

Inverter data according to EU regulation 2019/1781

Content of this document:

This document lists the data according to the European regulation EU 2019/1781 for the frequency inverter series

ACT210 / ACT410

The reference numbers set in the regulation are shown also in this document as follows:

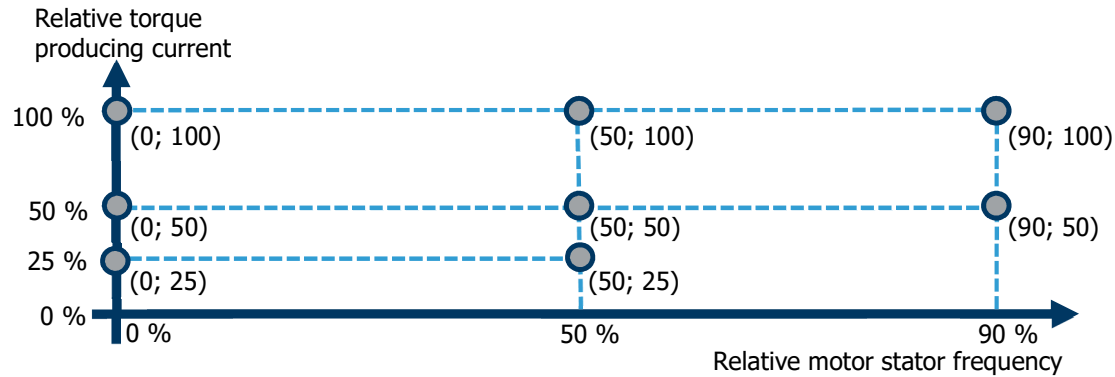
(1)	Power losses in % of the rated apparent output power at the following different operating points for relative motor stator frequency versus relative torque-producing current (0;25) (0;50) (0;100) (50;25) (50;50) (50;100) (90;50) (90;100)
	Standby losses
(2)	Efficiency level
(3)	Manufacturer's name, commercial registration number and address
(4)	Product's model identifier
(5)	Apparent output power [kVA]
(6)	Indicative motor rated power output [kW]
(7)	Rated output current [A]
(8)	Maximum operating temperature [°C] – <i>Note: Max. environment temperature; For temperature derating check the operating instructions</i>
(9)	Rated supply frequency [Hz]
(10)	Rated supply voltage [V] / Mains voltage [V]

Table of Contents according to subseries, mains voltage, mounting version and frame sizes:

Series	Mains Voltage	Mounting Version	Frame Size(s)	Page
ACT210	3 ~ 230 V ¹⁾	A: Air Cooling	1,2,3,4	2
		C: ColdPlate	1,2,3,4	3
ACT410	3 ~ 400 V	A: Air Cooling	1,2,3,4	4
			5,6,7,8	5
		C: ColdPlate	1,2,3	6
			4,5	7

- 1) ACT210 devices can also be operated in single phase 230 V mains installations. The data in the following tables consider the operation for three phase 230 V mains operations

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(D)	Frame Size		f _{PWM} [kHz]	(1)								(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Device ¹⁾				Power losses Relative [%] ²⁾																	
				(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)										P _{Loss Standby} [W]
IE classManufacturerModel IDS_{rated} [kVA]P_{rated} [kW]I_{rated} [A]Max. T [°C]f_{supply} [Hz] ⁵⁾V_{supply} [V] ⁶⁾																					
ACT-210051FASXXXW0	1	4	1.8	1.8	2.1	1.9	2	2.3	2.1	2.5	10	IE2	³⁾	⁴⁾	1.2	0.55	3	55	⁵⁾	230	
ACT-210071FASXXXW0	1	4	1.3	1.5	1.9	1.4	1.6	2.1	1.7	2.4	10	IE2	³⁾	⁴⁾	1.6	0.75	4	55	⁵⁾	230	
ACT-210091FASXXXW0	1	4	1.2	1.3	1.8	1.2	1.5	2.1	1.6	2.3	10	IE2	³⁾	⁴⁾	2.2	1.1	5.4	55	⁵⁾	230	
ACT-210112FASXXXW0	2	4	1.5	1.7	2.1	1.6	1.9	2.5	2	2.8	11.7	IE2	³⁾	⁴⁾	2.8	1.5	7	55	⁵⁾	230	
ACT-210132FASXXXW0	2	4	1.5	1.6	2.1	1.5	1.8	2.5	2	2.8	11.7	IE2	³⁾	⁴⁾	3.8	2.2	9.5	55	⁵⁾	230	
ACT-210152FASXXXW0	2	4	1.4	1.6	2.1	1.5	1.8	2.6	2	3	11.7	IE2	³⁾	⁴⁾	5	3	12.5	55	⁵⁾	230	
ACT-210183FASXXXW0	3	4	1.9	2.1	2.6	1.9	2.2	2.9	2.3	3.2	16.3	IE2	³⁾	⁴⁾	7.2	4	18	55	⁵⁾	230	
ACT-210193FASXXXW0	3	4	1.6	1.8	2.6	1.6	1.9	2.9	2.1	3.3	16.3	IE2	³⁾	⁴⁾	8.8	5.5	22	55	⁵⁾	230	
ACT-210214ASXXXW00	4	4	1.4	1.6	2.4	1.4	1.7	2.6	1.9	2.9	19	IE2	³⁾	⁴⁾	12.7	7.5	32	55	⁵⁾	230	
ACT-210224ASXXXW00	4	4	1.3	1.6	2.4	1.4	1.7	2.6	1.8	3	19	IE2	³⁾	⁴⁾	13.9	9.2	35	55	⁵⁾	230	

1) The table shows the type number of the typical variant of the series. The gray colored area of the type number can vary without changing efficiency data values.

2) Relative power losses relate to the Nominal Apparent power.

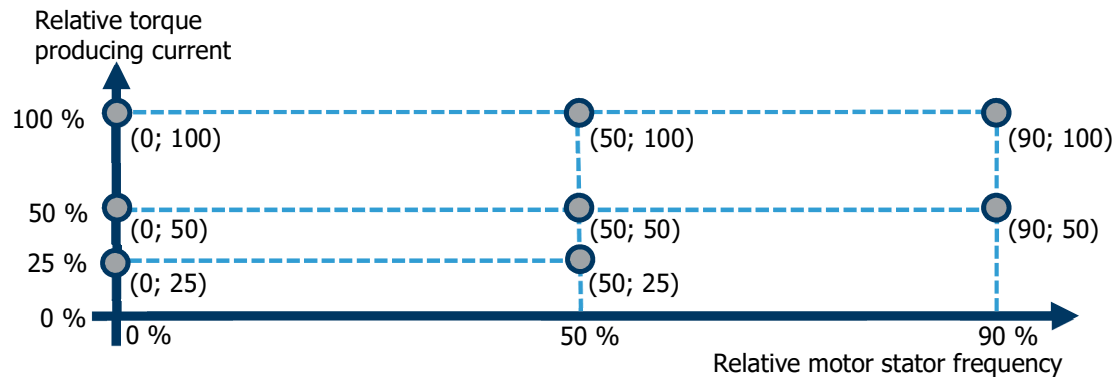
3) Manufacturer: Bonfiglioli Deutschland GmbH Europark Fichtenhain B6
Register Court Neuss, HRB 9981 D-47807 Krefeld

4) See column (D) Device

5) f_{supply} : 50/60 Hz (±10 %)

6) V_{supply} : 400: AC 3~320...480 (+10%) V 230: AC 3~184...240 V (+10 %)

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(D)	Frame Size		(1)										(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Device ¹⁾			Power losses Relative [%] ²⁾																		
			f _{PWM} [kHz]		(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)									
												IE class	Manufacturer	Model ID	S _{rated} [kVA]	P _{rated} [kW]	I _{rated} [A]	Max. T [°C]	f _{supply} [Hz] ⁵⁾	V _{supply} [V] ⁶⁾	
ACT-210051FCSXXXW0	1	4	1.8	1.8	2.1	1.9	2	2.3	2.1	2.5	10	IE2	³⁾	⁴⁾	1.2	0.55	3	55	⁵⁾	230	
ACT-210071FCSXXXW0	1	4	1.3	1.5	1.9	1.4	1.6	2.1	1.7	2.4	10	IE2	³⁾	⁴⁾	1.6	0.75	4	55	⁵⁾	230	
ACT-210091FCSXXXW0	1	4	1.2	1.3	1.8	1.2	1.5	2.1	1.6	2.3	10	IE2	³⁾	⁴⁾	2.2	1.1	5.4	55	⁵⁾	230	
ACT-210112FCSXXXW0	2	4	1.2	1.3	1.8	1.2	1.5	2.1	1.6	2.4	11.7	IE2	³⁾	⁴⁾	2.8	1.5	7	55	⁵⁾	230	
ACT-210132FCSXXXW0	2	4	1.1	1.3	1.7	1.2	1.4	2.1	1.6	2.4	11.7	IE2	³⁾	⁴⁾	3.8	2.2	9.5	55	⁵⁾	230	
ACT-210152FCSXXXW0	2	4	1	1.2	1.7	1.1	1.4	2.1	1.6	2.5	11.7	IE2	³⁾	⁴⁾	5	3	12.5	55	⁵⁾	230	
ACT-210183FCSXXXW0	3	4	1.4	1.6	2.2	1.5	1.8	2.5	1.9	2.8	16.3	IE2	³⁾	⁴⁾	7.2	4	18	55	⁵⁾	230	
ACT-210193FCSXXXW0	3	4	1.1	1.4	2.2	1.2	1.5	2.5	1.6	2.8	16.3	IE2	³⁾	⁴⁾	8.8	5.5	22	55	⁵⁾	230	
ACT-210214CSXXXW00	4	4	0.9	1.2	2	1	1.3	2.2	1.4	2.5	19	IE2	³⁾	⁴⁾	12.7	7.5	32	55	⁵⁾	230	
ACT-210224CSXXXW00	4	4	0.9	1.2	2	1	1.3	2.2	1.4	2.6	19	IE2	³⁾	⁴⁾	13.9	9.2	35	55	⁵⁾	230	

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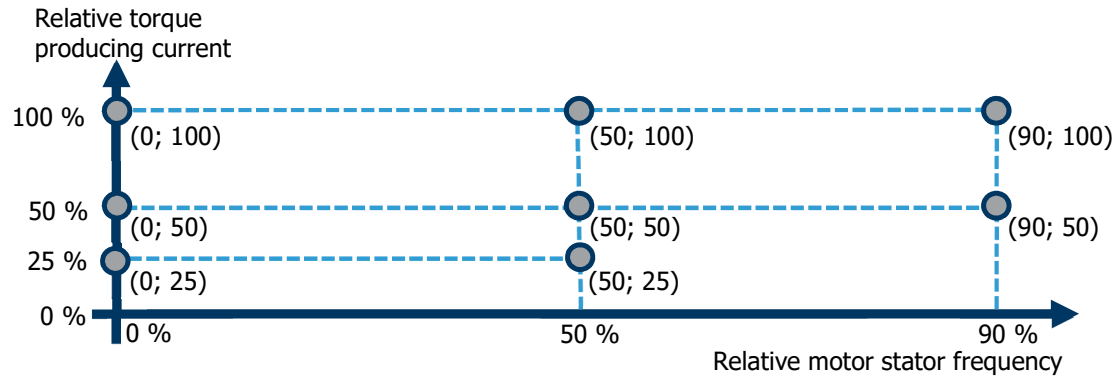
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Device ¹⁾			Power losses Relative [%] ²⁾									P _{Loss Standby} [W]	IE class	Manufacturer	Model ID	S _{rated} [kVA]	P _{rated} [kW]	I _{rated} [A]	Max. T [°C]	f _{supply} [Hz] ⁵⁾	V _{supply} [V] ⁶⁾
			(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)											
ACT-410051FASXXXW0	1	4	1.8	1.8	2	1.9	1.9	2.1	2	2.2	10	IE2	³⁾	⁴⁾	1.2	0.55	1.8	55	⁵⁾	400	
ACT-410071FASXXXW0	1	4	1.3	1.4	1.7	1.4	1.5	1.8	1.6	2	10	IE2	³⁾	⁴⁾	1.7	0.75	2.4	55	⁵⁾	400	
ACT-410091FASXXXW0	1	4	1.1	1.2	1.5	1.1	1.3	1.6	1.4	1.8	10	IE2	³⁾	⁴⁾	2.2	1.1	3.2	55	⁵⁾	400	
ACT-410111FASXXXW0	1	4	1	1.1	1.4	1	1.2	1.5	1.3	1.7	10	IE2	³⁾	⁴⁾	2.6	1.5	3.8	55	⁵⁾	400	
ACT-410122FASXXXW0	2	4	1.3	1.4	1.6	1.3	1.4	1.8	1.5	1.9	11.7	IE2	³⁾	⁴⁾	2.9	1.85	4.2	55	⁵⁾	400	
ACT-410132FASXXXW0	2	4	1.1	1.2	1.5	1.2	1.3	1.7	1.4	1.8	11.7	IE2	³⁾	⁴⁾	4	2.2	5.8	55	⁵⁾	400	
ACT-410152FASXXXW0	2	4	1.1	1.2	1.5	1.1	1.2	1.6	1.3	1.8	11.7	IE2	³⁾	⁴⁾	5.4	3	7.8	55	⁵⁾	400	
ACT-410182FASXXXW0	2	4	1	1.2	1.4	1.1	1.2	1.6	1.3	1.8	11.7	IE2	³⁾	⁴⁾	6.2	4	9	55	⁵⁾	400	
ACT-410193FASXXXW0	3	4	1.4	1.5	2	1.4	1.6	2.2	1.7	2.4	16.3	IE2	³⁾	⁴⁾	9.7	5.5	14	55	⁵⁾	400	
ACT-410213FASXXXW0	3	4	1.2	1.4	1.9	1.3	1.5	2.1	1.6	2.3	16.3	IE2	³⁾	⁴⁾	12.5	7.5	18	55	⁵⁾	400	
ACT-410223FASXXXW0	3	4	1.2	1.3	1.9	1.2	1.4	2.1	1.5	2.3	16.3	IE2	³⁾	⁴⁾	15.2	9.2	22	55	⁵⁾	400	
ACT-410193ASXXXW00	3	4	1.4	1.5	2	1.4	1.6	2.2	1.7	2.4	16.3	IE2	³⁾	⁴⁾	9.7	5.5	14	55	⁵⁾	400	
ACT-410213ASXXXW00	3	4	1.2	1.4	1.9	1.3	1.5	2.1	1.6	2.3	16.3	IE2	³⁾	⁴⁾	12.5	7.5	18	55	⁵⁾	400	
ACT-410223ASXXXW00	3	4	1.2	1.3	1.9	1.2	1.4	2.1	1.5	2.3	16.3	IE2	³⁾	⁴⁾	15.2	9.2	22	55	⁵⁾	400	
ACT-410234ASXXXW00	4	4	1.1	1.3	1.8	1.1	1.3	1.9	1.4	2.1	19	IE2	³⁾	⁴⁾	17.3	11	25	55	⁵⁾	400	
ACT-410254ASXXXW00	4	4	1	1.2	1.7	1	1.3	1.9	1.3	2.1	19	IE2	³⁾	⁴⁾	22.2	15	32	55	⁵⁾	400	

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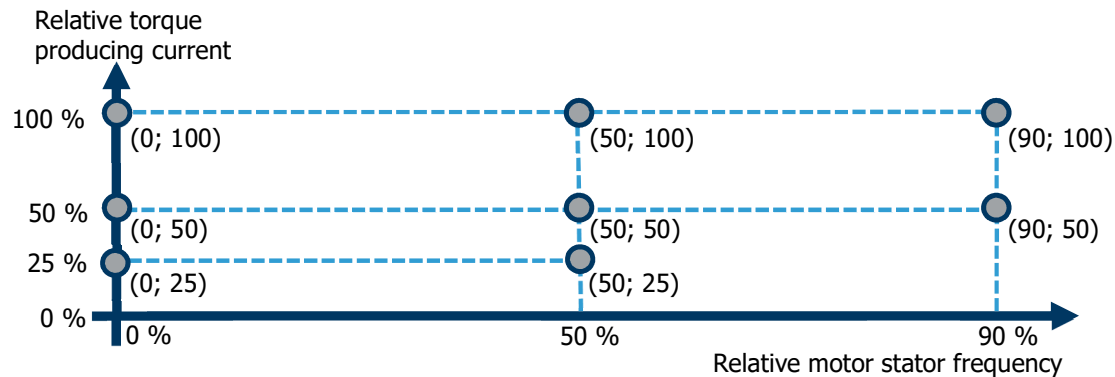
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(D)	Frame Size		(1)										(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
Device ¹⁾			f _{PWM} [kHz]	Power losses Relative [%] ²⁾																		P _{Loss Standby} [W]	
				(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)												
												IE class	Manufacturer	Model ID	S _{rated} [kVA]	P _{rated} [kW]	I _{rated} [A]	Max. T [°C]	f _{supply} [Hz] ⁵⁾	V _{supply} [V] ⁶⁾			
ACT-410275ASXXXW00	5	4	0.9	1	1.5	0.9	1.1	1.6	1.2	1.8	28.7	IE2	³⁾	⁴⁾	27.7	18.5	40	55	⁵⁾	400			
ACT-410295ASXXXW00	5	4	0.9	1	1.5	0.9	1.1	1.6	1.2	1.8	28.7	IE2	³⁾	⁴⁾	31.2	22	45	55	⁵⁾	400			
ACT-410315ASXXXW00	5	4	0.8	1	1.4	0.9	1	1.6	1.1	1.8	28.7	IE2	³⁾	⁴⁾	41.6	30	60	55	⁵⁾	400			
ACT-410336ASXXXW00	6	4	0.9	1.1	1.5	0.9	1.1	1.7	1.2	1.9	49	IE2	³⁾	⁴⁾	52	37	75	55	⁵⁾	400			
ACT-410356ASXXXW00	6	4	0.8	1	1.5	0.9	1.1	1.7	1.1	1.8	49	IE2	³⁾	⁴⁾	62.4	45	90	55	⁵⁾	400			
ACT-410376ASXXXW00	6	4	0.8	1	1.5	0.8	1	1.6	1.1	1.8	49	IE2	³⁾	⁴⁾	76.2	55	110	55	⁵⁾	400			
ACT-410396ASXXXW00	6	4	0.8	1	1.5	0.8	1	1.6	1.1	1.8	49	IE2	³⁾	⁴⁾	86.6	65	125	55	⁵⁾	400			
ACT-410437ASXXXW00	7	4	0.7	0.9	1.3	0.7	0.9	1.5	1	1.7	49.5	IE2	³⁾	⁴⁾	104	75	150	55	⁵⁾	400			
ACT-410457ASXXXW00	7	2	0.5	0.6	1	0.5	0.7	1.1	0.8	1.3	49.5	IE2	³⁾	⁴⁾	125	90	180	55	⁵⁾	400			
ACT-410477ASXXXW00	7	2	0.5	0.6	1	0.5	0.7	1.2	0.8	1.4	49.5	IE2	³⁾	⁴⁾	145	110	210	55	⁵⁾	400			
ACT-410497ASXXXW00	7	2	0.5	0.6	1.1	0.5	0.7	1.2	0.8	1.4	49.5	IE2	³⁾	⁴⁾	173	132	250	55	⁵⁾	400			

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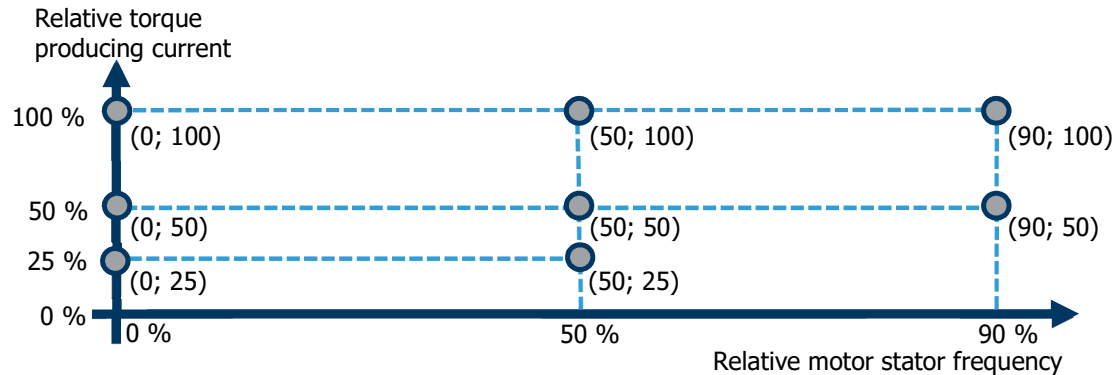
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Device ¹⁾			f _{PWM} [kHz]	Power losses Relative [%] ²⁾																		
				(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)	P _{Loss Standby} [W]										
IE classManufacturerModel IDS_{rated} [kVA]P_{rated} [kW]I_{rated} [A]Max. T [°C]f_{supply} [Hz] ⁵⁾V_{supply} [V] ⁶⁾																						
ACT-410051FCSXXXW0	1	4	1.8	1.8	2	1.9	1.9	2.1	2	2.2	10	IE2	³⁾	⁴⁾	1.2	0.55	1.8	55	⁵⁾	400		
ACT-410071FCSXXXW0	1	4	1.3	1.4	1.7	1.4	1.5	1.8	1.6	2	10	IE2	³⁾	⁴⁾	1.7	0.75	2.4	55	⁵⁾	400		
ACT-410091FCSXXXW0	1	4	1.1	1.2	1.5	1.1	1.3	1.6	1.4	1.8	10	IE2	³⁾	⁴⁾	2.2	1.1	3.2	55	⁵⁾	400		
ACT-410111FCSXXXW0	1	4	1	1.1	1.4	1	1.2	1.5	1.3	1.7	10	IE2	³⁾	⁴⁾	2.6	1.5	3.8	55	⁵⁾	400		
ACT-410122FCSXXXW0	2	4	1	1.1	1.4	1	1.2	1.5	1.2	1.6	11.7	IE2	³⁾	⁴⁾	2.9	1.85	4.2	55	⁵⁾	400		
ACT-410132FCSXXXW0	2	4	0.9	1	1.3	0.9	1.1	1.4	1.1	1.5	11.7	IE2	³⁾	⁴⁾	4	2.2	5.8	55	⁵⁾	400		
ACT-410152FCSXXXW0	2	4	0.8	0.9	1.2	0.9	1	1.4	1.1	1.5	11.7	IE2	³⁾	⁴⁾	5.4	3	7.8	55	⁵⁾	400		
ACT-410182FCSXXXW0	2	4	0.8	0.9	1.2	0.8	1	1.4	1.1	1.5	11.7	IE2	³⁾	⁴⁾	6.2	4	9	55	⁵⁾	400		
ACT-410193FCSXXXW0	3	4	1	1.2	1.7	1.1	1.3	1.9	1.4	2.1	16.3	IE2	³⁾	⁴⁾	9.7	5.5	14	55	⁵⁾	400		
ACT-410213FCSXXXW0	3	4	0.9	1.1	1.6	1	1.2	1.8	1.2	2	16.3	IE2	³⁾	⁴⁾	12.5	7.5	18	55	⁵⁾	400		
ACT-410223FCSXXXW0	3	4	0.8	1	1.6	0.9	1.1	1.8	1.2	2	16.3	IE2	³⁾	⁴⁾	15.2	9.2	22	55	⁵⁾	400		
ACT-410193CSXXXW00	3	4	1	1.2	1.7	1.1	1.3	1.9	1.4	2.1	16.3	IE2	³⁾	⁴⁾	9.7	5.5	14	55	⁵⁾	400		
ACT-410213CSXXXW00	3	4	0.9	1.1	1.6	1	1.2	1.8	1.2	2	16.3	IE2	³⁾	⁴⁾	12.5	7.5	18	55	⁵⁾	400		
ACT-410223CSXXXW00	3	4	0.8	1	1.6	0.9	1.1	1.8	1.2	2	16.3	IE2	³⁾	⁴⁾	15.2	9.2	22	55	⁵⁾	400		

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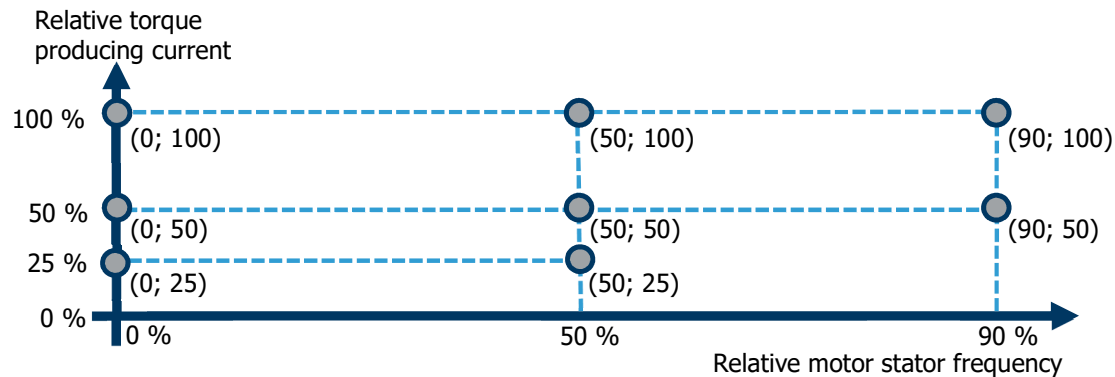
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			(0;25)	(0;50)	(0;100)	(50;25)	(50;50)	(50;100)	(90;50)	(90;100)										
ACT-410234CSXXXW00	4	4	0.8	1	1.5	0.8	1	1.6	1.1	1.8	19	IE2	³⁾	⁴⁾	17.3	11	25	55	⁵⁾	400
ACT-410254CSXXXW00	4	4	0.7	0.9	1.4	0.8	1	1.6	1.1	1.8	19	IE2	³⁾	⁴⁾	22.2	15	32	55	⁵⁾	400
ACT-410275CSXXXW00	5	4	0.6	0.8	1.2	0.7	0.9	1.4	0.9	1.6	28.7	IE2	³⁾	⁴⁾	27.7	18.5	40	55	⁵⁾	400
ACT-410295CSXXXW00	5	4	0.6	0.8	1.2	0.6	0.8	1.4	0.9	1.6	28.7	IE2	³⁾	⁴⁾	31.2	22	45	55	⁵⁾	400
ACT-410315CSXXXW00	5	4	0.6	0.7	1.2	0.6	0.8	1.4	0.9	1.6	28.7	IE2	³⁾	⁴⁾	41.6	30	60	55	⁵⁾	400

1) The table shows the type number of the typical variant of the series. The gray colored area of the type number can vary without changing efficiency data values.

2) Relative power losses relate to the Nominal Apparent power.

3) Manufacturer: Bonfiglioli Deutschland GmbH Europark Fichtenhain B6
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4) See column (D) Device

5) f_{supply} : 50/60 Hz (±10 %)

6) V_{supply} : 400: AC 3~320...480 (+10%) V 230: AC 3~184...240 V (+10 %)