

Table 3-30 1FT6134 natural cooling

1FT6134					
Technical data	Code	Units	-6AB71	-6AC71	
Engineering data					
Rated speed	n_N	rpm	1500	2000	
Number of poles	2p		6	6	
Rated torque (100 K)	$M_{N(100\text{ K})}$	Nm	75	65	
Rated current (100K)	I_N	A	24	27	
Stall torque (60K)	$M_{0(60\text{ K})}$	Nm	79	79	
Stall torque (100K)	$M_{0(100\text{ K})}$	Nm	95	95	
Stall current (60K)	$I_{0(60\text{ K})}$	A	21.7	30	
Stall current (100K)	$I_{0(100\text{ K})}$	A	27	36	
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm^2	625	625	
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm^2	547	547	
Optimum operating point					
Optimum speed	n_{opt}	rpm	1500	2000	
Optimum power	P_{opt}	kW	11.8	13.6	
Limiting data					
Max. permissible speed (mech.)	n_{max}	rpm	3600	3600	
Maximum torque	M_{max}	Nm	316	316	
Maximum current	I_{max}	A	125	170	
Physical constants					
Torque constant					
Voltage constant	k_T	Nm/A	3.54	2.61	
Winding resistance at 20 °C	k_E	V/1000 rpm	228	168	
Rotating field inductance	R_{ph}	Ohm	0.17	0.094	
Electrical time constant	L_D	mH	5.8	3.1	
Shaft torsional stiffness	T_{el}	ms	34	33	
Mechanical time constant	α_t	Nm/rad	234000	234000	
Thermal time constant	T_{mech}	ms	2.2	2.3	
Weight with brake	T_{th}	min	70	70	
Weight without brake	m	kg	110	110	
	m	kg	100	100	

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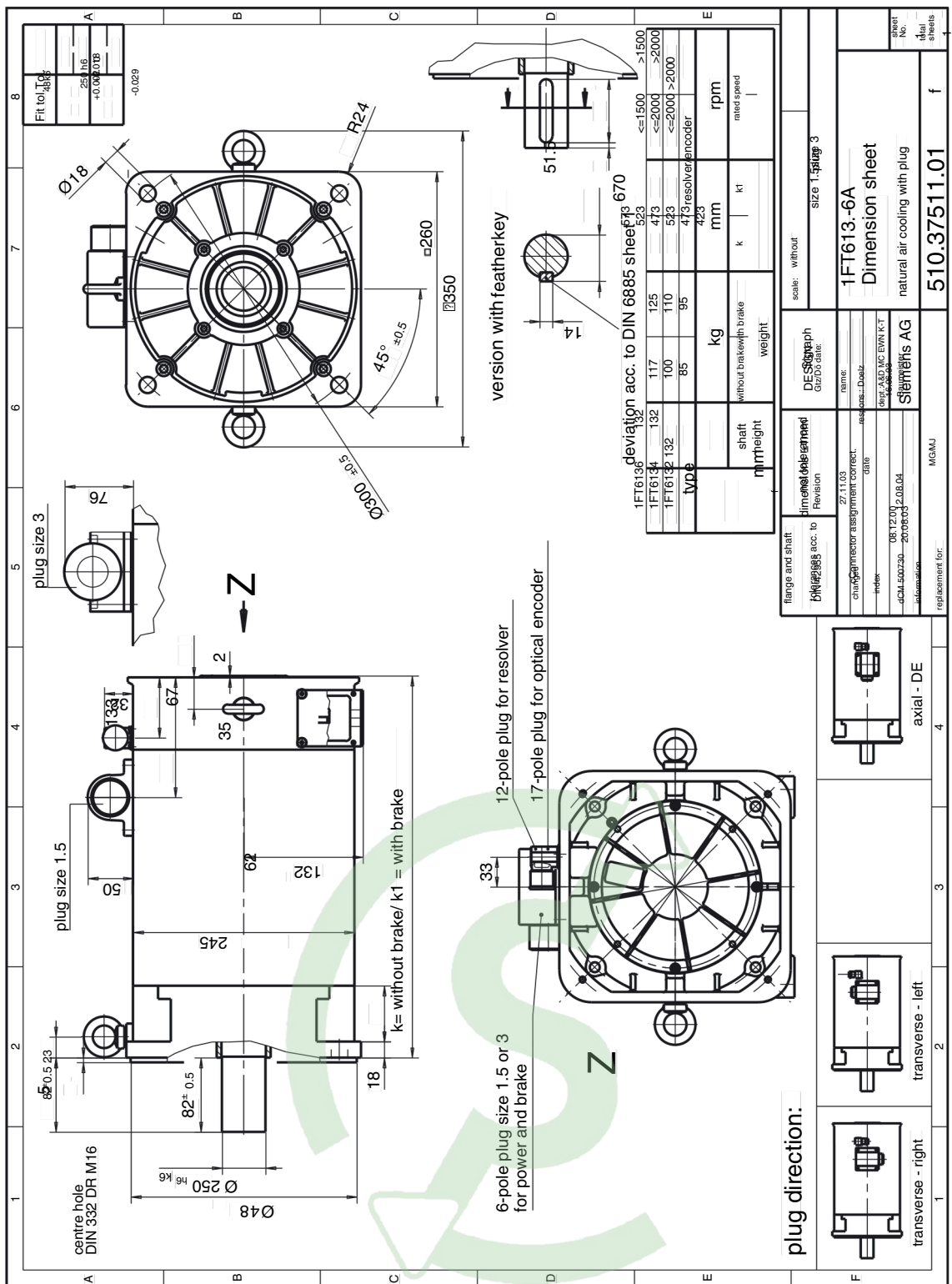


Fig. 6-8

1FT613 naturally cooled with connector, Size 1.5/3

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