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ErP Directive implementation July 2023 reminder

We already touched on this subject in our latest February edition but as the deadline is drawing closer, it is a mere reminder that as of 01 July 2023 all three-phase motors 2p to 6p and between 75kW and 200kW will need to meet IE4 efficiency. The only exemption are motors used for applications regarded as means of transport. We are delighted to advise that the Van Houcke Group is ahead of the market trend and have been stocking IE4 motors since 2022. The other ErP Directive change will be inclusion of single-phase motors, which will now need to meet IE2 efficiency. Please refer to the following article for more details.

From 01 July 2021 until 30 June 2023

From 01 July 2023

Execution	From 01/07/2021		From 01/07/2023	
	Included	Excluded	Included	Excluded
Three-phase standard motors (50Hz, 60Hz, 50Hz/60Hz)	✓		✓	
Three-phase TENV (IC410) motors		✓		✓
Three-phase TEAO (IC418) motors	✓		✓	
Three-phase ATEX motors	✓ ⁽¹⁾		✓	
Three-phase ATEX mining motors		✓		✓
Three-phase brake motors	✓		✓	
Three-phase water-cooled motors (water temp 0°C to +32°C)	✓		✓	
Three-phase submersible motors		✓		✓
Three-phase low temperature motors (< -30°C)		✓		✓
Three-phase high temperature motors (> +60°C)		✓		✓
Three-phase high altitude motors (> 4000m a.s.l.)		✓		✓
Three-phase short-term/intermittent duty motors		✓		✓
Inverter duty motors per IEC60034-25		✓		✓
Three-phase equipment integrated motors		✓		✓
Multi speed motors (2-speed, 3-speed)		✓		✓
Three-phase slip-ring motors		✓		✓
Single phase motors for (50Hz, 60Hz, 50Hz/60Hz)			✓ ⁽²⁾	
Commutator motors		✓		✓

⁽¹⁾ ATEX Ex eb (increased safety motors) are exempt until 30/06/2023 - Must comply with IE2 from 01/07/2023.

⁽²⁾ All single-phase motors are exempt until 30/06/2023 - Must comply with IE2 from 01/07/2023.

Identical replacement motors may be supplied if the original motors were placed on the market before 01 July 2022.

A statement that the motor may only be used as a replacement must be on the motor, packaging and documentation.

Nameplate:

- ▶ Sticker
- ▶ Aluminium
- ▶ Stainless steel

Sticker:

- ▶ QR Code
- with Ser.No.

Single-phase motor range meeting IE2 efficiency in stock by the ErP Directive implementation!

If we retrospectively review the development of Efficiency Classes, the ErP Directive has been implemented so that the motor makers and designers have ample time to redesign their products and this process has been implemented from the 'easiest to the most difficult'. To begin with, the only inclusion were motors exceeding 0.75kW, 2p to 6p and safe area. As a rule of thumb, it is easier to meet higher efficiency at larger frames so the inclusion of motors below 0.75kW was implemented many years after the initial transition from **EFF1** and **EFF2** classification to the current **IE2 / IE3 / IE4** efficiency. Regarding motors certified for hazardous area, it has always been deemed more important to have a product 'fit for purpose' than increasing its energy efficiency but in recent years even motors certified for hazardous areas have been included in the scope of the ErP Directive .

Single-phase motors have always been inefficient by their design. Single-phase motors can only start using a capacitor (or two- cap start / cap run), the motor needs to be fitted with a switch or relay so the design has always been less efficient than that of a three-phase motor and it has also proven to be more challenging to upgrade to a higher IP rating. Due to the large installed base of single-phase motors within the EU, the ErP Directive has finally included single-phase motors with implementation date being 01 July 2023. Many motor manufacturers have found that upgrading the design to meet the new IE2 efficiency level will prove difficult. It will drive the product price to a higher level and some have decided not to pursue the new design at all. Some experts claim that IE2 efficiency within a single-phase motor range is the very maximum achievable efficiency unlike three-phase motors, which can achieve IE4 with ease.

Initially, the Van Houcke Group contemplated whether it is viable to continue with single-phase motors or whether to abandon the range and concentrate our efforts on single-phase in /three-phase out inverter + three-phase motor. We can assist with inverters mounted on top of the three-phase motor which makes the overall application more bulky and slightly more costly but also more reliable (especially for frequent switching on and off!). The factory we have cooperated with for many decades are still in the process of designing their IE2 single-phase range and we are being assured that it will be ready in time for the ErP Directive implementation.

In the February newsletter, we mentioned that in January 2023 we visited the FCM factory in Turkey. During our trip, we were shown the new single-phase motor range and we really liked the aesthetics of the motor appearance. The Van Houcke Group is committed to supplying quality products, our strategy is not be the cheapest, our strategy is to ensure our products 'do not come back' thus ensuring customer satisfaction through supplying reliable products. We therefore took several samples of the single-phase motors manufactured by the factory in Turkey and had them independently tested in a third party laboratory. We were really satisfied with the test results, all the motors met and also exceeded IE2 efficiency and even the laboratory we used for testing favourably commented on the quality of motors. Based on these independent tests, we ordered our first batch of single-phase IE2 motors, which will be in stock (in Northampton UK) in July 2023. We are excited as we believe the product quality coupled with the pricing will make the Van Houcke Group emerge as a reliable single-phase motor supplier and we deem this product enrichment as a strategy for sustainable growth.

We should also mention that the standard brakes we keep in stock for the range of three-phase FCM motors will fit on the back of these single-phase motors!

IE2 / CE / UKCA



Van Houcke UK training day

As planned, we held a **Training day** on 6th March, which was well attended with 24 participants from 13 companies who predominantly attended online. The training was split into two parts so not everyone attended the full day. We felt that the event went well. Due to the number of people attending online, much of the training was tailored to accommodate this so we didn't have much of hands on demonstration but judging from the feedback we received, we believe everyone enjoyed the sessions. We are currently not planning any training sessions but can facilitate '**lunch and learn**' which has been very popular in the past. **Lunch and learn** means we arrive to your premises and have access to a meeting room, we conduct the training presentation whilst the staff can dip in and out. This is usually most effective during lunch hours as this minimises any major disruption to your business day.

If you feel that you would benefit from a **lunch and learn** session, please contact **Lucie on 01933 322113** to discuss your training requirements.



Motor mounting positions overview

Our website analytics suggest that many people visit our website for technical information so based on the website performance, we will be listing the most popular data in our newsletters. For more information please either visit our website or contact us via email or call us on 01933 322113.

1st digit	IM1... Foot mounted	IM2... Foot & Flange mounted				IM3... Flange mounted		
2nd digit	IM10	IM200	IM21	IM21	IM30	IM36	IM36	
3rd digit	IM1001	IM2001	IM2101	IM2101	IM3001	IM3601	IM3601	
4th digit	B3	B3/B5	B3/B14A	B3/B14B	B5	B14A	B14B	
0								
1	IM1011 V5	IM2011 V15	IM2111 V15	IM2111 V15	IM3011 V1	IM3611 V18	IM3611 V18	
3	IM1031 V6	IM2031 V36	IM2131 V36	IM2131 V36	IM3031 V3	IM3631 V19	IM3631 V19	
5	IM1051 B6	IM2051	IM2151	IM2151	<p>The specified mounting is to be mentioned when ordering an electric motor. The actual motor mounting may influence the protection class and bearing design. Flange mounted electric motors need further specification of the required pitch circle diameter of the fixing holes in the flange (FF or FT type of flange + Dimension M). FF (Flange Free holes) - B5 flanges, FT (Flange Tapped holes) - B14A & B14B flanges The pitch circle diameter (M) is specified in the Standard</p>			
6	IM1061 B7	IM2061	IM2161	IM2161				
7	IM1071 B8	IM2071	IM2171	IM2171	<p>Abbreviated mounting positions: IM B35 B3/B5 IM B34A B3/B14A IM B34B B3/B14B</p>			
Without endshield	IM12 IM1201 B15	IM91 IM9101 B9	<p>Large 315 & 355 frame flange mounted horizontal motors may not support the weight. It is therefore necessary to select B3/B5 (foot & flange) mounted motor!</p>					

Feedback is important to us

We like to hear from our customer whether the feedback is positive or whether it is constructive criticism! We note all customer feedback and incorporate it into weekly meetings, which then leads to implementation of various measures to improve our service and adapt our product portfolio. We have listened to our customers regarding the pricing and availability of the the single-phase motor range so we have sourced another alternative. We are continually increasing our stockholding and amending the stock profile to accommodate our customers' needs. Your feedback can be provided via email or a phone call so please let us know what we are doing well and what we could be doing better!

