MWF
MECHATRONICS

CRUISER

ELECTRIC MOBILITY LINE

SUMMARY

MPV series

IPM motors for traction

MWF MECHATRONICS

CSRMPV04.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	10	A
Maximum current	17,2	A
Nominal power	4	kW
Maximum power	6,88	kW
Nominal torque	8,44	Nm
Maximum torque	10,06	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV06.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	15	A
Maximum current	25,8	A
Nominal power	6	kW
Maximum power	10,32	kW
Nominal torque	12,67	Nm
Maximum torque	15,08	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs		-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV08.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	20	A
Maximum current	34,4	A
Nominal power	8	kW
Maximum power	13,76	kW
Nominal torque	16,89	Nm
Maximum torque	20,11	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs		-
Moment of inertia		m4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV10.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	25	A
Maximum current	43	A
Nominal power	10	kW
Maximum power	17,2	kW
Nominal torque	21,11	Nm
Maximum torque	25,14	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV12.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	30	A
Maximum current	51,6	A
Nominal power	12	kW
Maximum power	20,64	kW
Nominal torque	25,33	Nm
Maximum torque	30,17	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV14.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	35	A
Maximum current	60,2	A
Nominal power	14	kW
Maximum power	24,08	kW
Nominal torque	29,56	Nm
Maximum torque	35,19	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV16.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	40	A
Maximum current	68,8	A
Nominal power	16	kW
Maximum power	27,52	kW
Nominal torque	23,38	Nm
Maximum torque	40,22	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV18.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	45	A
Maximum current	77,4	A
Nominal power	18	kW
Maximum power	30,96	kW
Nominal torque	38	Nm
Maximum torque	45,25	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs		-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV20.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	50	A
Maximum current	86	A
Nominal power	20	kW
Maximum power	34,4	kW
Nominal torque	42,22	Nm
Maximum torque	50,28	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs		-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV22.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	55	A
Maximum current	94,6	A
Nominal power	22	kW
Maximum power	37,84	kW
Nominal torque	46,44	Nm
Maximum torque	55,3	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV24.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	60	A
Maximum current	103,2	A
Nominal power	24	kW
Maximum power	41,28	kW
Nominal torque	50,67	Nm
Maximum torque	60,33	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs		-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

CSRMPV27,3.01A

Description:

IPM (Internal Permanent Magnet) motor developed for high- performance electric vehicle traction. The V-shape design brings extra efficiency by enabling the motor to also operate as a reluctance machine, improving performance especially in high speeds.

Characteristic	Value	Unit
Voltage	400	V
Nominal current	68,25	A
Maximum current	117,39	A
Nominal power	27,3	kW
Maximum power	46,96	kW
Nominal torque	57,63	Nm
Maximum torque	68,63	Nm
Torque constant	0,84	A
Nominal speed	4500	rpm
Maximum speed	6500	rpm
Maximum temperature	150	°C
Operating temperature (ambient temp. = 40°C)	85	°C
Number of phases	3	-
Number of pole pairs	4	-
Moment of inertia		m^4
Damping coefficient		Nmm s /rad
Static friction		Nmm

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MPS series

Surface mounted PMSM for motion control

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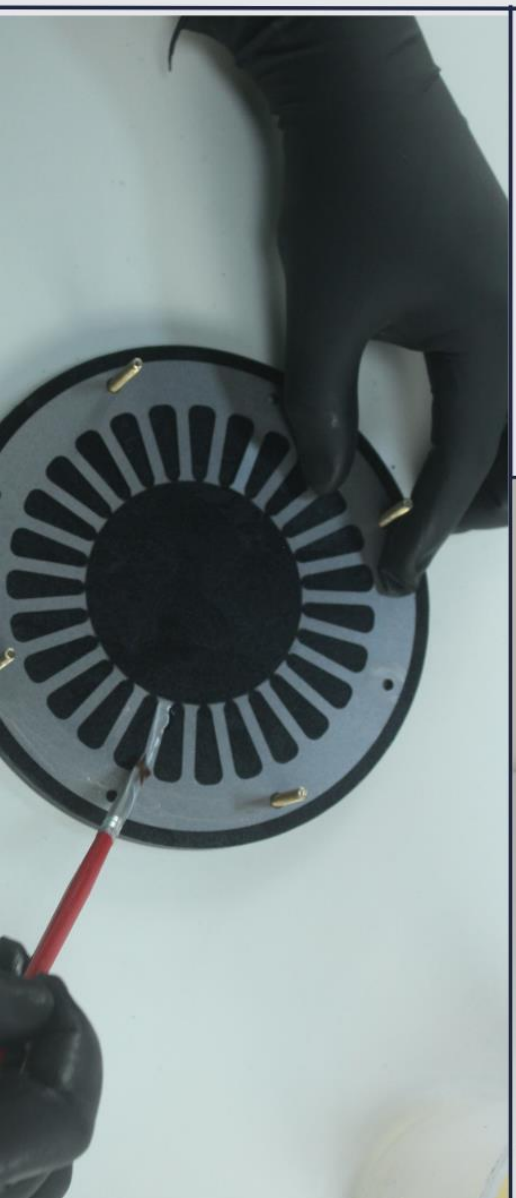

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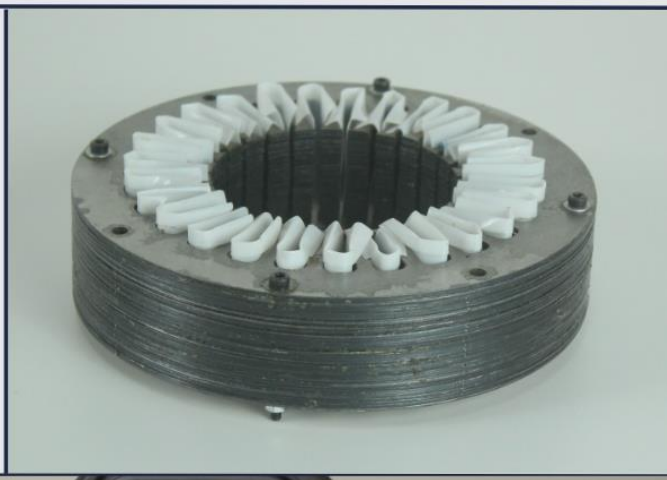

CSRMPS83.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	1,73	A
Maximum current	2,97	A
Nominal power	83	W
Maximum power	142,8	
Nominal torque	4	Nm
Maximum torque	4,2	Nm
Torque constant	1,15	Nm/A
Nominal speed	200	rpm
Maximum speed	300	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	
Number of pole pairs	15	

CSRMPS200.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	4,17	A
Maximum current	7,17	A
Nominal power	200	W
Maximum power	344	W
Nominal torque	6,2	Nm
Maximum torque	8,0	Nm
Torque constant	1,49	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS400.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	8,33	A
Maximum current	14,33	A
Nominal power	400	W
Maximum power	688	W
Nominal torque	12,4	Nm
Maximum torque	16	Nm
Torque constant	1,49	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS600.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	12,5	A
Maximum current	21,5	A
Nominal power	600	W
Maximum power	1032	W
Nominal torque	18,6	Nm
Maximum torque	24	Nm
Torque constant	1,49	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS800.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	16,67	A
Maximum current	28,67	A
Nominal power	800	W
Maximum power	1376	W
Nominal torque	24,8	Nm
Maximum torque	32	Nm
Torque constant	1,49	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS1000.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	48	V
Nominal current	20,83	A
Maximum current	35,83	A
Nominal power	1000	W
Maximum power	1720	W
Nominal torque	31	Nm
Maximum torque	40	Nm
Torque constant	1,49	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS1200.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	12,5	A
Maximum current	21,5	A
Nominal power	1200	W
Maximum power	2064	W
Nominal torque	37,2	Nm
Maximum torque	47,99	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS1400.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	14,58	A
Maximum current	25,08	A
Nominal power	1400	W
Maximum power	2408	W
Nominal torque	43,4	Nm
Maximum torque	55,99	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS1600.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	16,67	A
Maximum current	28,67	A
Nominal power	1600	W
Maximum power	2752	W
Nominal torque	49,6	Nm
Maximum torque	63,98	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS1800.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	18,75	A
Maximum current	32,25	A
Nominal power	1800	W
Maximum power	3096	W
Nominal torque	55,8	Nm
Maximum torque	71,98	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS2000.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	20,83	A
Maximum current	35,83	A
Nominal power	2000	W
Maximum power	3440	W
Nominal torque	62	Nm
Maximum torque	79,98	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS2200.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	22,92	A
Maximum current	39,42	A
Nominal power	2200	W
Maximum power	3784	W
Nominal torque	68,2	Nm
Maximum torque	51,15	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS2400.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	25	A
Maximum current	43	A
Nominal power	2400	W
Maximum power	4128	W
Nominal torque	74,4	Nm
Maximum torque	87,98	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS2600.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	27,08	A
Maximum current	45,58	A
Nominal power	2600	W
Maximum power	4472	W
Nominal torque	80,6	Nm
Maximum torque	103,97	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS2800.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	29,17	A
Maximum current	50,17	A
Nominal power	2800	W
Maximum power	4816	W
Nominal torque	86,8	Nm
Maximum torque	111,97	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	

CSRMPS3000.01A

Description:

High-performance Permanent Magnet Synchronous Motor. Ideal for sophisticated motion control applications. Ready for IIoT and other modern industry concepts. Flanged hollow shaft for easy coupling.

Characteristic	Value	Unit
Voltage	96	V
Nominal current	31,25	A
Maximum current	53,75	A
Nominal power	3000	W
Maximum power	5160	W
Nominal torque	93	Nm
Maximum torque	119,97	Nm
Torque constant	2,98	Nm/A
Nominal speed	300	rpm
Maximum speed	400	rpm
Maximum temperature	80	°C
Operating temperature (ambient temp. = 40°C)	74	°C
Number of phases	3	