



Horizontal
or vertical
mountings
available



General

Series CT covers self ventilated machines with built on air to air heat exchanger. The heat exchanger consists of a bank of straight cooling tubes (Aluminium tubes are normally used. Different materials may be used upon request.) Ambient air is forced through the tubes by a shaft mounted fan. Two internal shaft-mounted fans circulate the primary (internal) cooling air through the active parts of the machine and the tube bank (see figure).

Degree of Protection is IP 44. For wound rotor machines the degree of protection is IP 45.

Upon Request machines complying with US NEMA Standards can also be supplied.

Mounting Arrangements

Our standard for this machine is IM 1001. Other types of mounting arrangements are available upon request. Use IEC standard coding to specify desired mounting type.

Installation in Hazardous Areas

These machines may also be supplied for installation in Hazardous Areas. Protection conforms with Ex e type protection. Machines may also be supplied to conform with Ex nA or Exp II T3/T4 and equivalent type protection. Operating environment should be stated at time of order (class, zone, type of protection, etc...)

Insulation system and stator winding

Micasystem[®], our class F insulating system, is used on all form-wound stators through the entire voltage range. For more details see the MICASYSTEM[®] flyer or contact our sales office.

Rotor Cage

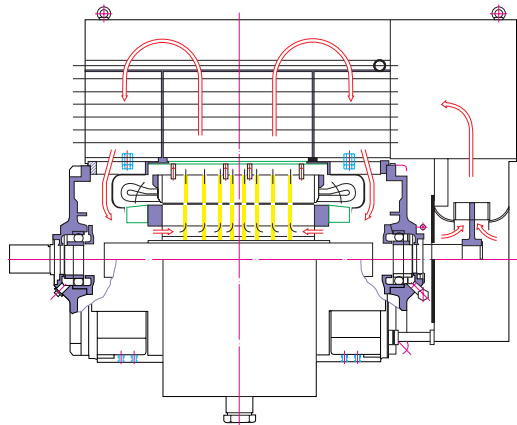
As a standard we propose a fabricated aluminum cage which ensures high reliability. Flexible bar shape design allows us to accommodate most customer requirements. Copper or copper alloy cages are also used when requested for special applications. Wound rotors may also be supplied upon request. For further details contact our sales office.



The Electric Motors and Generators Business Unit is certified

ISO
9001

ISO
14001



Power rating:

150 - 15,000 kW

Voltage:

up to 15 kV

Frequency:

50 Hz, 60 Hz, and variable frequency with converter

Mass:

1.380 - 120,000 kg

Frame size:

315 mm to 1000 mm (*)

Number of poles:

2 - 36

The following table shows typical values per size range for the series CT/CTV machines in 2 - 4 - 6 - 8 pole configuration. Details on larger machines are available from our Sales Office. (See address below)

N° OF POLES	kW	r/min	efficiency			power factor			rated torque	4 x WR ²	Mass	Bearings
			4/4	3/4	2/4	4/4	3/4	2/4				
2 POLE												
315	280	2976	94.7	94.4	93.3	0.90	0.89	0.83	898	15	1775	RG
355	560	2977	95.8	95.6	94.9	0.90	0.89	0.84	1796	24	2550	RG
400	800	2979	96.2	96.1	95.4	0.90	0.89	0.85	2564	40	3675	RG
450	1250	2982	96.1	95.9	95.1	0.90	0.89	0.86	4003	78	5100	SN
500	2000	2981	96.6	96.3	95.6	0.90	0.89	0.86	6407	125	6700	SN
560	2800	2984	96.8	96.5	95.7	0.90	0.89	0.87	8960	233	8700	SF
630	4000	2985	96.9	96.6	95.8	0.90	0.89	0.88	12796	330	13000	SF
4 POLE												
315	250	1480	94.6	94.4	93.5	0.89	0.87	0.80	1613	19	1700	RG
355	450	1481	95.4	95.3	94.9	0.89	0.88	0.85	2902	40	2450	RG
400	710	1483	95.9	95.8	95.5	0.89	0.88	0.85	4572	72	3400	RG
450	1120	1486	95.8	95.6	94.8	0.89	0.88	0.83	7197	120	4450	RG
500	1800	1488	96.4	96.2	95.5	0.89	0.88	0.84	11552	229	6050	RG
560	2800	1489	96.7	96.6	95.9	0.89	0.88	0.87	17957	404	8200	RG
630	4000	1489	96.8	96.7	96.2	0.89	0.88	0.87	25653	712	11400	SN
710	5600	1490	97.0	96.8	96.2	0.89	0.88	0.86	35890	1310	17600	SF
800	8000	1490	97.2	97.0	96.2	0.89	0.88	0.87	51271	2270	22000	SF
6 POLE												
355	355	984	94.2	94.1	93.8	0.88	0.87	0.83	3445	52	2525	RG
400	560	985	94.6	94.5	93.9	0.88	0.86	0.80	5429	94	3425	RG
450	800	988	95.4	95.3	94.4	0.87	0.84	0.77	7732	159	4450	RG
500	1250	990	96.1	96.0	95.4	0.88	0.86	0.81	12057	295	6200	RG
560	1800	989	96.2	96.0	95.5	0.88	0.87	0.84	17380	462	7500	RG
630	2500	990	96.6	96.5	96.2	0.88	0.87	0.85	24114	862	10800	RG
710	4000	991	96.8	96.7	96.1	0.88	0.87	0.84	38544	1590	16500	RG
800	5600	993	96.9	96.6	95.9	0.88	0.87	0.86	53853	2600	21200	SN
8 POLE												
355	225	738	93.9	93.8	92.8	0.82	0.78	0.69	2911	58	2650	RG
400	400	739	94.1	94.0	92.9	0.83	0.79	0.70	5169	102	3350	RG
450	560	739	94.8	94.7	93.9	0.83	0.80	0.73	7236	168	4350	RG
500	900	740	95.3	95.2	94.5	0.85	0.83	0.76	11614	293	5825	RG
560	1250	742	95.8	95.7	94.9	0.86	0.83	0.76	16087	554	8400	RG
630	2000	742	96.0	95.9	95.4	0.86	0.84	0.79	25739	1018	10725	RG
710	3550	743	96.6	96.4	95.9	0.86	0.85	0.80	45626	1745	15660	RG
800	4500	743	96.7	96.5	96.0	0.86	0.85	0.81	57836	2800	17750	SN

(*) Larger sizes also available

Table applies to machines with the following characteristics:

Rated Voltage: **6 kV ± 5%**
 Frequency: **50 Hz ± 5%**
 Ambient Temperature: **40°C**
 Altitude: **< /= 1000 m above sea level**

Insulation Temperature Class: **F/B**
 Degree of Protection: **IP 44**
 Mounting Arrangement: **IM 1001**
 Aluminium Cage Rotor
 Cooling: **IC 611**

Bearings: see table
R = Rolling Bearing
S = Sleeve Bearing
N = Self Lubricated (oil)
F = Forced Lubricated (oil)
G = Grease Lubricated