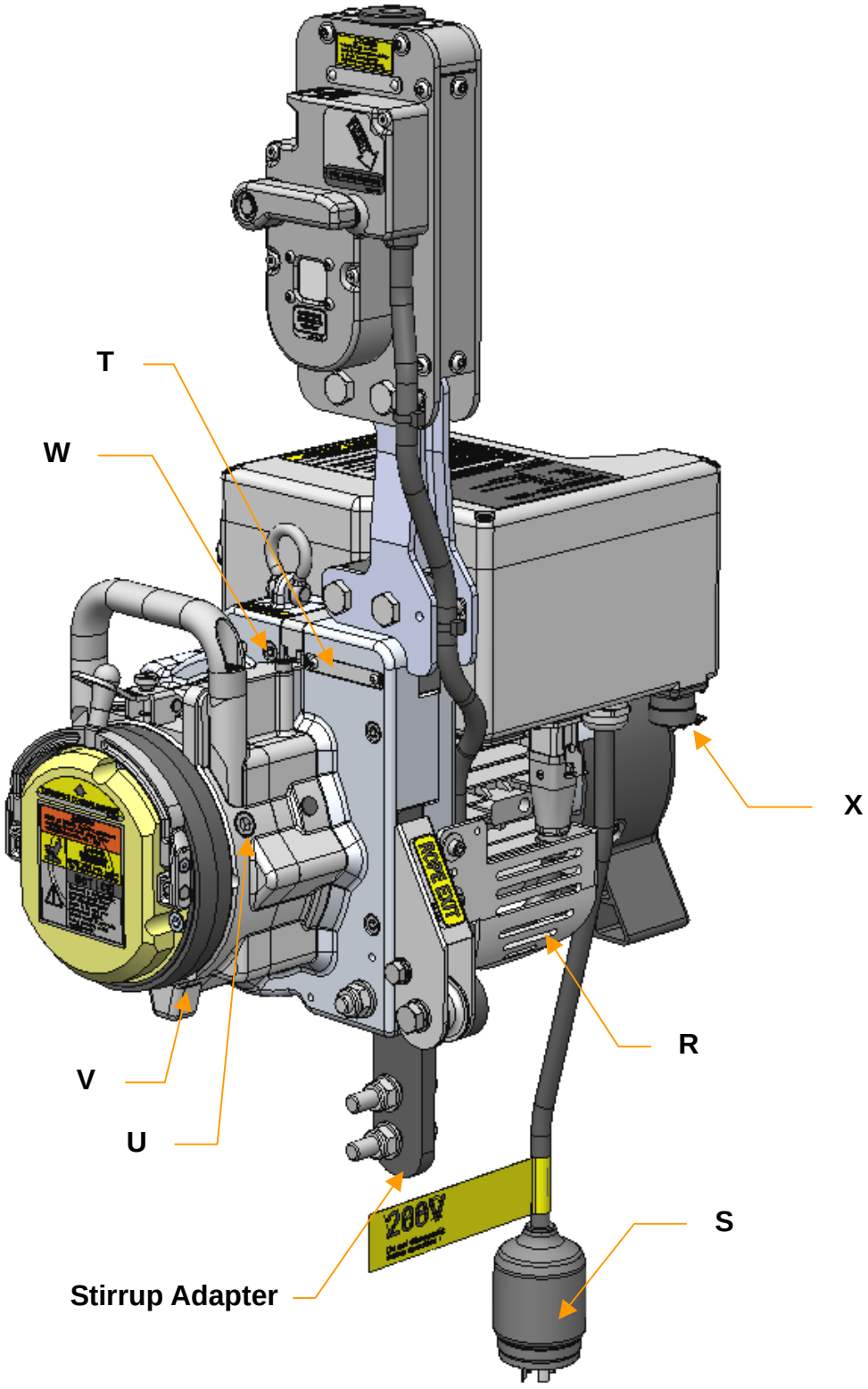
Due to the various possible suspended platform loading situations and electric voltage sources, it is not possible to specify the maximum power cable length exactly.

3. FUNCTION AND DESCRIPTION OF EACH COMPONENT

3.1 BISOMAC210 TRACTION HOIST



【REAR】



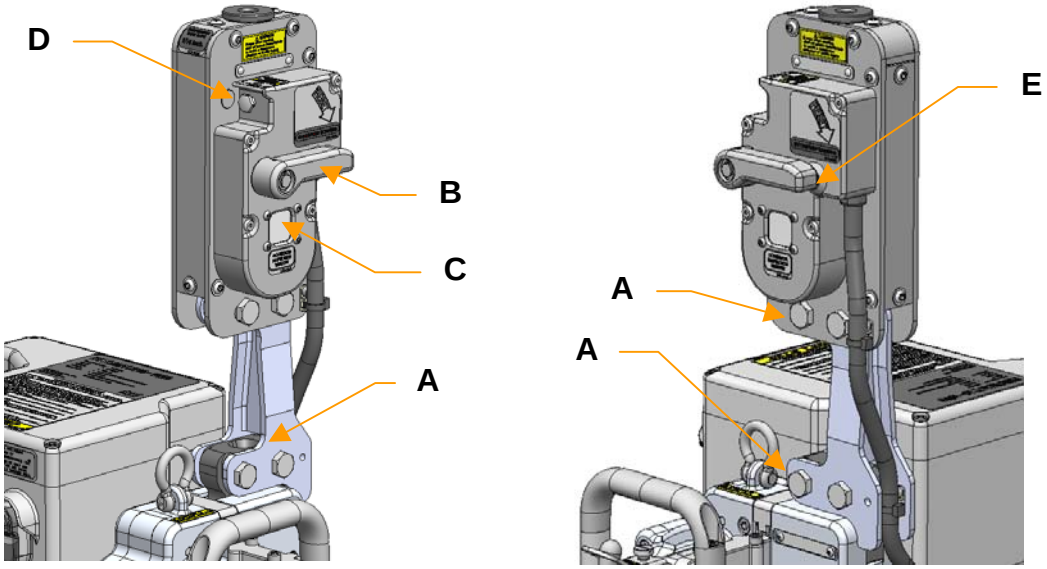
	FUNCTION	DESCRIPTION
A	Electric Motor	BISOMAC210 is powered by electricity through gear drive.
B	Gear Box	Gear Box of BISOMAC210.
C	Electromagnetic Brake	Electromagnetic Brake is released when the Operation Button is pressed. The BISOMAC210 stops when the Operation Button is released or the main power is disconnected.
D	Control Box	Electric components are assembled to control the BISOMAC210 lifting.
E	Fan Cover	Protects operator from being struck by the fan and prevents damage to the fan and motor.
F	Fluid Refill Hole	Use when replacement of oil.
G	Emergency Descent Lever	This allows the platform to be lowered at regular speed when electrical power to the BISOMAC210 is lost.
H	Protection Cover	Does not allow water and dirt to get into Electromagnetic Brake.
I	Water-proof Cap Bolt	Cap bolt with sealing to avoid water getting into the Electromagnetic Brake.
J	Lever Stopper	Prevents misoperation & malfunction of Emergency Descent Lever.
K	Power Indication & Operation Button	The Power Indication is lit when connecting power. Controls the vertical motion of the BISOMAC210. Operation Button disengages when released.
L	Emergency Stop Button with Indicator	This Button is for emergency stop. Press this Button in case the BISOMAC210 does not stop even releasing the Operation Button. The Indication is lit when pressing this Button and cut all power to the electric motor.
M	Hour Meter	Shows the BISOMAC210's integrated operating hours.
N	Operator’s Manual Tube	Install Operator’s Manual.
O	Suspension Wire Rope Inlet	For inserting main suspension wire rope.
P	Carrying Grips	Carrying Grips for the BISOMAC210.
Q	Shackle for Transportation	Only use at transportation of the BISOMAC210. Max lifting load is 165 lbs (75 kg).
R	Cable Guard	Protection Metal for Cable and Connector.
S	AC Power Plug	This 3-prong power plug and cord are for connecting the BISOMAC210 to the worksite power supply.
T	Serial Number	BISOMAC210 Serial Number.
U	Fluid Drain Hole	Use when replacing of oil.
V	Oil Level Gage	Use when replacing of oil.
W	Guard Plate for Brake Leads	Protect Brake Leads from damages.
X	Inlet for Pendant Switch	Allow using Up/Down remote control pendant switch. When not using the pendant switch, keep the receptacle closed by twist-locking the attached waterproof cap. Pendant switch is optional. Please contact local authorized the BISOMAC210 distributor.

3.2 Overspeed Detection Device

The Overspeed Detection Device engages wire rope when platform suddenly falls. Once Overspeed Detection Device activates, the platform would not descend due to electric interlock.

⚠ WARNING

When platform suddenly falls and the Overspeed Detection Device activates, only trained and authorized personnel are allowed to reset this device. Contact the local authorized BISOMAC210 distributor and wait for rescue of the operators on the platform. Improperly resetting the device may result in the platform falling and titling, allowing persons or things to fall and possibly resulting in serious injury, death or damage.



	FUNCTION	DESCRIPTION
A	Extension Bracket for Overspeed Detection Device & Special Bolt	Use to attach Overspeed Detection Device and Extension Bracket to BISOMAC210 (Bolt Q'ty: 4 pieces)
B	Reset Lever	Use for resetting the Overspeed Detection Device. When huge power applies to Device such as shock load, attempt to reset forcibly, the Safety Pin in the Lever will damage and will not allow resetting the Lever.
C	Governor Inspection Window	Confirm Rotating of Governor
D	Manual Trip Button	This Trip Button is for manual activation of the Overspeed Detection Device.
E	Overspeed Indicator	In case of activation of the Overspeed Detection Device, the Indicator is lit when pressing "Down" Button.