1. **Module reference**

|  |  |
| --- | --- |
| **Form’s number:** | Click here to enter text |
| **Date:** | Click here to enter text |
| **Type of machine:** | Click here to enter text |
| **Max Temperature environment:** | Click here to enter text |

1. **Gear’s family identification**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Famiglia** | **HEAVY DUTY** |  |  |  |  |
|  |  |  |  |  |
| **Size** |  |  |  |  |  |
| **Ratio** |  |  |  |  |  |
| **Products or versions not certified ATEX** |  | * Versioni con motore compatto: **Non possono essere certificati ATEX** * Versioni con freno idraulico tipo Z0-Z1-Z2-Z3: **Non possono essere certificati ATEX** | | | |

1. **Engine applied**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Power - [Kw)]** | **N° [rpm]**  Figura 12 | **Power frequency [Hz]** |
|  |  | 2 | 50 Hz |
|  |  |  | **-** |

1. **Limitation Mark**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4.1 - GAS – Limitation Mark | | | | | | | | | | |
| **Type mark** | **Limitation**  **Mark** | | **Symbol Mark** | **Group** | **Category** | **Symbol proctection** | **Group dangerous material** | **Temperature** | **Protection level**  **EPL** | **Use limitation** |
|  | **Accessory** | **LP-LC-LF** |  | **II** | 3G | **Exh** | IIC | **T4** | **Gc** | x |
|  | **T5** |
|  | **Accessory Option** | **Ventilation C:\Users\enrico.baroni.STM\AppData\Local\Microsoft\Windows\INetCache\Content.Word\images.jpg System**  **And/Or Painting Type**  TYP3\* |  | **II** | 2G | **Exh** | IIB | **T4** | **Gb** | - |
|  | **T5** |
|  |  | **II** | 3G | **T4** | **Gc** | - |
|  | **T5** |
| \* **The painting cycles shown in the catalog and different from these indicated, they follows rules of standard mark - point 5.0 (TYP3C & TYP4C cycles are available on request)** | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **4.2- DUST – Limitation Mark** | | | | | | | | | | |
| **Type mark** | **Limitation**  **Mark** | | **Symbol Mark** | **Group** | **Category** | **Symbol proctection** | **Group dangerous material** | **Temperature** | **Protection level**  **EPL** | **Use limitation** |
|  | **Accessory** | **LP-LC-LF** |  | **II** | 3D | **Exh** | IIIC | **135°C** | **Dc** | x |
|  | **100°C** |
|  | **Accessory** | **Ventilation C:\Users\enrico.baroni.STM\AppData\Local\Microsoft\Windows\INetCache\Content.Word\images.jpg System** |  | **II** | 2D | **Exh** | IIIB | **135°C** | **Db** | x |
|  | **100°C** |
|  |  | **II** | 3D | **Exh** | IIIB | **135°C** | **Dc** |
|  | **100°C** |

1. **STANDARD Mark**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GAS | | | | | | | | | |
| **Type mark** |  | **Symbol Mark** | **Group** | **Category** | **Symbol proctection** | **Group dangerous material** | **Temperature** | **Protection level**  **EPL** | **Use limitation** |
|  |  |  | **II** | 2G | **Exh** | IIC\* | **T4** | **Gb** | - |
|  |  | **T5** |
|  |  | 3G | **T4** | **Gc** |
|  |  | **T5** |
| **Option** | **Painting Type**\* TYP3C | | | | | | | | |
| \* **The painting cycles shown in the catalog and different from these indicated, is not necessary to point them as they are conform to these markings** | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DUST** | | | | | | | | | |
| **Type mark** |  | **Symbol Mark** | **Group** | **Category** | **Symbol proctection** | **Group dangerous material** | **Temperature** | **Protection level**  **EPL** | **Use limitation** |
|  |  |  | **II** | 2D | **Exh** | IIIC | **135°C** | **Db** | - |
|  |  | **100°C** |
|  |  | 3D | **135°C** | **Dc** |
|  |  | **100°C** |

**Date: ................ Signature: ……………….**

GENERAL-INFORMATION

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Symbol**  **Mark** | **Group** | **Category** | | **Symbol proctection** | **Group dangerous material** | | **Temperature\*** | **Protection level**  **EPL** | | **Use limitation** |
|  | **II**  Surface industries | **2G** | **Explosive atmosphere formed by gas zone 1, also inside** | **Exh**  Ex - Protection mode for constructive safety "c “ | **IIA** | **All gases / fluids except (Hydrogen - Acetylene - Carbon Sulphide)** | **T 1 / 450°C** | **Gb** | Agreement with the Standards EN 80079-36.16- "GAS - 2G" | **X**  **With limitations of use** |
| **2D** | *Explosive atmosphere formed by dusts* ***zone 21*** | **IIB** | **All gases / fluids except (Hydrogen - Acetylene - Carbon Sulphide)** | **T 2 / 300°C** | **Db** | Agreement with the Standards EN 80079-36.16- "– “DUST – 2D |
| **3G** | **Explosive atmosphere formed by gas zone 2, also inside** | **IIC** | **All gases / fluids included (Hydrogen - Acetylene - Carbon Sulphide)** | **T 3 / 200°C** | **Gc** | Agreement with the Standards EN 80079-36.16- "GAS – 3G” |
| **3D** | *Explosive atmosphere formed by dusts*  ***zona 22*** | **IIIA** | **Particulate fuel** | **T 4 / 135°C** | **Dc** | **Agreement with the Standards EN 80079-36.16- "DUST-3D** |
|  | | **IIIB** | **Non-conductive dust** | **T 5 / 100°C** |  | |
| **IIIC** | Conductive dust |  |
| \* Group’s products II2D - II3D are defined by the maximum temperature of effective surface.  In the case of Temperature Class T5 or max surface temperature of 120 ° C (for group IID, IIG) it is necessary to verify the maximum power applicable to the gearbox by consulting the internal regulations NORM\_0198.  In general, is necessary to verify the power reported in the catalog expected for the individual ratios with overall service factor of the application equal to 1 and considerations about thermal limit**.**  The maximum temperature of surface is determined under normal installation and environmental conditions (-20 ° C and + 40 ° C) and without dust deposits on the devices. Any deviation from these reference conditions can significantly influence the disposal heat and therefore the temperature. | | | | | | | | | | |

|  |  |  |
| --- | --- | --- |
| **N°** | **Type mark** | **Designation** |
| **1** | **Gb-4** | = CE Ex - II 2G Exh IIC T4 Gb |
| **2** | **Gb-5** | = CE Ex - II 2G Exh IIC T5 Gb |
| **3** | **Gc-4** | = CE Ex - II 3G Exh IIC T4 Gc |
| **4** | **Gc-5** | = CE Ex - II 3G Exh IIC T5 Gc |
| **5** | **Db-4** | = CE Ex - II 2D Exh IIIC 135°C Db |
| **6** | **Db-5** | = CE Ex - II 2D Exh IIIC 100°C Db |
| **7** | **Dc-4** | = CE Ex - II 3D Exh IIIC 135°C Dc |
| **8** | **Dc-5** | = CE Ex - II 3D Exh IIIC 100°C Dc |
| **9** | **Gc-4-x** | = CE Ex - II 3G Exh IIC T4 Gc-x |
| **10** | **Gc-5-x** | = CE Ex - II 3G Exh IIC T5 Gc-x |
| **11** | **Dc-4-x** | = CE Ex - II 3D Exh IIIC 135°C Dc-x |
| **12** | **Dc-5-x** | = CE Ex - II 3D Exh IIIC 100°C Dc-x |
| **13** | **b-Gb-4** | = CE Ex - II 2G Exh IIB T4 Gb |
| **14** | **b-Gb-5** | = CE Ex - II 2G Exh IIB T5 Gb |
| **15** | **b-Gc-4** | = CE Ex - II 3G Exh IIB T4 Gc |
| **16** | **b-Gc-5** | = CE Ex - II 3G Exh IIB T5 Gc |
| **17** | **b-Db-4-x** | = CE Ex - II 2D Exh IIIB 135°C Db-x |
| **18** | **b-Db-5-x** | = CE Ex - II 2D Exh IIIB 100°C Db-x |
| **19** | **b-Dc-4-x** | = CE Ex - II 3D Exh IIIB 135°C Dc-x |
| **20** | **b-Dc-5-x** | = CE Ex - II 3D Exh IIIB 100°C Dc-x |