



## SELECT YOUR MOTOR SUPPLY...

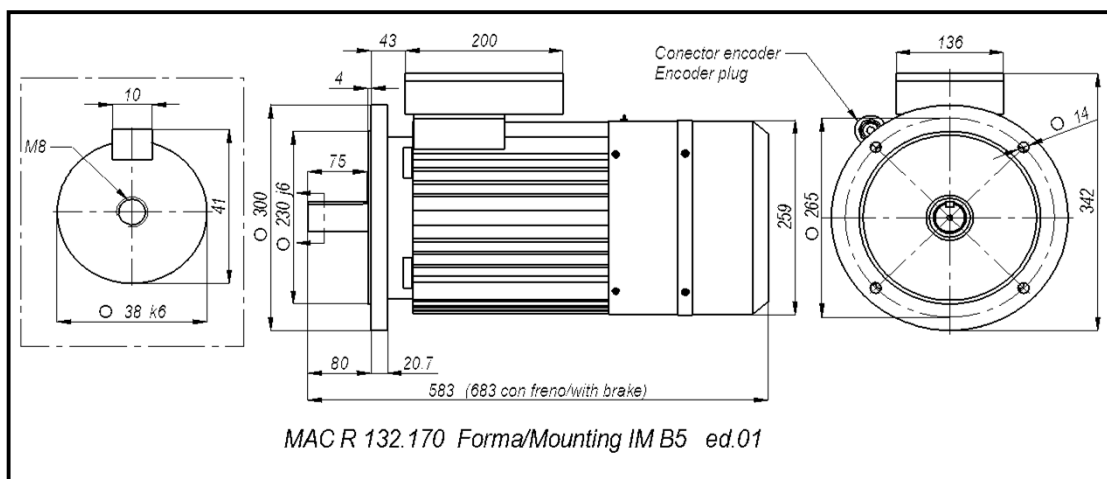
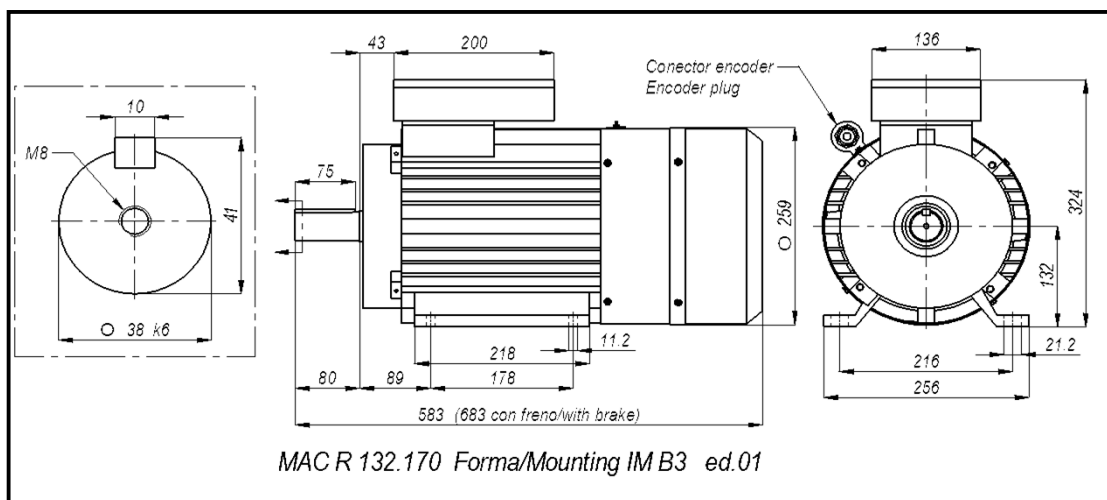
**230V  
Three Phase  
50Hz  
Delta  
Δ**

**400V  
Three Phase  
50Hz  
Star  
Y**

**400V  
Three Phase  
87Hz  
Delta  
Δ**

| Ventilador / Fan                                        |  | Rodamientos<br>Bearings |  | Delantero<br>Drive End                   |  | Trasero<br>Non Drive End                                                 |  |
|---------------------------------------------------------|--|-------------------------|--|------------------------------------------|--|--------------------------------------------------------------------------|--|
| Tensión / Voltage                                       |  | 1ph 230 V               |  | 6208 ZZ                                  |  | 6208 ZZ                                                                  |  |
| Frec. / Frequency                                       |  | 50 Hz 60 Hz             |  | Momento de inercia<br>Rotor Inertia      |  | Peso Motor<br>Motor Weight                                               |  |
| Corriente / Current                                     |  | 0,36 A 0,45 A           |  | J = 0,0318 Kg m <sup>2</sup>             |  | 59 Kg                                                                    |  |
| Condens. / Capacitor                                    |  | 2 uF / 450 V            |  | Protección<br>Protection Degree          |  | Refrigeración<br>Cooling                                                 |  |
| Velocidad / Speed                                       |  | 2300 rpm 2300 rpm       |  | IP 54                                    |  | IM B3 / B5                                                               |  |
| Caudal / Air flow                                       |  | 570 m3/h 570 m3/h       |  | Nivel de ruido<br>Noise Level            |  | 5000 rpm                                                                 |  |
| Equilibrado grado<br>Balancing degree                   |  | A                       |  | Aislamiento Clase<br>Insulation Class    |  | PTC 140 °C                                                               |  |
|                                                         |  | F                       |  | Protección Térmica<br>Thermal Protection |  | < 40 °C < 1000 m                                                         |  |
| Freno de Bloqueo (opcional)<br>Holding Brake (optional) |  | 70 Nm                   |  | 400V 50Hz / 460V 60Hz                    |  | 0,50 A                                                                   |  |
|                                                         |  |                         |  |                                          |  | 10,8 Kg                                                                  |  |
|                                                         |  |                         |  |                                          |  | J = 0,00302 Kg m <sup>2</sup>                                            |  |
| Tensión de Base del Motor<br>Motor Base Voltage         |  | Vb                      |  | 230 V                                    |  | Tensión Máxima de Salida del Convertidor<br>Inverter max. Output Voltage |  |
|                                                         |  |                         |  |                                          |  | Vc                                                                       |  |
|                                                         |  |                         |  |                                          |  | 230 V                                                                    |  |

| Servicio / Service S1  |      |      |     |      |    |                                                     | Servicio / Service S6 - 40% |      |      |      |    |                                                     |                                              |
|------------------------|------|------|-----|------|----|-----------------------------------------------------|-----------------------------|------|------|------|----|-----------------------------------------------------|----------------------------------------------|
| Conexión<br>Connection | Nm   | A    | KW  | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Nm                          | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Corriente en vacío<br>No Load Current<br>(A) |
| Y                      | 49.0 | 14.8 | 4.2 | 820  | 29 | 1270                                                | 72.6                        | 20.8 | 6.2  | 820  | 29 | 930                                                 | 6.4                                          |
| D                      | 49.0 | 25.6 | 7.5 | 1460 | 50 | 2260                                                | 72.5                        | 35.9 | 11.1 | 1460 | 51 | 1670                                                | 11.1                                         |



|            |            |            |
|------------|------------|------------|
| Elabora:   | Revisa:    | Aprueba:   |
| 27/10/2011 | 27/10/2011 | 27/10/2011 |





# MOTOR MAC R 132.170

Parámetros motor / Motor parameters

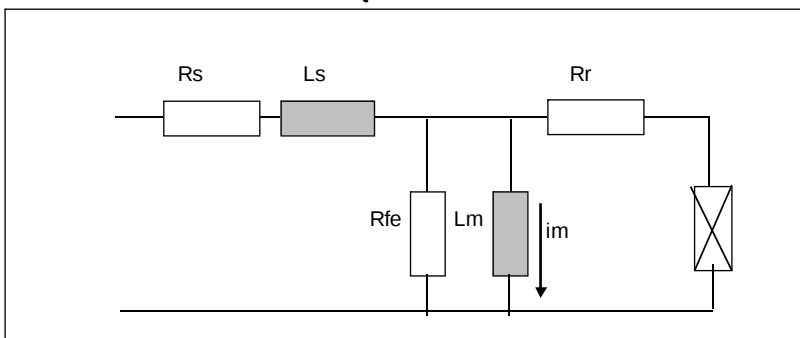
Fecha - Date 27-10-11

## PLACA DE CARACTERÍSTICAS / NAMEPLATE DATA

|             | R132.170<br>Y | R132.170<br>D |
|-------------|---------------|---------------|
| Nm          | 49            | 49            |
| rpm         | 820           | 1460          |
| KW          | 4.2           | 7.5           |
| V           | 230           | 230           |
| A           | 14.8          | 25.6          |
| Hz          | 28.8          | 50.0          |
| Cos fi      | 0.81          | 0.81          |
| Rend / eff. | 0.88          | 0.91          |
| J (Kg m2)   | 0.03180       | 0.03180       |

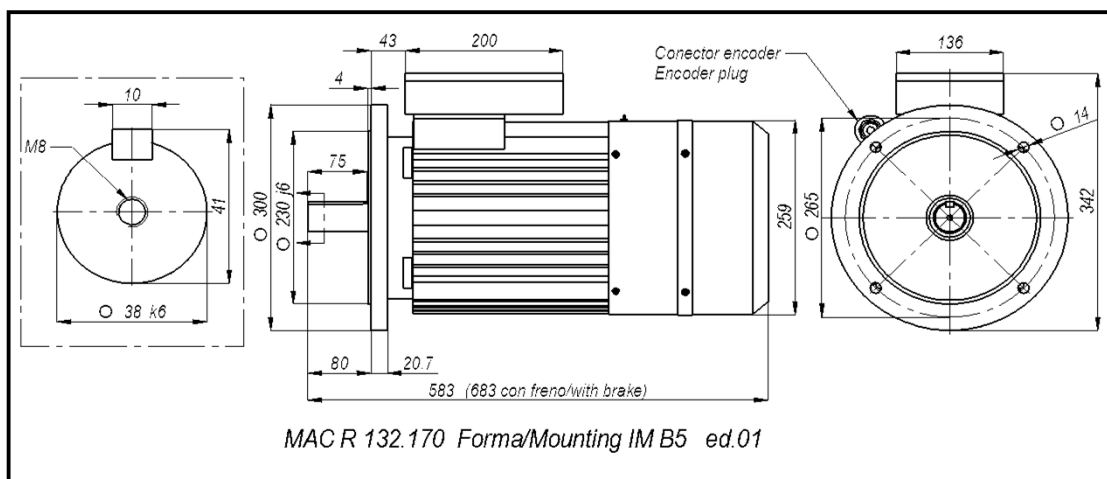
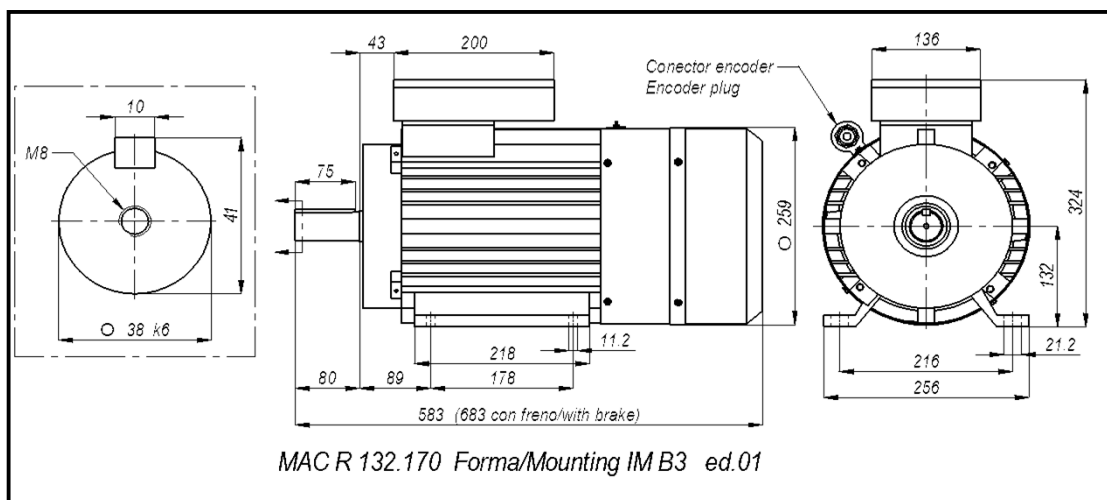
## ESQUEMA EQUIVALENTE POR FASE EN ESTRELLA / PHASE STAR EQUIVALENT SCHEMA

|             | R132.170<br>Y | R132.170<br>D |
|-------------|---------------|---------------|
| Rs (Ohm)    | 0.60          | 0.20          |
| Rr (Ohm)    | 0.45          | 0.15          |
| Rfe (Ohm)   | 599           | 200           |
| Ls (mH)     | 5.8           | 1.9           |
| Lm (mH)     | 104           | 35            |
| Ts (ms)     | 183           | 183           |
| Tr (ms)     | 231           | 231           |
| Im (A/fase) | 6.4           | 11.1          |



|                             |  |                      |                    |                   |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
|-----------------------------|--|----------------------|--------------------|-------------------|-----------|-----------------------|------------------------------|------------------------------------------|---------------|------------|---------------|-------------------------------|--|---------------------|-------|--|
| Ventilador / Fan            |  |                      | Rodamientos        |                   | Delantero |                       | Trasero                      |                                          |               |            |               |                               |  |                     |       |  |
|                             |  |                      | Bearings           |                   | Drive End |                       | 6208 ZZ                      |                                          | Non Drive End |            | 6208 ZZ       |                               |  |                     |       |  |
|                             |  |                      | Momento de inercia |                   |           |                       | Peso Motor                   |                                          |               |            |               |                               |  |                     |       |  |
|                             |  |                      | Rotor Inertia      |                   |           |                       | J = 0,0318 Kg m <sup>2</sup> |                                          |               |            | Motor Weight  |                               |  |                     | 59 Kg |  |
|                             |  |                      | Protección         |                   | IP 54     |                       | Construcción                 |                                          |               |            | Refrigeración |                               |  |                     |       |  |
| Protection Degree           |  |                      |                    | IM B3 / B5        |           |                       |                              | Cooling                                  |               |            |               | IC416                         |  |                     |       |  |
| Tensión / Voltage           |  | 1ph 230 V            |                    | Velocidad / Speed |           |                       |                              | Velocidad máxima mecánica                |               |            |               |                               |  |                     |       |  |
| Frec. / Frequency           |  | 50 Hz    60 Hz       |                    | Nivel de ruido    |           |                       |                              | Max. Mechanical Speed                    |               |            |               |                               |  |                     |       |  |
| Corriente / Current         |  | 0,36 A    0,45 A     |                    | < 70 dB           |           |                       |                              | 5000 rpm                                 |               |            |               |                               |  |                     |       |  |
| Condens. / Capacitor        |  | 2 uF / 450 V         |                    | Noise Level       |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
| Velocidad / Speed           |  | 2300 rpm    2300 rpm |                    |                   |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
| Caudal / Air flow           |  | 570 m3/h    570 m3/h |                    |                   |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
| Equilibrado grado           |  | A                    |                    | Aislamiento Clase |           | F                     |                              | Protección Térmica                       |               | PTC 140 °C |               | Ambiente                      |  | < 40 °C    < 1000 m |       |  |
| Balancing degree            |  |                      |                    | Insulation Class  |           |                       |                              | Thermal Protection                       |               |            |               | Ambient                       |  |                     |       |  |
| Freno de Bloqueo (opcional) |  |                      |                    |                   |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
| Holding Brake (optional)    |  |                      |                    |                   |           |                       |                              |                                          |               |            |               |                               |  |                     |       |  |
|                             |  |                      |                    | 70 Nm             |           | 400V 50Hz / 460V 60Hz |                              | 0,50 A                                   |               | 10,8 Kg    |               | J = 0,00302 Kg m <sup>2</sup> |  |                     |       |  |
| Tensión de Base del Motor   |  |                      |                    | Vb                |           | 400 V                 |                              | Tensión Máxima de Salida del Convertidor |               |            |               | Vc                            |  | 400 V               |       |  |
| Motor Base Voltage          |  |                      |                    |                   |           |                       |                              | Inverter max. Output Voltage             |               |            |               |                               |  |                     |       |  |

|                        | Servicio / Service S1 |      |      |      |    |                                                     | Servicio / Service S6 - 40% |      |      |      |    |                                                     |                                              |
|------------------------|-----------------------|------|------|------|----|-----------------------------------------------------|-----------------------------|------|------|------|----|-----------------------------------------------------|----------------------------------------------|
| Conexión<br>Connection | Nm                    | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Nm                          | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Corriente en vacío<br>No Load Current<br>(A) |
| Y                      | 49.0                  | 14.8 | 7.5  | 1460 | 50 | 2260                                                | 72.6                        | 20.8 | 11.1 | 1460 | 51 | 1670                                                | 6.4                                          |
| D                      | 49.0                  | 25.6 | 13.2 | 2570 | 87 | 3980                                                | 72.5                        | 35.9 | 19.5 | 2570 | 88 | 2940                                                | 11.1                                         |



|            |            |            |
|------------|------------|------------|
| Elabora:   | Revisa:    | Aprueba:   |
| 27/10/2011 | 27/10/2011 | 27/10/2011 |





## MOTOR MAC R 132.170

Parámetros motor / Motor parameters

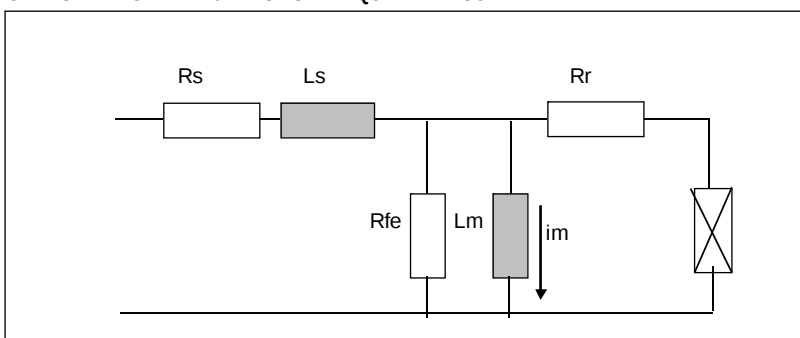
Fecha - Date 27-10-11

### PLACA DE CARACTERÍSTICAS / NAMEPLATE DATA

|             | R132.170<br>Y | R132.170<br>D |
|-------------|---------------|---------------|
| Nm          | 49            | 49            |
| rpm         | 1460          | 2570          |
| KW          | 7.5           | 13.2          |
| V           | 400           | 400           |
| A           | 14.8          | 25.6          |
| Hz          | 50.0          | 87.0          |
| Cos fi      | 0.81          | 0.81          |
| Rend / eff. | 0.90          | 0.92          |
| J (Kg m2)   | 0.03180       | 0.03180       |

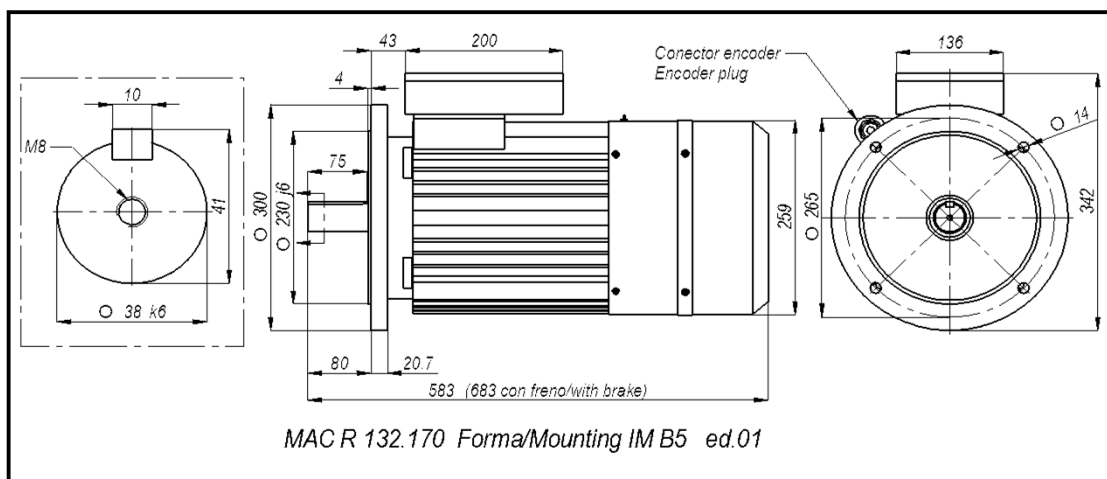
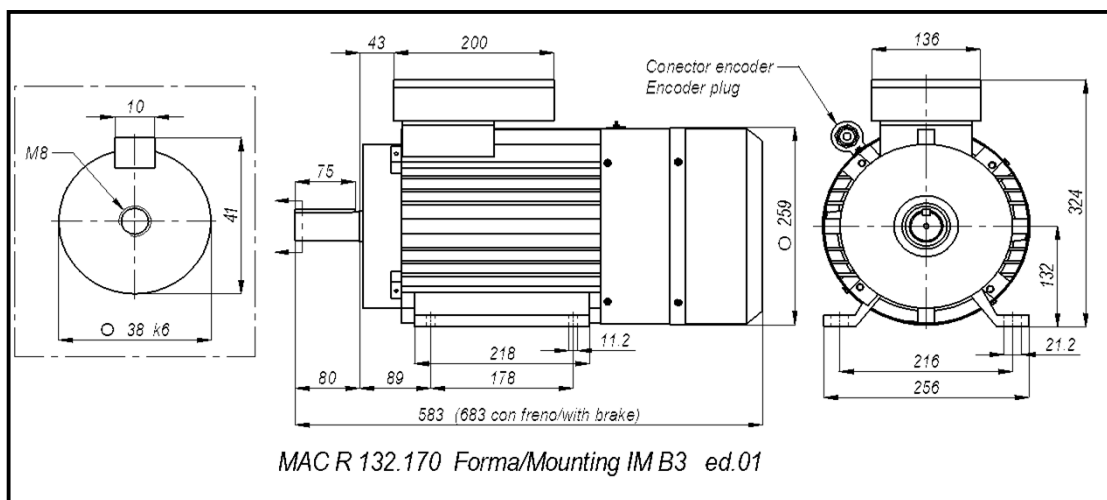
### ESQUEMA EQUIVALENTE POR FASE EN ESTRELLA / PHASE STAR EQUIVALENT SCHEMA

|             | R132.170<br>Y | R132.170<br>D |
|-------------|---------------|---------------|
| Rs (Ohm)    | 0.60          | 0.20          |
| Rr (Ohm)    | 0.45          | 0.15          |
| Rfe (Ohm)   | 599           | 200           |
| Ls (mH)     | 5.8           | 1.9           |
| Lm (mH)     | 104           | 35            |
| Ts (ms)     | 183           | 183           |
| Tr (ms)     | 231           | 231           |
| Im (A/fase) | 6.4           | 11.1          |



|                             |  |                      |                    |                   |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
|-----------------------------|--|----------------------|--------------------|-------------------|-----------|-------|------------------------------|------------------------------------------|---------------|------------|---------------|----------|--|---------------------|-------|--|
| Ventilador / Fan            |  |                      | Rodamientos        |                   | Delantero |       | Trasero                      |                                          |               |            |               |          |  |                     |       |  |
|                             |  |                      | Bearings           |                   | Drive End |       | 6208 ZZ                      |                                          | Non Drive End |            | 6208 ZZ       |          |  |                     |       |  |
|                             |  |                      | Momento de inercia |                   |           |       | Peso Motor                   |                                          |               |            |               |          |  |                     |       |  |
|                             |  |                      | Rotor Inertia      |                   |           |       | J = 0,0318 Kg m <sup>2</sup> |                                          |               |            | Motor Weight  |          |  |                     | 59 Kg |  |
|                             |  |                      | Protección         |                   | IP 54     |       | Construcción                 |                                          |               |            | Refrigeración |          |  |                     |       |  |
| Protection Degree           |  |                      |                    | IM B3 / B5        |           |       |                              | Cooling                                  |               |            |               | IC416    |  |                     |       |  |
| Tensión / Voltage           |  | 1ph 230 V            |                    | Velocidad / Speed |           |       |                              | Velocidad máxima mecánica                |               |            |               |          |  |                     |       |  |
| Frec. / Frequency           |  | 50 Hz    60 Hz       |                    | Nivel de ruido    |           |       |                              | Max. Mechanical Speed                    |               |            |               |          |  |                     |       |  |
| Corriente / Current         |  | 0,36 A    0,45 A     |                    | < 70 dB           |           |       |                              | 5000 rpm                                 |               |            |               |          |  |                     |       |  |
| Condens. / Capacitor        |  | 2 uF / 450 V         |                    | Noise Level       |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
| Velocidad / Speed           |  | 2300 rpm    2300 rpm |                    |                   |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
| Caudal / Air flow           |  | 570 m3/h    570 m3/h |                    |                   |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
| Equilibrado grado           |  | A                    |                    | Aislamiento Clase |           | F     |                              | Protección Térmica                       |               | PTC 140 °C |               | Ambiente |  | < 40 °C    < 1000 m |       |  |
| Balancing degree            |  |                      |                    | Insulation Class  |           |       |                              | Thermal Protection                       |               |            |               | Ambient  |  |                     |       |  |
| Freno de Bloqueo (opcional) |  |                      |                    |                   |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
| Holding Brake (optional)    |  |                      |                    |                   |           |       |                              |                                          |               |            |               |          |  |                     |       |  |
| Tensión de Base del Motor   |  |                      |                    | Vb                |           | 400 V |                              | Tensión Máxima de Salida del Convertidor |               |            |               | Vc       |  | 400 V               |       |  |
| Motor Base Voltage          |  |                      |                    |                   |           |       |                              | Inverter max. Output Voltage             |               |            |               |          |  |                     |       |  |

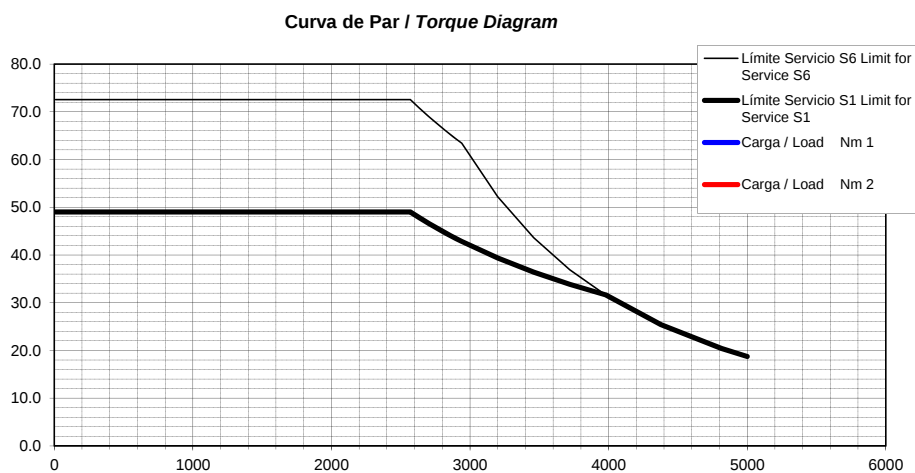
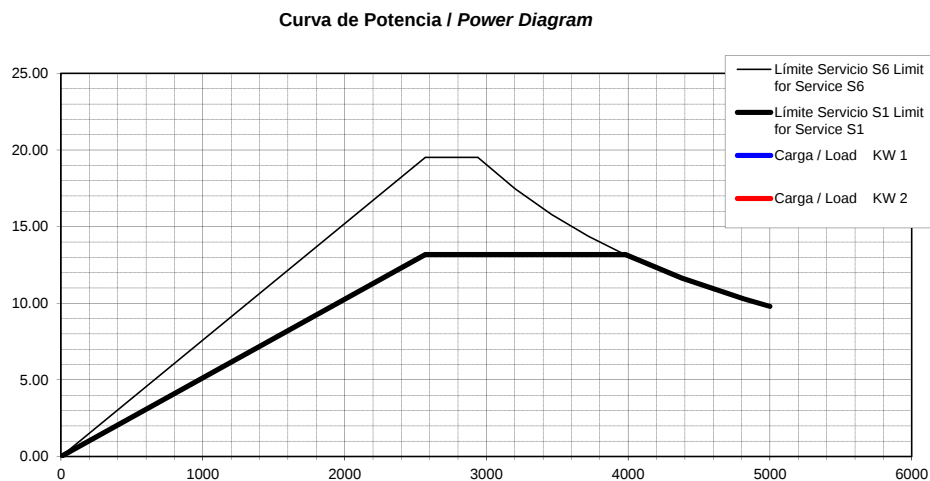
|                        | Servicio / Service S1 |      |      |      |    |                                                     | Servicio / Service S6 - 40% |      |      |      |    |                                                     |                                              |
|------------------------|-----------------------|------|------|------|----|-----------------------------------------------------|-----------------------------|------|------|------|----|-----------------------------------------------------|----------------------------------------------|
| Conexión<br>Connection | Nm                    | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Nm                          | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Corriente en vacío<br>No Load Current<br>(A) |
| Y                      | 49.0                  | 14.8 | 7.5  | 1460 | 50 | 2260                                                | 72.6                        | 20.8 | 11.1 | 1460 | 51 | 1670                                                | 6.4                                          |
| D                      | 49.0                  | 25.6 | 13.2 | 2570 | 87 | 3980                                                | 72.5                        | 35.9 | 19.5 | 2570 | 88 | 2940                                                | 11.1                                         |

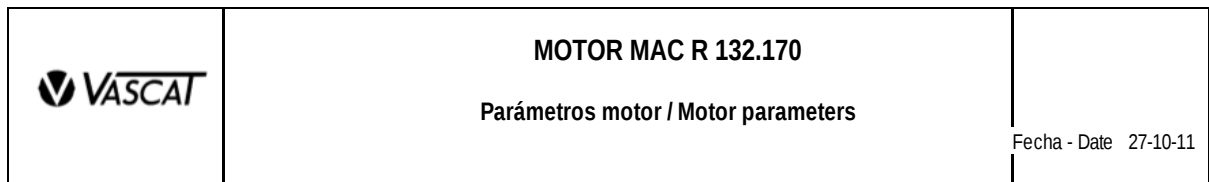


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|------------|------------|------------|
| Elabora:   | Revisa:    | Aprueba:   |
| 27/10/2011 | 27/10/2011 | 27/10/2011 |

|                                                        |              |                                                                                 |              |
|--------------------------------------------------------|--------------|---------------------------------------------------------------------------------|--------------|
| Tensión de Base del Motor<br><i>Motor Base Voltage</i> | <b>400 V</b> | Tensión Máxima de Salida del Convertidor<br><i>Inverter max. Output Voltage</i> | <b>400 V</b> |
|--------------------------------------------------------|--------------|---------------------------------------------------------------------------------|--------------|

|                     | Servicio / Service S1 |      |      |      |    |                                                     | Servicio / Service S6 - 40% |    |      |      |    |                                                     |                                              |
|---------------------|-----------------------|------|------|------|----|-----------------------------------------------------|-----------------------------|----|------|------|----|-----------------------------------------------------|----------------------------------------------|
| Bobinado<br>Winding | Nm                    | A    | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Nm                          | A  | KW   | rpm  | Hz | Velocidad a Pot.Cte<br>Const. Power Speed.<br>(rpm) | Corriente en vacío<br>No Load Current<br>(A) |
| D                   | 49.0                  | 25.6 | 13.2 | 2570 | 87 | 3980                                                | 73                          | 36 | 19.5 | 2570 | 88 | 2940                                                | 11.1                                         |

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|  | <p style="text-align: center;"><b>MOTOR MAC R 132.170</b></p> <p style="text-align: center;"><b>Parámetros motor / Motor parameters</b></p> | <p>Fecha - Date 27-10-11</p> |
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|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
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|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
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|                                           |  |
|-------------------------------------------|--|
| PLACA DE CARACTERÍSTICAS / NAMEPLATE DATA |  |
|-------------------------------------------|--|

|             | R132.170 | R132.170 |
|-------------|----------|----------|
|             | Y        | D        |
| Nm          | 49       | 49       |
| rpm         | 1460     | 2570     |
| KW          | 7.5      | 13.2     |
| V           | 400      | 400      |
| A           | 14.8     | 25.6     |
| Hz          | 50.0     | 87.0     |
| Cos fi      | 0.81     | 0.81     |
| Rend / eff. | 0.90     | 0.92     |
| J (Kg m2)   | 0.03180  | 0.03180  |

|  |          |          |  |
|--|----------|----------|--|
|  | R132 170 | R132 170 |  |
|--|----------|----------|--|

|             | R132.170<br>Y | R132.170<br>D |
|-------------|---------------|---------------|
| Rs (Ohm)    | 0.60          | 0.20          |
| Rr (Ohm)    | 0.45          | 0.15          |
| Rfe (Ohm)   | 599           | 200           |
| Ls (mH)     | 5.8           | 1.9           |
| Lm (mH)     | 104           | 35            |
| Ts (ms)     | 183           | 183           |
| Tr (ms)     | 231           | 231           |
| Im (A/fase) | 6.4           | 11.1          |

