

# Cooling Tower

Direct Drive System  
Commercial Catalog  
European Market

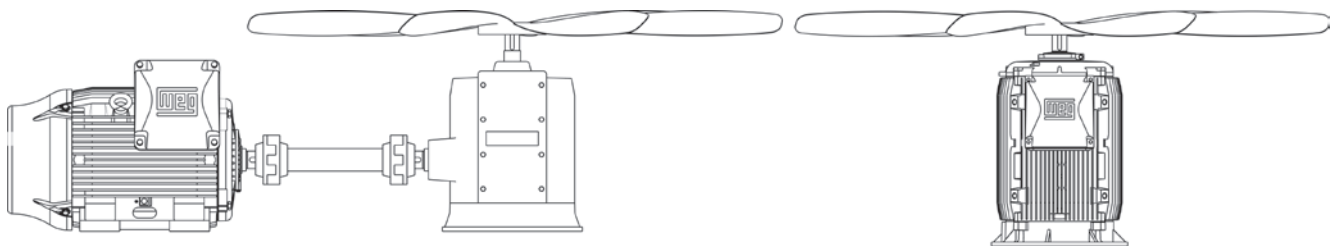


Motors | Automation | Energy | Transmission & Distribution | Coatings

## Cooling Tower Direct Drive System

In order to provide cooling towers with greater reliability and efficiency, WEG developed the Cooling Tower Direct Drive System to replace conventional cooling tower ventilation systems – formed by motor, driving shaft and gearbox – reducing mechanical losses, which enables higher performances.

The rotor of the Cooling Tower Direct Drive features permanent magnets which ensure high performance levels with high torque, even at low speeds. This new motor, since it does not require a gearbox, eliminates tower water contamination by the gearbox oil and presents great advantages to the system, such as lower consumption with the air flow control, fewer shutdowns for maintenance and lower noise.



### Conventional System

The conventional tower ventilation system requires more mechanical repairs due to:

- Gearbox faults
- Oil contamination and leaks
- Mechanical misalignment
- Excessive vibrations

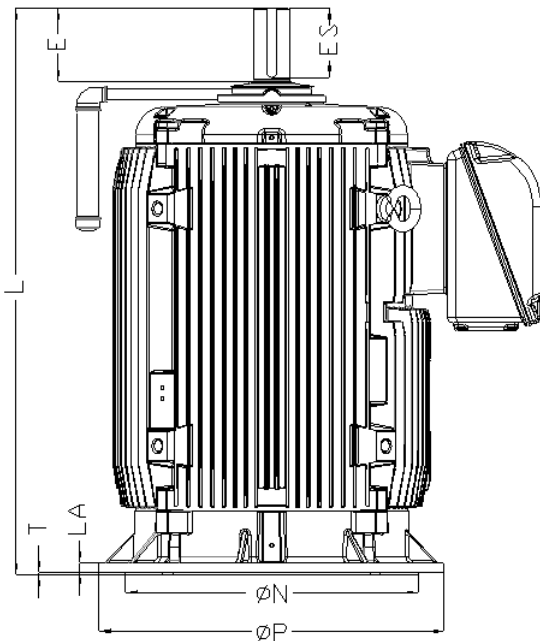
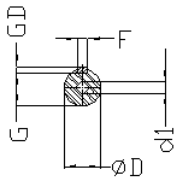
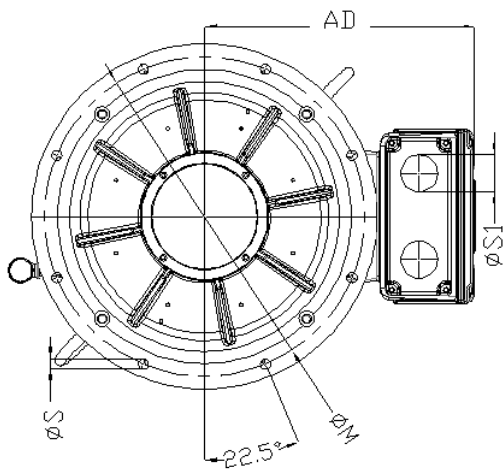
### New System

#### Benefits

- Greater power efficiency
- Greater coupling efficiency
- Greater safety and reliability
- Less noise
- Less maintenance
- Reduction of mechanical losses by eliminating gearbox and driving shaft



# Technical Data



Frame	Output cv (kW)	Speed (RPM)	Rated Torque (Nm)	Rated Current (A)	Efficiency $\eta$ (%)	Power Factor (cos $\phi$ )
280S/M	25(18.5)	320	552	36,8	93,4	0,97
280S/M	40(30)	320	900	58,0	94,4	0,97
315S/M	50(37)	350	1010	82,4	94,5	0,95
315S/M	75(55)	350	1501	104,8	94,8	0,97
355M/L	50(37)	200	1768	83,8	94,0	0,90
355M/L	60(45)	200	2150	101,5	94,0	0,90
355M/L	75(55)	200	2628	108,7	94,0	0,91
355M/L	100(75)	200	3583	142,6	94,3	0,91
355M/L	100(75)	160	4479	151,4	92,5	0,89
355A/B	125(90)	160	5375	176,0	92,8	0,87
400	150(110)	160	6569	234,6	93,0	0,85
450	175(125)	135	8847	258,2	93,4	0,79
450	200(150)	135	10616	325,4	93,6	0,79

Rated current 380 V

Frame	Shaft end						Frame		Terminal Box		Flange					
	D	d1	E	ES	F	G	GD	L	LA	AD	S1	ØM	ØN	ØP	S	T
280S/M	75	M20	140	125	20	67,5	12	944,5	18	442	2xRWG 2"	500	450	550	19	5
315S/M								1093	16	525		600	550	660	24	
355M/L	85	M30	170	160	22	76	14	1297	22	609	2xRWG 3"	740	680	800	25	6
355A/B								1492								
400A/B	110	M24	210	170	28	100	16	1869	35	775	2xRWG 3"	940	880	1000		
450A/B	130		250	200	32	119	18	2330	34			1080	1000	1150		

Dimensions in millimeters (mm)



For WEG's worldwide  
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The values shown are subject to change without prior notice.  
The information contained is reference values.