



## Synchronous PM Motor and Drive Packages - IES2

### PM MOTOR AND COMBINED DRIVE - IES2

- Plug & Play solution
- Total speed control
- IP20 or IP66 / NEMA 4X outdoor
- Three package configurations

**HP Combi**  
Smart Flow Plus  
solutions to meet your needs

**IES2** 

## TECHNICAL DATA

### Motor Type

HPC 90 4500\_Plus\_IP20 4 kW - 4500 rpm | Drive three-phase - 500-600V

## PERFORMANCE DATA

| Package Type               | HPC 90 4500_Plus_IP20 |
|----------------------------|-----------------------|
| Rated Speed rpm            | 4500                  |
| Rated Power kW             | 4                     |
| Rated Power HP             | 5.5                   |
| Rated Torque Nm            | 8.5                   |
| Peak Torque Nm             | 25.5                  |
| Voltage Constant Vs        | 0.58                  |
| Torque Constant Nm/A       | 1.00                  |
| B.E.M.F. @ rated speed Vrs | 272                   |
| Rated Current Arms         | 8.5                   |
| Motor Efficiency IE code   | IE5                   |
| Motor Efficiency $\eta$ %  | 90.7                  |
| Motor Weight Kg            | 14                    |

|                                 |      |
|---------------------------------|------|
| <b>Drive Type</b>               | Flow |
| <b>Drive Size</b>               | 2    |
| <b>Drive Efficiency IE code</b> | IE2  |
| <b>HPC Efficiency IE code</b>   | IES2 |
| <b>HPC Efficiency ? %</b>       | 89.2 |

## Mechanical Data

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Design</b>               | ALUMINIUM                     |
| <b>Degree of protection</b> | IP 55                         |
| <b>Bearings DE</b>          | 6206 2Z                       |
| <b>Bearings NDE</b>         | 6304 2Z                       |
| <b>Lubrication grease</b>   | low & high temperature grease |
| <b>Regreasing device</b>    | permanent lubrication         |
| <b>Cooling</b>              | IC 411                        |
| <b>Vibration Level</b>      | A (normal)                    |

## Electrical Data

|                              |                |
|------------------------------|----------------|
| <b>Motor Supply Voltage</b>  | 400V - 50Hz    |
| <b>Duty type</b>             | S1             |
| <b>Insulation class</b>      | F              |
| <b>Direction of rotation</b> | bidirectional  |
| <b>Ambient temperature</b>   | -15°C / +40 °C |
| <b>Altitude</b>              | 1000 m.a.s.l.  |

## Drive Data

|                        |                     |
|------------------------|---------------------|
| <b>Drive Type</b>      | Plus                |
| <b>Drive Size</b>      | 2                   |
| <b>Supply Voltage</b>  | three-phase         |
| <b>Drive Voltage</b>   | 500-600V            |
| <b>Safety Function</b> | STO/PLC             |
| <b>Drive Torque</b>    | constant/variable   |
| <b>Fieldbus</b>        | CANopen; Modbus RTU |

|                             |                                                        |
|-----------------------------|--------------------------------------------------------|
| <b>Inputs</b>               | 3 Digital (+3 optional); 2 Analog / Digital selectable |
| <b>Outputs</b>              | 2 Analog / Digital; 2 Relays (+3 optional)             |
| <b>Degree of Protection</b> | IP 20                                                  |