

Application

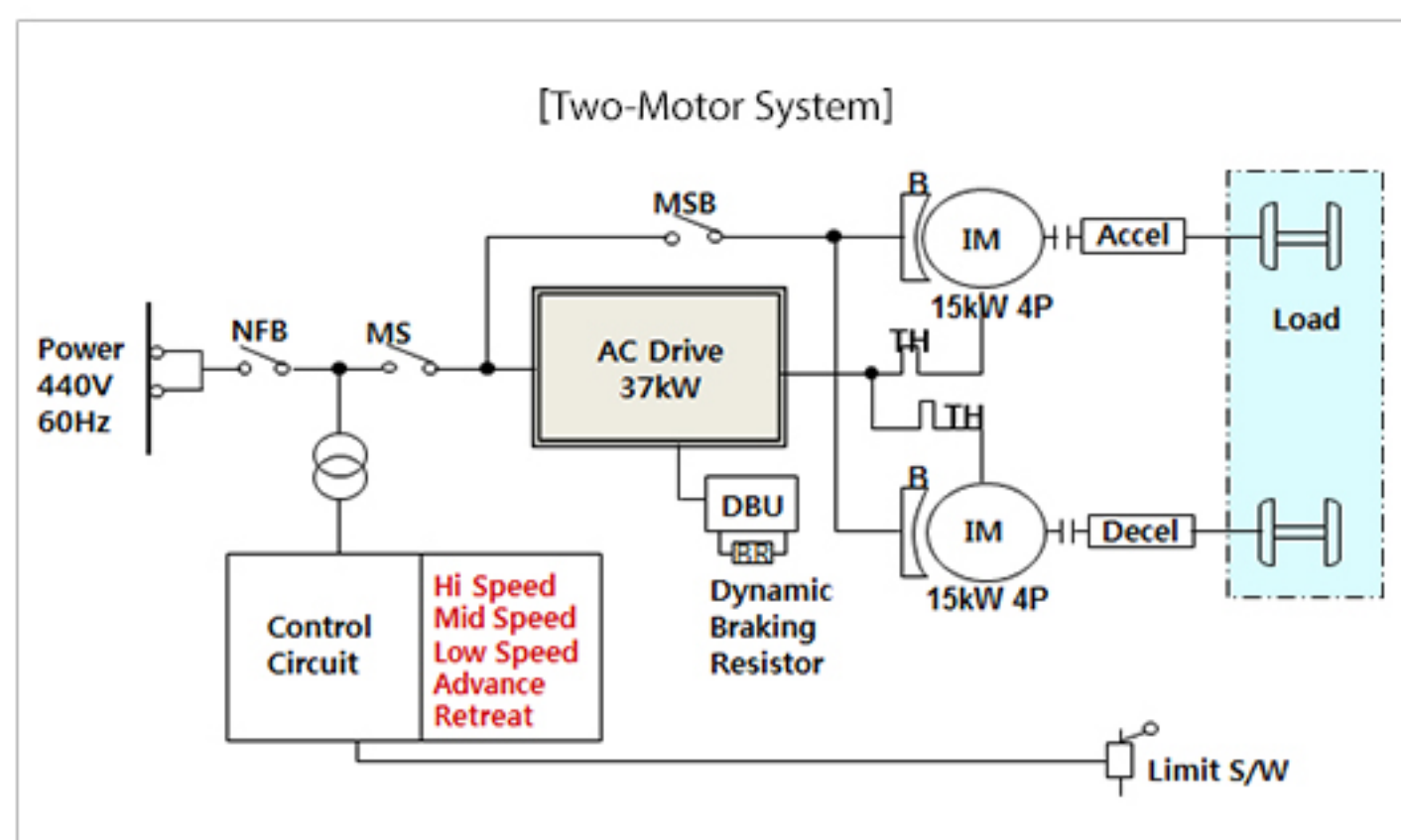
Pallet Truck Application

1. Pallet Truck

- Pallet truck is used to palletize load for stacking or moving to a new position.
- Increase of speed and carrying capacity are needed to increase productivity.
- The motor that has constant output-characteristics in the high-speed region is used.
- Carrying capacity can be upgraded without changing of motor-capacity.

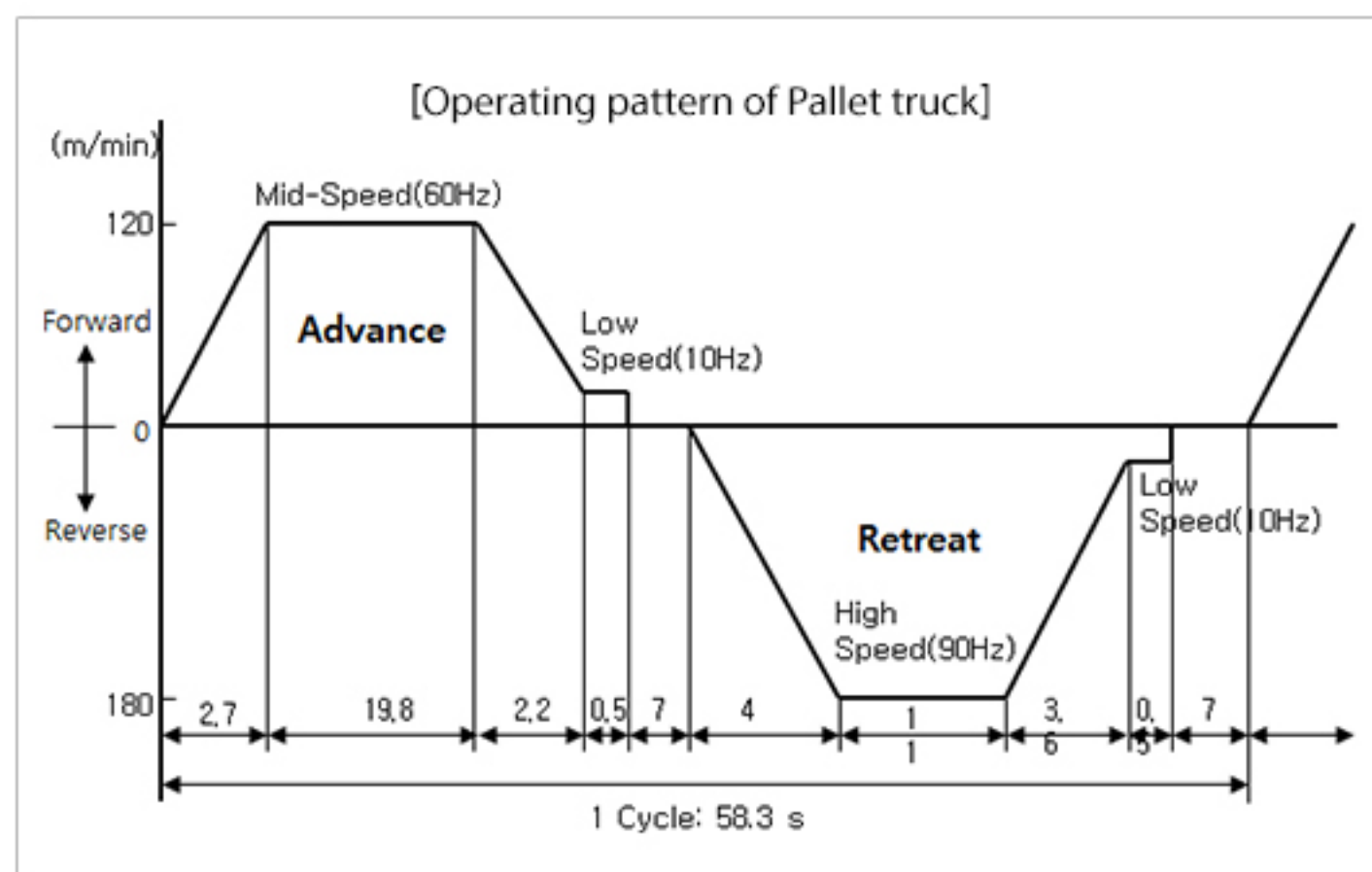
2. System Composition

- The capacity of AC drive must be greater than that of two motors.
- Two motors are always running at an equal speed.
- There is not a big load unbalance problem and load torque is optimally distributed between two motors.
- While the motor is decelerating, Regenerative energy are consumed by DBR.
- In case of emergency, the motor stops immediately by the electronic brakes.
- Cage type induction motor is suitable for dusty and vibration circumstances.



3. Advantages

- A motor speed can be increased by changing hertz through AC drive.
- High-speed operation can be possible without changing the size of driving part.
- If the load carrying and moving at high speed, collapsing can be prevented.
- If there is no load on the truck, operating speed can be increased.
- Cycle-time can be reduced by optimizing motor speed.



4. Applied Product

- iS7 37kW AC Drive

5. Caution

- While there are loads on the pallet truck, The motor should be driven under the middle-speed (under 60Hz). In the case of opposition, It should be driven above 60Hz.
- Only optimization of accelerate and decelerate time can prevent slips of wheel and collapsing of loads.
- Smooth start and stop can be realized by applying S-curve function.
- Vibration isolation measures are required to protect motors from vibration.
- Totally enclosed outdoor motors are recommended: Easy maintenance and installation without restrictions in place.
- Use cage type induction motor to avoid trouble from dust or vibration.