



Three-phase asynchronous motors

with slip-ring rotor
for duty types S3, S4/S5
(intermittent periodic duty)

SENSE EXPERIENCE
EXPERIENCE VISION





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Drives designed for crane and metallurgical plant applications

Powerful start-up

Slip-ring motors are still used in many branches of industry. It is their properties which are decisive in determining the efficiency of production. VEM three-phase motors with slip-ring rotor combine the general benefits of this drive solution with VEM's extraordinary manufacturing know-how. They

- › can be tailored precisely to customer applications thanks to their broad scope of adaptability
- › are especially designed for heavy starting
- › are based on unique technological competence and experience
- › have been proven in international use over several decades
- › are especially suitable where mains supplies are unstable
- › are available in two versions; the dimensions and frame sizes are based on IEC 72
- › generally provide level-N interference suppression according to DIN VDE 0875/DIN EN 55014

Design details

The SPER/S11R series are designed as classic IEC/DIN series, i.e. with mounting dimensions and performances in line with DIN 42679. The SPR/S10R series are conceived with more progressive performance assignments compared to the DIN standards, offering outputs up to two steps higher from the same frame size.

The motors are equipped with radial fans in plastic or cast aluminium alloy, which cool the motor independently of the latter's direction of rotation (IC 411 to DIN EN 60034-6).

Upon request, the following motor protection variants are possible:

- › motor protection with PTC thermistor sensors in the stator winding
- › bi-metal temperature sensors as NC and NO contacts in the stator winding
- › resistance thermometer for winding or bearing temperature monitoring
- › space heater to prevent the formation of condensation inside the motor.



Crane hoisting gear is a typical application for three-phase asynchronous motors with slip-ring rotor for duty types S3, S4/S5.

Series	SPEH /S11H 132 – 315 for intermittent periodic duty S3 acc. to DIN 42 681
Sizes	132 to 315
Power range	3.3 – 315 kW
Type of protection	IP 54 or IP 55 acc. to DIN EN 60034-5
Type of construction	IM B3, IM B35, IM B5 and derived types of construction acc. to DIN EN 60034-7
Duty type	S3, S4/5
Type of cooling	IC 411 acc. to DIN EN 60034-6
Transnorm series	SPH 132 – 280 for intermittent periodic duty S3

4-pole Design 1500 rpm			6-pole Design 1000 rpm			8-pole Design 750 rpm		
P	DIN 42679	Progressive	P	DIN 42679	Progressive	P	DIN 42679	Progressive
[kW]			[kW]			[kW]		
6.3	SPEH 132 M4	SPH 132 M4	4.5	SPEH 132 M6	SPH 132 M6	3.3	SPEH 132 M8	SPH 132 M8
7.5	SPEH 132 MX4	SPH 132 MX4	5.5	SPEH 132 MX6	SPH 132 MX6	4.3	SPEH 132 MX8	SPH 132 MX8
10.0	SPEH 160 M4	SPH 132 L4	7.0	SPEH 160 M6	SPH 160 M6	5.3	SPEH 160 M8	SPH 132 L8
14.5	SPEH 160 L4	SPH 160 M4	10.0	SPEH 160 L6	SPH 160 M6	7.2	SPEH 160 L8	SPH 160 M8
19.5	SPEH 180 L4	SPH 160 L4	14.5	SPEH 180 L6	SPH 160 L6	10.0	SPEH 180 L8	SPH 160 L8
24.0	SPEH 200 L4	SPH 180 M4	20.0	SPEH 200 L6	SPH 180 M6	14.5	SPEH 200 L8	SPH 180 M8
28.0	SPEH 200 LX4	SPH 180 L4	25.0	SPEH 225 M6	SPH 180 L6	20.0	SPEH 225 M8	SPH 180 L8
39.0	SPEH 225 M4	SPH 200 M4	30.0	SPEH 225 MX6	SPH 200 M6	25.0	SPEH 225 MX8	SPH 200 M8
48.0	SPEH 250 M4	SPH 200 L4	37.0	SPEH 250 M6	S10H 225 M6	30.0	SPEH 250 M8	SPH 225 M8
58.0	SPEH 250 MX4	SPH 225 M4	45.0	S11H 250 MX6	S10H 250 M6	37.0	S11H 250 MX8	S10H 250 M8
75.0	S11H 280 S4	S10H 250 M4	60.0	S11H 280 S6	S10H 250 MX6	50.0	S11H 280 S8	S10H 250 L8
95.0	S11H 280 M4	S10H 250 L4	75.0	S11H 280 M6	S10H 280 M6	63.0	S11H 280 M8	S10H 280 M8
115	S11H 315 S4	S10H 280 M4	100	S11H 315 S6	S10H 280 L6	80.0	S11H 315 S8	S10H 280 L8
140	S11H 315 M4	S10H 280 L4	120	S11H 315 M6		100	S11H 315 M8	
165	S11H 315 MX4		140	S11D 315 MX6		115	S11H 315 MX8	
200	S11H 315 MY4		170	S11D 315 MY6		140	S11H 315 MY8	
250	S11H 315 LX4		210	S11D 315 LX6		170	S11H 315 LX8	
315	S11H 315 LY4							

10-pole Design 600 rpm			12-pole Design 500 rpm		
16.0	SPEH 225 M10		10.0	SPEH 225 M12	
18.0	SPEH 225 MX10	SPH 200 M10	13.0	SPEH 225 MX12	SPH 200 M12
23.0	SPEH 250 M10	SPH 225 M10	17.0	SPEH 250 M12	SPH 225 M12
28.0	S11H 250 MX10	S10H 250 M10	23.0	S11H 250 MX12	S10H 250 M12
37.0	S11H 280 S10	S10H 250 MX10	27.0	S11H 280 S12	S10H 250 MX12
48.0	S11H 280 M10	S10H 250 L10	33.0	S11H 280 M12	S10H 280 M12
60.0	S11H 315 S10	S10H 280 L10	40.0	S11H 315 S12	S10H 280 L12
75.0	S11H 315 M10		46.0	S11H 315 M12	
90.0	S11D 315 MX10		53.0	S11D 315 MX12	
100	S11D 315 MY10		60.0	S11D 315 MY12	
115	S11D 315 LX10		65.0	S11D 315 LX12	

Please refer to our catalogues for technical details. The catalogues are available in printed or in digital version on CD-ROM. They are also available in the internet.



