

IMO DP Classification

Class requirements

Based on IMO - International Maritime Organization publication 645 the Classification Societies have issued rules for dynamically positioned ships described as Class 1, Class 2 and Class 3.

- **Equipment Class 1** has no redundancy. Loss of position may occur in the event of a single fault
- **Equipment Class 2** has redundancy so that no single fault in an active system will cause the system to fail. Loss of position should not occur from a single fault of an active component or system such as generators, thruster, switchboards, remote controlled valves etc. But may occur after failure of a static component such as cables, pipes, manual valves etc.
- **Equipment Class 3** which also has to withstand fire or flood in any one compartment without the system failing. Loss of position should not occur from any single failure including a completely burnt fire sub division or flooded watertight compartment



Dynamic positioning system - illustrating auto position mode

Classification system overview

The following table gives an overview of the IMO dynamic positioning system classification system and the roughly corresponding dynamic positioning system class notations, individual variations exists.

| Description | IMO | Corresponding class notations | | |
|---|----------|-------------------------------|----------|---------------------|
| | DP Class | ABS | LRS | DNV |
| Manual position control and automatic heading control under specified maximum environmental conditions. | - | DPS-0 | DP (CM) | DNV-T |
| Automatic and manual position and heading control under specified maximum environmental conditions. | Class 1 | DPS-1 | DP (AM) | DNV-AUT DNV-AUTS |
| Automatic and manual position and heading control under specified maximum environmental conditions, during and following any single fault excluding loss of a compartment. (Two independent computer systems). | Class 2 | DPS-2 | DP (AA) | DNV-AUTR |
| Automatic and manual position and heading control under specified maximum environmental conditions, during and following any single fault including loss of a compartment due to fire or flood. (At least two independent computer systems with a separate back-up system separated by A60 class division). | Class 3 | DPS-3 | DP (AAA) | DNV-AUTRO |