

BRA Series
HCW [H]igh [C]leaning [W]ashdown
Serie Hygienic, IP69K, aluminium
Hi-Cleaning, NTT®



POWER TRANSMISSION



- 0,12..2,2kW – 2, 4 poles**
 - IEC 63..90 B14**
 - IP69K degree of protection**
 - Class F – IC410 - DUTY S1**
 - aluminum «Hy-Cleaning» coating**
- IE4**

Aluminum “Hi-Cleaning” motors, for food processing, pharmaceutical and other applications requiring extreme cleanliness and frequent washdowns

The aluminum motors HCW are proposed as an alternative to the “twin” HYW series 316L, where there are no extreme conditions require solely a stainless steel solution.

They are used in food, beverage or pharmaceutical production plants where the motors - along with other parts - are often subjected to **high pressure water jets** (sometimes at high temperatures) or even more **aggressive cleaning agents**, that on the contrary can cause damage to other kind of motor, or even contaminate the end product.

The HCW range has **no cooling fins** and it is painted with an **innovative “Hi-Cleaning” coating** with nano particles, which makes the surface very easy to clean and resistant to major aggressive used in sanitizing.

This means that waste products can be washed away easily leaving no residue and the motor can be used with **confidence** in food and or pharmaceutical processing areas.





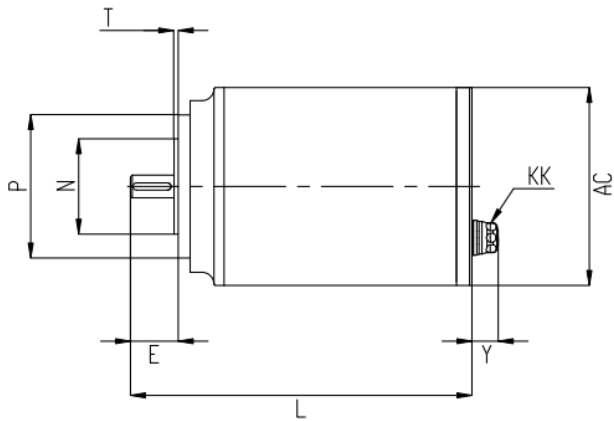
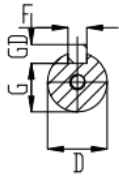
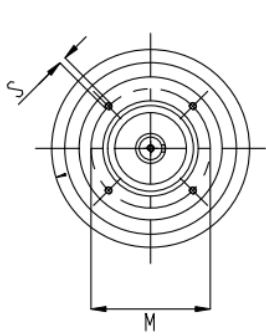
| P _N [kW] | Motor | n _N [min ⁻¹] | M _N [Nm] | I _N [A] | cosφ | η | | | M _S /M _N | M _{max} /M _N | I _S /I _N | J ₀ [kg m ²] | WB14 [kg] | WB5 [kg] |
|------------------------|------------|--|------------------------|-----------------------|------|------|------|------|--------------------------------|----------------------------------|--------------------------------|--|--------------|-------------|
| | | | | | | 100% | 75% | 50% | | | | | | |
| 0,18 | BRA 63 A 2 | 2820 | 0,61 | 0,42 | 0,82 | 75,2 | 73,5 | 71,6 | 3,0 | 4,0 | 6,0 | 0,0008 | 6,3 | (*) |
| 0,25 | BRA 63 B 2 | 2850 | 0,84 | 0,58 | 0,83 | 77,5 | 76,6 | 73,5 | 3,3 | 4,0 | 7,0 | 0,0011 | 7,5 | |
| 0,37 | BRA 71 A 2 | 2840 | 1,24 | 0,83 | 0,78 | 81,0 | 80,0 | 79,8 | 5,4 | 5,5 | 9,0 | 0,0014 | 8,9 | |
| 0,55 | BRA 71 B 2 | 2840 | 1,85 | 1,2 | 0,85 | 81,5 | 80,5 | 80,0 | 5,7 | 6,3 | 9,6 | 0,0017 | 10,6 | |
| 0,75 | BRA 80 A 2 | 2900 | 2,47 | 1,5 | 0,81 | 87,0 | 87,6 | 85,8 | 4,1 | 4,6 | 11,0 | 0,0031 | 14,6 | |
| 1,1 | BRA 80 B 2 | 2900 | 3,62 | 2,1 | 0,86 | 88,0 | 88,0 | 86,2 | 4,2 | 5,0 | 11,5 | 0,0040 | 18,1 | |
| 1,5 | BRA 90 S 2 | 2910 | 4,92 | 2,9 | 0,86 | 88,6 | 88,0 | 87,7 | 4,4 | 4,7 | 12,0 | 0,0053 | 22,1 | |
| 2,2 | BRA 90 L 2 | 2910 | 7,22 | 4,1 | 0,86 | 89,4 | 90,0 | 89,9 | 4,6 | 4,7 | 12,6 | 0,0070 | 27,9 | |
| 0,12 | BRA 63 A 4 | 1440 | 0,80 | 0,44 | 0,57 | 72,0 | 70,2 | 67,5 | 2,4 | 3,1 | 5,6 | 0,0011 | 6,3 | (*) |
| 0,18 | BRA 63 B 4 | 1440 | 1,2 | 0,58 | 0,62 | 75,0 | 72,0 | 69,9 | 2,4 | 3,1 | 5,8 | 0,0015 | 7,5 | |
| 0,25 | BRA 71 A 4 | 1440 | 1,7 | 0,64 | 0,73 | 77,9 | 75,0 | 71,5 | 2,7 | 3,0 | 6,1 | 0,0018 | 8,9 | |
| 0,37 | BRA 71 B 4 | 1440 | 2,5 | 0,9 | 0,73 | 81,1 | 79,8 | 77,0 | 3,2 | 3,4 | 6,9 | 0,0023 | 10,6 | |
| 0,55 | BRA 80 A 4 | 1460 | 3,6 | 1,3 | 0,73 | 83,9 | 82,1 | 80,3 | 3,7 | 4,8 | 9,1 | 0,0041 | 14,6 | |
| 0,75 | BRA 80 B 4 | 1460 | 4,9 | 1,7 | 0,74 | 85,7 | 86,5 | 83,8 | 4,2 | 5,0 | 10,0 | 0,0053 | 18,1 | |
| 1,1 | BRA 90 S 4 | 1460 | 7,2 | 2,4 | 0,78 | 87,2 | 87,3 | 85,4 | 4,0 | 4,7 | 10,1 | 0,0075 | 22,1 | |
| 1,5 | BRA 90 L 4 | 1460 | 9,8 | 3,2 | 0,78 | 88,2 | 88,1 | 86,4 | 4,5 | 5,1 | 10,8 | 0,010 | 27,9 | |

(*) for B5 execution, consult us

Certification for food contact The HCW coating is suitable for contact with food; The test was carried out according to the requirements of the following normative documents: UNI EN 1186/1:2003 Materials and articles in contact with food, D.M. 21/03/1973 and subsequent amendments, the European Directives 2002/72/EC and 1935/2004/EC



Test conducted with dirt agents Corrosion «Dirt» tests have been conducted at room temperature on a peci men, directly depositing the substances on the body. After deposition for 24 hours, the surface remains unchanged



| Size | Bearings | | CableGlands | IM B5 (*) | | | | | | IM B14 | | | | | |
|-------|----------|----------|-------------|----------------------------------|---|---|---|-------|---|--------|-------|-----|----|-------|-----|
| | DE | NDE | KK | M | N | P | R | n x S | T | M | N | P | R | n x S | T |
| 63 | 6202 2RZ | 6202 2RZ | M16X1.5 | (*) for B5 execution, consult us | | | | | | 75 | 60 j6 | 90 | ≤0 | 4xM5 | 2,5 |
| 71 | 6202 2RZ | 6202 2RZ | M20X1.5 | | | | | | | 85 | 70 j6 | 105 | ≤0 | 4xM6 | 2,5 |
| 80 | 6205 2RZ | 6203 2RZ | M20X1.5 | | | | | | | 100 | 80 j6 | 120 | ≤0 | 4xM6 | 3 |
| 90S/L | 6205 2RZ | 6203 2RZ | M25X1.5 | | | | | | | 115 | 95 j6 | 140 | ≤0 | 4xM8 | 3 |

| Size | Shaft | | | | | General | | |
|------|----------|----|---|------|----|---------|----|-----|
| | D | E | F | G | GD | AC | Y | L |
| 63A | 11 j6 M4 | 23 | 4 | 8,5 | 4 | 131 | 22 | 228 |
| 63B | | | | | | | | 243 |
| 71A | 14 j6 M5 | 30 | 5 | 11 | 5 | 131 | 25 | 265 |
| 71B | | | | | | | | 285 |
| 80A | 19 i6 M6 | 40 | 6 | 15,5 | 6 | 166 | 25 | 268 |
| 80B | | | | | | | | 288 |
| 90S | 24 j6 M8 | 50 | 8 | 20 | 7 | 166 | 30 | 333 |
| 90L | | | | | | | | 373 |

CASE HISTORIES

BISCUITS PROCESSING



Traditional aluminum motor after 1 year working

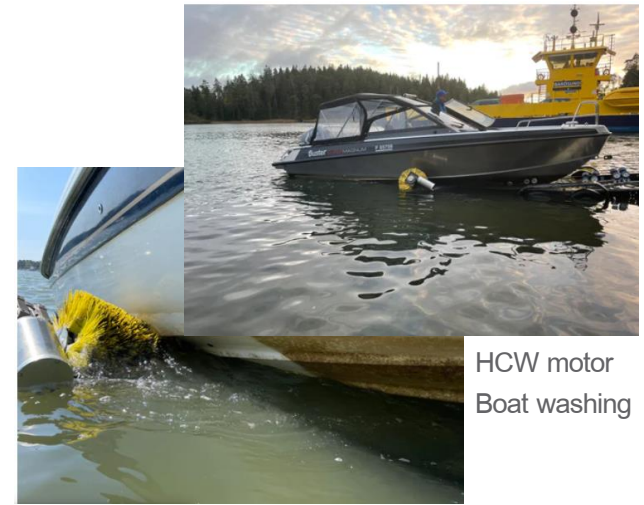
HCW motor after 1 year working



HCW motor after 2 years working in salt environment



HCW motor after 2 years working in a vinegar cell and in comparison with reducer with traditional coating system



HCW motor Boat washing