

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS11ANSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	29.1	4.9
50	100	27.2	4.5
0	100	25	4.2
90	50	26	4.3
50	50	25	4.2
0	50	23.8	4
50	25	24.4	4.1
0	25	23.7	4

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IE2

Series: **MS300**Model name: **VFD1A6MS11ENSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	29.1	4.9
50	100	27.2	4.5
0	100	25	4.2
90	50	26	4.3
50	50	25	4.2
0	50	23.8	4
50	25	24.4	4.1
0	25	23.7	4

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A5MS11ANSAA**

Apparent output power	1	kVA
Rated output current	2.5	A
Rated power output	0.4	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	34.9	3.5
50	100	31.3	3.1
0	100	27.3	2.7
90	50	29.6	3
50	50	27.7	2.8
0	50	25.6	2.6
50	25	26.7	2.7
0	25	25.4	2.5

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A5MS11ENSAA**

Apparent output power	1	kVA
Rated output current	2.5	A
Rated power output	0.4	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	34.9	3.5
50	100	31.3	3.1
0	100	27.3	2.7
90	50	29.6	3
50	50	27.7	2.8
0	50	25.6	2.6
50	25	26.7	2.7
0	25	25.4	2.5

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS11ANSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	54.7	3
50	100	47.5	2.6
0	100	40.3	2.2
90	50	42.2	2.3
50	50	38.9	2.2
0	50	35.2	2
50	25	34.8	1.9
0	25	33	1.8

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS11ENSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	100-120	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	54.7	3
50	100	47.5	2.6
0	100	40.3	2.2
90	50	42.2	2.3
50	50	38.9	2.2
0	50	35.2	2
50	25	34.8	1.9
0	25	33	1.8

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS21ANSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	31.1	5.2
50	100	30.2	5
0	100	29.1	4.9
90	50	28.7	4.8
50	50	28.2	4.7
0	50	27.7	4.6
50	25	27.9	4.7
0	25	27.5	4.6

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS21ENSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	31.1	5.2
50	100	30.2	5
0	100	29.1	4.9
90	50	28.7	4.8
50	50	28.2	4.7
0	50	27.7	4.6
50	25	27.9	4.7
0	25	27.5	4.6

Energy Efficiency Report

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS21AFSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	32.7	5.5
50	100	31.6	5.3
0	100	30.5	5.1
90	50	30.2	5
50	50	29.7	5
0	50	29.1	4.9
50	25	29.3	4.9
0	25	28.9	4.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300
Model name:	VFD1A6MS21EFSAA

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	32.7	5.5
50	100	31.6	5.3
0	100	30.5	5.1
90	50	30.2	5
50	50	29.7	5
0	50	29.1	4.9
50	25	29.3	4.9
0	25	28.9	4.8

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS21ANSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	37	3.4
50	100	35.1	3.2
0	100	33	3
90	50	32.7	3
50	50	31.8	2.9
0	50	30.6	2.8
50	25	31.1	2.8
0	25	30.3	2.8

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS21ENSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	37	3.4
50	100	35.1	3.2
0	100	33	3
90	50	32.7	3
50	50	31.8	2.9
0	50	30.6	2.8
50	25	31.1	2.8
0	25	30.3	2.8

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS21AFSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	38.9	3.5
50	100	36.7	3.3
0	100	34.4	3.1
90	50	34.3	3.1
50	50	33.2	3
0	50	32	2.9
50	25	32.5	3
0	25	31.8	2.9

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS21EFSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	38.9	3.5
50	100	36.7	3.3
0	100	34.4	3.1
90	50	34.3	3.1
50	50	33.2	3
0	50	32	2.9
50	25	32.5	3
0	25	31.8	2.9

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS21ANSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	52	2.9
50	100	48	2.7
0	100	43.8	2.4
90	50	40.9	2.3
50	50	39	2.2
0	50	36.8	2
50	25	35	1.9
0	25	33.9	1.9

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS21ENSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	52	2.9
50	100	48	2.7
0	100	43.8	2.4
90	50	40.9	2.3
50	50	39	2.2
0	50	36.8	2
50	25	35	1.9
0	25	33.9	1.9

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS21AFSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	54.7	3
50	100	49.9	2.8
0	100	45.2	2.5
90	50	42.7	2.4
50	50	40.6	2.3
0	50	38.3	2.1
50	25	36.5	2
0	25	35.4	2

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS21EFSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	54.7	3
50	100	49.9	2.8
0	100	45.2	2.5
90	50	42.7	2.4
50	50	40.6	2.3
0	50	38.3	2.1
50	25	36.5	2
0	25	35.4	2

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS21ANSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	74.2	2.6
50	100	69	2.4
0	100	63.4	2.2
90	50	56.6	2
50	50	54.2	1.9
0	50	51.4	1.8
50	25	47.9	1.7
0	25	46.5	1.6



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Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS21ENSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	74.2	2.6
50	100	69	2.4
0	100	63.4	2.2
90	50	56.6	2
50	50	54.2	1.9
0	50	51.4	1.8
50	25	47.9	1.7
0	25	46.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS21AFSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	75.6	2.6
50	100	69.4	2.4
0	100	63.4	2.2
90	50	57	2
50	50	54.3	1.9
0	50	51.4	1.8
50	25	47.9	1.7
0	25	46.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS21EFSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	75.6	2.6
50	100	69.4	2.4
0	100	63.4	2.2
90	50	57	2
50	50	54.3	1.9
0	50	51.4	1.8
50	25	47.9	1.7
0	25	46.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS21ANSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	102.1	2.4
50	100	93.7	2.2
0	100	84.9	2
90	50	74.7	1.8
50	50	70.9	1.7
0	50	66.6	1.6
50	25	61.3	1.5
0	25	59.2	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS21ENSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	102.1	2.4
50	100	93.7	2.2
0	100	84.9	2
90	50	74.7	1.8
50	50	70.9	1.7
0	50	66.6	1.6
50	25	61.3	1.5
0	25	59.2	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS21AFSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	105.1	2.5
50	100	94.6	2.3
0	100	84.9	2
90	50	75.6	1.8
50	50	71.2	1.7
0	50	66.6	1.6
50	25	61.4	1.5
0	25	59.2	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS21EFSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	105.1	2.5
50	100	94.6	2.3
0	100	84.9	2
90	50	75.6	1.8
50	50	71.2	1.7
0	50	66.6	1.6
50	25	61.4	1.5
0	25	59.2	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS23ANSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	30.9	5.2
50	100	30	5
0	100	29	4.8
90	50	28.7	4.8
50	50	28.2	4.7
0	50	27.6	4.6
50	25	27.8	4.6
0	25	27.4	4.6

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A6MS23ENSAA**

Apparent output power	0.6	kVA
Rated output current	1.6	A
Rated power output	0.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	30.9	5.2
50	100	30	5
0	100	29	4.8
90	50	28.7	4.8
50	50	28.2	4.7
0	50	27.6	4.6
50	25	27.8	4.6
0	25	27.4	4.6

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS23ANSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	36.8	3.4
50	100	34.9	3.2
0	100	32.8	3
90	50	32.6	3
50	50	31.6	2.9
0	50	30.4	2.8
50	25	31	2.8
0	25	30.2	2.8

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Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A8MS23ENSAA**

Apparent output power	1.1	kVA
Rated output current	2.8	A
Rated power output	0.4	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	36.8	3.4
50	100	34.9	3.2
0	100	32.8	3
90	50	32.6	3
50	50	31.6	2.9
0	50	30.4	2.8
50	25	31	2.8
0	25	30.2	2.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS23ANSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	51.9	2.9
50	100	48	2.7
0	100	43.8	2.4
90	50	40.9	2.3
50	50	39	2.2
0	50	36.8	2.1
50	25	35	2
0	25	33.9	1.9

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A8MS23ENSAA**

Apparent output power	1.8	kVA
Rated output current	4.8	A
Rated power output	0.75	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	51.9	2.9
50	100	48	2.7
0	100	43.8	2.4
90	50	40.9	2.3
50	50	39	2.2
0	50	36.8	2.1
50	25	35	2
0	25	33.9	1.9

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Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS23ANSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	72.1	2.5
50	100	66.4	2.3
0	100	60.3	2.1
90	50	55.5	1.9
50	50	52.8	1.8
0	50	49.7	1.7
50	25	46.8	1.6
0	25	45.2	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A5MS23ENSAA**

Apparent output power	2.9	kVA
Rated output current	7.5	A
Rated power output	1.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	72.1	2.5
50	100	66.4	2.3
0	100	60.3	2.1
90	50	55.5	1.9
50	50	52.8	1.8
0	50	49.7	1.7
50	25	46.8	1.6
0	25	45.2	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS23ANSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	103.3	2.5
50	100	94.9	2.3
0	100	86.2	2.1
90	50	75.4	1.8
50	50	71.5	1.7
0	50	67.3	1.6
50	25	61.7	1.5
0	25	59.6	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD11AMS23ENSAA**

Apparent output power	4.2	kVA
Rated output current	11	A
Rated power output	2.2	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	103.3	2.5
50	100	94.9	2.3
0	100	86.2	2.1
90	50	75.4	1.8
50	50	71.5	1.7
0	50	67.3	1.6
50	25	61.7	1.5
0	25	59.6	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS23ANSAA**

Apparent output power	6.5	kVA
Rated output current	17	A
Rated power output	3.7	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	144.5	2.2
50	100	132.1	2
0	100	119.2	1.8
90	50	104.6	1.6
50	50	98.7	1.5
0	50	92.2	1.4
50	25	84.2	1.3
0	25	80.9	1.3

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS23ENSAA**

Apparent output power	6.5	kVA
Rated output current	17	A
Rated power output	3.7	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	144.5	2.2
50	100	132.1	2
0	100	119.2	1.8
90	50	104.6	1.6
50	50	98.7	1.5
0	50	92.2	1.4
50	25	84.2	1.3
0	25	80.9	1.3

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS23ANSAA**

Apparent output power	9.5	kVA
Rated output current	25	A
Rated power output	5.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	221.7	2.3
50	100	198.8	2.1
0	100	176.9	1.9
90	50	132.2	1.4
50	50	122.9	1.3
0	50	113	1.2
50	25	97	1
0	25	92.1	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS23ENSAA**

Apparent output power	9.5	kVA
Rated output current	25	A
Rated power output	5.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	221.7	2.3
50	100	198.8	2.1
0	100	176.9	1.9
90	50	132.2	1.4
50	50	122.9	1.3
0	50	113	1.2
50	25	97	1
0	25	92.1	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD33AMS23ANSAA**

Apparent output power	12.6	kVA
Rated output current	33	A
Rated power output	7.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	317.8	2.5
50	100	280.5	2.2
0	100	246	2
90	50	183.3	1.5
50	50	169.2	1.3
0	50	154.5	1.2
50	25	131.8	1.1
0	25	124.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD33AMS23ENSAA**

Apparent output power	12.6	kVA
Rated output current	33	A
Rated power output	7.5	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	317.8	2.5
50	100	280.5	2.2
0	100	246	2
90	50	183.3	1.5
50	50	169.2	1.3
0	50	154.5	1.2
50	25	131.8	1.1
0	25	124.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD49AMS23ANSAA**

Apparent output power	18.7	kVA
Rated output current	49	A
Rated power output	11	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	416.2	2.2
50	100	361.1	1.9
0	100	304.2	1.6
90	50	232.6	1.2
50	50	209.6	1.1
0	50	183.9	1
50	25	157.4	0.8
0	25	144.8	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD49AMS23ENSAA**

Apparent output power	18.7	kVA
Rated output current	49	A
Rated power output	11	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	416.2	2.2
50	100	361.1	1.9
0	100	304.2	1.6
90	50	232.6	1.2
50	50	209.6	1.1
0	50	183.9	1
50	25	157.4	0.8
0	25	144.8	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD65AMS23ANSAA**

Apparent output power	24.8	kVA
Rated output current	65	A
Rated power output	15	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	508.4	2.1
50	100	447.2	1.8
0	100	386.9	1.6
90	50	276.7	1.1
50	50	251.9	1
0	50	225	0.9
50	25	186.4	0.8
0	25	173.2	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD65AMS23ENSAA**

Apparent output power	24.8	kVA
Rated output current	65	A
Rated power output	15	kW
Rated supply voltage	200-240	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	508.4	2.1
50	100	447.2	1.8
0	100	386.9	1.6
90	50	276.7	1.1
50	50	251.9	1
0	50	225	0.9
50	25	186.4	0.8
0	25	173.2	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A5MS43ANSAA**

Apparent output power	1.1	kVA
Rated output current	1.5	A
Rated power output	0.4	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	44	4
50	100	43.1	3.9
0	100	42.1	3.8
90	50	41	3.7
50	50	40.5	3.7
0	50	40	3.6
50	25	40.1	3.6
0	25	39.8	3.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A5MS43ENSAA**

Apparent output power	1.1	kVA
Rated output current	1.5	A
Rated power output	0.4	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	44	4
50	100	43.1	3.9
0	100	42.1	3.8
90	50	41	3.7
50	50	40.5	3.7
0	50	40	3.6
50	25	40.1	3.6
0	25	39.8	3.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A5MS43AFSAA**

Apparent output power	1.1	kVA
Rated output current	1.5	A
Rated power output	0.4	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	45.6	4.2
50	100	44.6	4.1
0	100	43.5	4
90	50	42.5	3.9
50	50	42	3.8
0	50	41.4	3.8
50	25	41.5	3.8
0	25	41.2	3.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD1A5MS43EFSAA**

Apparent output power	1.1	kVA
Rated output current	1.5	A
Rated power output	0.4	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	45.6	4.2
50	100	44.6	4.1
0	100	43.5	4
90	50	42.5	3.9
50	50	42	3.8
0	50	41.4	3.8
50	25	41.5	3.8
0	25	41.2	3.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A7MS43ANSAA**

Apparent output power	2.1	kVA
Rated output current	2.7	A
Rated power output	0.75	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	55.5	2.6
50	100	53.6	2.6
0	100	51.5	2.5
90	50	47.2	2.3
50	50	46.3	2.2
0	50	45.2	2.2
50	25	43.1	2.1
0	25	42.6	2

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A7MS43ENSAA**

Apparent output power	2.1	kVA
Rated output current	2.7	A
Rated power output	0.75	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	55.5	2.6
50	100	53.6	2.6
0	100	51.5	2.5
90	50	47.2	2.3
50	50	46.3	2.2
0	50	45.2	2.2
50	25	43.1	2.1
0	25	42.6	2

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A7MS43AFSAA**

Apparent output power	2.1	kVA
Rated output current	2.7	A
Rated power output	0.75	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	57.6	2.7
50	100	55.2	2.6
0	100	52.9	2.5
90	50	48.8	2.3
50	50	47.8	2.3
0	50	46.6	2.2
50	25	44.5	2.1
0	25	44	2.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD2A7MS43EFSAA**

Apparent output power	2.1	kVA
Rated output current	2.7	A
Rated power output	0.75	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	57.6	2.7
50	100	55.2	2.6
0	100	52.9	2.5
90	50	48.8	2.3
50	50	47.8	2.3
0	50	46.6	2.2
50	25	44.5	2.1
0	25	44	2.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A2MS43ANSAA**

Apparent output power	3.2	kVA
Rated output current	4.2	A
Rated power output	1.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	73.8	2.3
50	100	70.4	2.2
0	100	66.8	2.1
90	50	59.4	1.9
50	50	57.8	1.8
0	50	56	1.8
50	25	52.4	1.6
0	25	51.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A2MS43ENSAA**

Apparent output power	3.2	kVA
Rated output current	4.2	A
Rated power output	1.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	73.8	2.3
50	100	70.4	2.2
0	100	66.8	2.1
90	50	59.4	1.9
50	50	57.8	1.8
0	50	56	1.8
50	25	52.4	1.6
0	25	51.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD4A2MS43AFSAA**

Apparent output power	3.2	kVA
Rated output current	4.2	A
Rated power output	1.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	75.5	2.4
50	100	70.9	2.2
0	100	66.8	2.1
90	50	59.9	1.9
50	50	57.9	1.8
0	50	56	1.8
50	25	52.4	1.6
0	25	51.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300
Model name:	VFD4A2MS43EFSAA

Apparent output power	3.2	kVA
Rated output current	4.2	A
Rated power output	1.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	75.5	2.4
50	100	70.9	2.2
0	100	66.8	2.1
90	50	59.9	1.9
50	50	57.9	1.8
0	50	56	1.8
50	25	52.4	1.6
0	25	51.5	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD5A5MS43ANSAA**

Apparent output power	4.2	kVA
Rated output current	5.5	A
Rated power output	2.2	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	97.8	2.3
50	100	92.8	2.2
0	100	87.8	2.1
90	50	77.3	1.8
50	50	75	1.8
0	50	72.6	1.7
50	25	67.5	1.6
0	25	66.3	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD5A5MS43ENSAA**

Apparent output power	4.2	kVA
Rated output current	5.5	A
Rated power output	2.2	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	97.8	2.3
50	100	92.8	2.2
0	100	87.8	2.1
90	50	77.3	1.8
50	50	75	1.8
0	50	72.6	1.7
50	25	67.5	1.6
0	25	66.3	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD5A5MS43AFSAA**

Apparent output power	4.2	kVA
Rated output current	5.5	A
Rated power output	2.2	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	99	2.4
50	100	93.2	2.2
0	100	87.8	2.1
90	50	77.6	1.9
50	50	75.1	1.8
0	50	72.6	1.7
50	25	67.5	1.6
0	25	66.3	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD5A5MS43EFSAA**

Apparent output power	4.2	kVA
Rated output current	5.5	A
Rated power output	2.2	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	99	2.4
50	100	93.2	2.2
0	100	87.8	2.1
90	50	77.6	1.9
50	50	75.1	1.8
0	50	72.6	1.7
50	25	67.5	1.6
0	25	66.3	1.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A3MS43ANSAA**

Apparent output power	5.6	kVA
Rated output current	7.3	A
Rated power output	3	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	128.5	2.3
50	100	121	2.2
0	100	113.6	2
90	50	98.2	1.8
50	50	94.9	1.7
0	50	91.5	1.6
50	25	84.1	1.5
0	25	82.5	1.5

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A3MS43ENSAA**

Apparent output power	5.6	kVA
Rated output current	7.3	A
Rated power output	3	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	128.5	2.3
50	100	121	2.2
0	100	113.6	2
90	50	98.2	1.8
50	50	94.9	1.7
0	50	91.5	1.6
50	25	84.1	1.5
0	25	82.5	1.5

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A3MS43AFSAA**

Apparent output power	5.6	kVA
Rated output current	7.3	A
Rated power output	3	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	130.7	2.3
50	100	121.6	2.2
0	100	113.6	2
90	50	98.8	1.8
50	50	95.1	1.7
0	50	91.5	1.6
50	25	84.2	1.5
0	25	82.5	1.5

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD7A3MS43EFSAA**

Apparent output power	5.6	kVA
Rated output current	7.3	A
Rated power output	3	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	130.7	2.3
50	100	121.6	2.2
0	100	113.6	2
90	50	98.8	1.8
50	50	95.1	1.7
0	50	91.5	1.6
50	25	84.2	1.5
0	25	82.5	1.5

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD9A0MS43ANSAA**

Apparent output power	6.9	kVA
Rated output current	9	A
Rated power output	3.7	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	138.1	2
50	100	131.7	1.9
0	100	124.4	1.8
90	50	109	1.6
50	50	105.9	1.5
0	50	102.3	1.5
50	25	94.8	1.4
0	25	93	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD9A0MS43ENSAA**

Apparent output power	6.9	kVA
Rated output current	9	A
Rated power output	3.7	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	138.1	2
50	100	131.7	1.9
0	100	124.4	1.8
90	50	109	1.6
50	50	105.9	1.5
0	50	102.3	1.5
50	25	94.8	1.4
0	25	93	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD9A0MS43AFSAA**

Apparent output power	6.9	kVA
Rated output current	9	A
Rated power output	3.7	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	141.4	2.1
50	100	132.7	1.9
0	100	124.4	1.8
90	50	110	1.6
50	50	106.2	1.5
0	50	102.3	1.5
50	25	94.8	1.4
0	25	93	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD9A0MS43EFSAA**

Apparent output power	6.9	kVA
Rated output current	9	A
Rated power output	3.7	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	141.4	2.1
50	100	132.7	1.9
0	100	124.4	1.8
90	50	110	1.6
50	50	106.2	1.5
0	50	102.3	1.5
50	25	94.8	1.4
0	25	93	1.4

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD13AMS43ANSAA**

Apparent output power	9.9	kVA
Rated output current	13	A
Rated power output	5.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	193.4	2
50	100	181.9	1.8
0	100	169.5	1.7
90	50	131.4	1.3
50	50	126.6	1.3
0	50	121.2	1.2
50	25	107.6	1.1
0	25	104.9	1.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD13AMS43ENSAA**

Apparent output power	9.9	kVA
Rated output current	13	A
Rated power output	5.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	193.4	2
50	100	181.9	1.8
0	100	169.5	1.7
90	50	131.4	1.3
50	50	126.6	1.3
0	50	121.2	1.2
50	25	107.6	1.1
0	25	104.9	1.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD13AMS43AFSAA**

Apparent output power	9.9	kVA
Rated output current	13	A
Rated power output	5.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	196.7	2
50	100	182.9	1.9
0	100	169.5	1.7
90	50	132.2	1.3
50	50	126.9	1.3
0	50	121.2	1.2
50	25	107.6	1.1
0	25	104.9	1.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD13AMS43EFSAA**

Apparent output power	9.9	kVA
Rated output current	13	A
Rated power output	5.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	196.7	2
50	100	182.9	1.9
0	100	169.5	1.7
90	50	132.2	1.3
50	50	126.9	1.3
0	50	121.2	1.2
50	25	107.6	1.1
0	25	104.9	1.1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS43ANSAA**

Apparent output power	13	kVA
Rated output current	17	A
Rated power output	7.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	246.2	1.9
50	100	230.1	1.8
0	100	213.4	1.6
90	50	161.7	1.2
50	50	155.2	1.2
0	50	147.9	1.1
50	25	129.3	1
0	25	125.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS43ENSAA**

Apparent output power	13	kVA
Rated output current	17	A
Rated power output	7.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	246.2	1.9
50	100	230.1	1.8
0	100	213.4	1.6
90	50	161.7	1.2
50	50	155.2	1.2
0	50	147.9	1.1
50	25	129.3	1
0	25	125.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS43AFSAA**

Apparent output power	13	kVA
Rated output current	17	A
Rated power output	7.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	251.8	1.9
50	100	231.9	1.8
0	100	213.4	1.6
90	50	163.1	1.3
50	50	155.6	1.2
0	50	147.9	1.1
50	25	129.4	1
0	25	125.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD17AMS43EFSAA**

Apparent output power	13	kVA
Rated output current	17	A
Rated power output	7.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	251.8	1.9
50	100	231.9	1.8
0	100	213.4	1.6
90	50	163.1	1.3
50	50	155.6	1.2
0	50	147.9	1.1
50	25	129.4	1
0	25	125.8	1

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS43ANSAA**

Apparent output power	19.1	kVA
Rated output current	25	A
Rated power output	11	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	343.1	1.8
50	100	308.3	1.6
0	100	276	1.5
90	50	210.1	1.1
50	50	196.7	1
0	50	182.8	1
50	25	158.2	0.8
0	25	151.6	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS43ENSAA**

Apparent output power	19.1	kVA
Rated output current	25	A
Rated power output	11	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	343.1	1.8
50	100	308.3	1.6
0	100	276	1.5
90	50	210.1	1.1
50	50	196.7	1
0	50	182.8	1
50	25	158.2	0.8
0	25	151.6	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS43AFSAA**

Apparent output power	19.1	kVA
Rated output current	25	A
Rated power output	11	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	347	1.8
50	100	309.5	1.6
0	100	276	1.5
90	50	211	1.1
50	50	197	1
0	50	182.8	1
50	25	158.3	0.8
0	25	151.6	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD25AMS43EFSAA**

Apparent output power	19.1	kVA
Rated output current	25	A
Rated power output	11	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	347	1.8
50	100	309.5	1.6
0	100	276	1.5
90	50	211	1.1
50	50	197	1
0	50	182.8	1
50	25	158.3	0.8
0	25	151.6	0.8

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD32AMS43ANSAA**

Apparent output power	24.4	kVA
Rated output current	32	A
Rated power output	15	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	405.5	1.7
50	100	365	1.5
0	100	324.6	1.3
90	50	245.4	1
50	50	228.8	0.9
0	50	210.6	0.9
50	25	180.9	0.7
0	25	172	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD32AMS43ENSAA**

Apparent output power	24.4	kVA
Rated output current	32	A
Rated power output	15	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	405.5	1.7
50	100	365	1.5
0	100	324.6	1.3
90	50	245.4	1
50	50	228.8	0.9
0	50	210.6	0.9
50	25	180.9	0.7
0	25	172	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD32AMS43AFSAA**

Apparent output power	24.4	kVA
Rated output current	32	A
Rated power output	15	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	411.9	1.7
50	100	367	1.5
0	100	324.6	1.3
90	50	247	1
50	50	229.3	0.9
0	50	210.6	0.9
50	25	181.1	0.7
0	25	172	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD32AMS43EFSAA**

Apparent output power	24.4	kVA
Rated output current	32	A
Rated power output	15	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	411.9	1.7
50	100	367	1.5
0	100	324.6	1.3
90	50	247	1
50	50	229.3	0.9
0	50	210.6	0.9
50	25	181.1	0.7
0	25	172	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD38AMS43ANSAA**

Apparent output power	29	kVA
Rated output current	38	A
Rated power output	18.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	440.1	1.5
50	100	407.9	1.4
0	100	373.2	1.3
90	50	266.7	0.9
50	50	253.1	0.9
0	50	237.4	0.8
50	25	199.4	0.7
0	25	191.6	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD38AMS43ENSAA**

Apparent output power	29	kVA
Rated output current	38	A
Rated power output	18.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	440.1	1.5
50	100	407.9	1.4
0	100	373.2	1.3
90	50	266.7	0.9
50	50	253.1	0.9
0	50	237.4	0.8
50	25	199.4	0.7
0	25	191.6	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD38AMS43AFSAA**

Apparent output power	29	kVA
Rated output current	38	A
Rated power output	18.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	451.9	1.6
50	100	411.5	1.4
0	100	373.2	1.3
90	50	269.7	0.9
50	50	254	0.9
0	50	237.4	0.8
50	25	199.6	0.7
0	25	191.6	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD38AMS43EFSAA**

Apparent output power	29	kVA
Rated output current	38	A
Rated power output	18.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	451.9	1.6
50	100	411.5	1.4
0	100	373.2	1.3
90	50	269.7	0.9
50	50	254	0.9
0	50	237.4	0.8
50	25	199.6	0.7
0	25	191.6	0.7

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD45AMS43ANSAA**

Apparent output power	34.3	kVA
Rated output current	45	A
Rated power output	22	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	511.5	1.5
50	100	471.1	1.4
0	100	428.4	1.3
90	50	303.6	0.9
50	50	286.8	0.8
0	50	267.8	0.8
50	25	223	0.7
0	25	213.7	0.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD45AMS43ENSAA**

Apparent output power	34.3	kVA
Rated output current	45	A
Rated power output	22	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	511.5	1.5
50	100	471.1	1.4
0	100	428.4	1.3
90	50	303.6	0.9
50	50	286.8	0.8
0	50	267.8	0.8
50	25	223	0.7
0	25	213.7	0.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD45AMS43AFSAA**

Apparent output power	34.3	kVA
Rated output current	45	A
Rated power output	22	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	528.1	1.5
50	100	476.3	1.4
0	100	428.4	1.3
90	50	307.8	0.9
50	50	288.1	0.8
0	50	267.8	0.8
50	25	223.4	0.7
0	25	213.7	0.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series: **MS300**Model name: **VFD45AMS43EFSAA**

Apparent output power	34.3	kVA
Rated output current	45	A
Rated power output	22	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	11	W
Maximum operating temperature	40	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	528.1	1.5
50	100	476.3	1.4
0	100	428.4	1.3
90	50	307.8	0.9
50	50	288.1	0.8
0	50	267.8	0.8
50	25	223.4	0.7
0	25	213.7	0.6

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300 (IP20 Plate)
Model name:	VFD2A7MS43PNSAA
Derivative model:	VFD2A7MS43PNSART

Apparent output power	2.1	kVA
Rated output current	2.7	A
Rated power output	0.75	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	55.5	2.64
50	100	53.6	2.55
0	100	51.5	2.45
90	50	47.2	2.25
50	50	46.3	2.2
0	50	45.2	2.15
50	25	43.1	2.05
0	25	42.6	2.03

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300 (IP20 Plate)
Model name:	VFD4A2MS43PNSAA
Derivative model:	VFD4A2MS43PNSART

Apparent output power	3.2	kVA
Rated output current	4.2	A
Rated power output	1.5	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	5	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	73.8	2.31
50	100	70.4	2.2
0	100	66.8	2.09
90	50	59.4	1.86
50	50	57.8	1.81
0	50	56	1.75
50	25	52.4	1.64
0	25	51.5	1.61

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300 (IP20 Plate)
Model name:	VFD5A5MS43PNSAA
Derivative model:	VFD5A5MS43PNSART

Apparent output power	4.2	kVA
Rated output current	5.5	A
Rated power output	2.2	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	97.8	2.33
50	100	92.8	2.21
0	100	87.8	2.09
90	50	77.3	1.84
50	50	75	1.78
0	50	72.6	1.73
50	25	67.5	1.61
0	25	66.3	1.58

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300 (IP20 Plate)
Model name:	VFD7A3MS43PNSAA
Derivative model:	VFD7A3MS43PNSART

Apparent output power	5.6	kVA
Rated output current	7.3	A
Rated power output	3	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	128.5	2.29
50	100	121	2.16
0	100	113.6	2.03
90	50	98.2	1.75
50	50	94.9	1.69
0	50	91.5	1.63
50	25	84.1	1.5
0	25	82.5	1.47

Energy Efficiency Report

Drive efficiency according to IEC 61800-9-2

Efficiency level:

IE2

Series:	MS300 (IP20 Plate)
Model name:	VFD9A0MS43PNSAA
Derivative model:	VFD9A0MS43PNSART

Apparent output power	6.9	kVA
Rated output current	9	A
Rated power output	3.7	kW
Rated supply voltage	380-480	V
Rated supply frequency	50/60	Hz
Standby loss	8	W
Maximum operating temperature	50	°C

Frequency (%)	Current (%)	Power loss (W)	Relative Power loss (%)
90	100	138.1	2
50	100	131.7	1.91
0	100	124.4	1.8
90	50	109	1.58
50	50	105.9	1.53
0	50	102.3	1.48
50	25	94.8	1.37
0	25	93	1.35