



## 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\_Flow\_IP20 4 kW - 4500 rpm | Drive three-phase - 500-600V

## PERFORMANCE DATA

| Package Type               | HPC 90 4500_Flow_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                    |

|                          |      |
|--------------------------|------|
| Drive Type               | Flow |
| Drive Size               | 2    |
| Drive Efficiency IE code | IE2  |
| HPC Efficiency IE code   | IES2 |
| HPC Efficiency ? %       | 88.9 |

## Mechanical Data

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

## Electrical Data

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

## Drive Data

|                 |                          |
|-----------------|--------------------------|
| Drive Type      | Flow                     |
| Drive Size      | 2                        |
| Supply Voltage  | three-phase              |
| Drive Voltage   | 500-600V                 |
| Safety Function | STO/PLC                  |
| Drive Torque    | variable                 |
| Fieldbus        | BACnet MS/TP; 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                                                  |