CLAIMS:

[Claim 1]

A traction machine for elevator, comprising a housing, a brake drum rotatably supported on the housing, a motor stator arranged in an annulus-shaped recess defined on an opposed portion of the housing to the brake drum, a motor rotator arranged in a space portion in the annulus-shaped recess in a position opposed to the motor stator and fixed to the brake drum, a sheave, which rotates integrally with the brake drum, and an electromagnetic braking device provided on the housing to brake the brake drum, and

wherein at least a pair of communicating holes communicated to the space portion in the annulus-shaped recess is formed on the housing, and an air flow forming projection is provided to rotate in the space portion to form a cooling air flow passing through the communicating holes.

[Claim 2]

The traction machine for elevator, according to claim 1, wherein the air flow forming projection is provided outside the motor rotator and the communicating holes are formed on the housing positioned outside the air flow forming projection.

[Claim 3]

The traction machine for elevator, according to claim 1, wherein the air flow forming projection is provided on the brake drum.

[Claim 4]

The traction machine for elevator, according to claim 1, wherein one of the pair of communicating holes is provided in an outside position, which is larger in a distance from a central axis of rotation of the brake drum than the air flow forming projection and the other of the pair of communicating holes is provided in an inside position, which is smaller in a distance from the central axis of rotation of the brake drum than the air flow forming projection.

CLAIMS

1. A traction machine for elevator, comprising a housing, a brake drum rotatably supported on the housing, a motor stator arranged in an annulus-shaped recess defined on an opposed portion of the housing to the brake drum, a motor rotator arranged in a space portion in the annulus-shaped recess in a position opposed to the motor stator and fixed to the brake drum, a sheave, which rotates integrally with the brake drum, and an electromagnetic braking device provided on the housing to brake the brake drum,

wherein at least a pair of communicating holes communicated to the space portion in the annulus-shaped recess is formed on the housing, and an air flow forming projection is provided to rotate in the space portion to form a cooling air flow as well, and

wherein the air suctioned into the space portion from one of the pair of communicating holes is rotated circumferentially to the housing, and the air is discharged from the other of the pair of communicating holes.

2. The traction machine for elevator, according to claim 1, wherein the air flow forming projection is provided outside the motor rotator and communicating holes at the air discharge side are formed on the housing positioned outside the air flow forming projection.

3. The traction machine for elevator, according to claim 1, wherein the air flow forming projection is provided on the brake drum.

4. The traction machine for elevator, according to claim 1, wherein one of the pair of communicating holes is provided in an outside position, which is larger in a distance from a central axis of rotation of the brake drum than the air flow forming projection and the other of the pair of communicating holes is provided in an inside position, which is smaller in a distance from the central axis of rotation of the brake drum than the air flow forming projection.