E-Traction
E-TRACTION TEST BED

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DESCRIPTION

The E-traction test bed was especially developed for the operation of electric engines up to 24000 rpm. On the vibration-proof base frame, the dynamometer is connected to the test object by a t80x high speed shaft and a tZLE950 intermediate bearing.

The electric motor mounting flange is cooled with water and the space between measuring flange and E-motor flange is air cooled. For monitoring operation, the test bed is equipped with temperature sensors at relevant positions.

The E-traction test bed is also available as an option with an acoustic cowl or a climate-controlled chamber.

OPERATING RANGE

Torque: up to 1000 Nm
Speed: up to 25000 rpm

BENEFITS

- feather keys for easy realignment after dyno exchange
- measurement and media connections on different sides
- electrical temperature monitoring
- reliable temperature retention by water and air pressure
- low maintenance
- optional acoustic cowl
- optional climate-controlled chamber
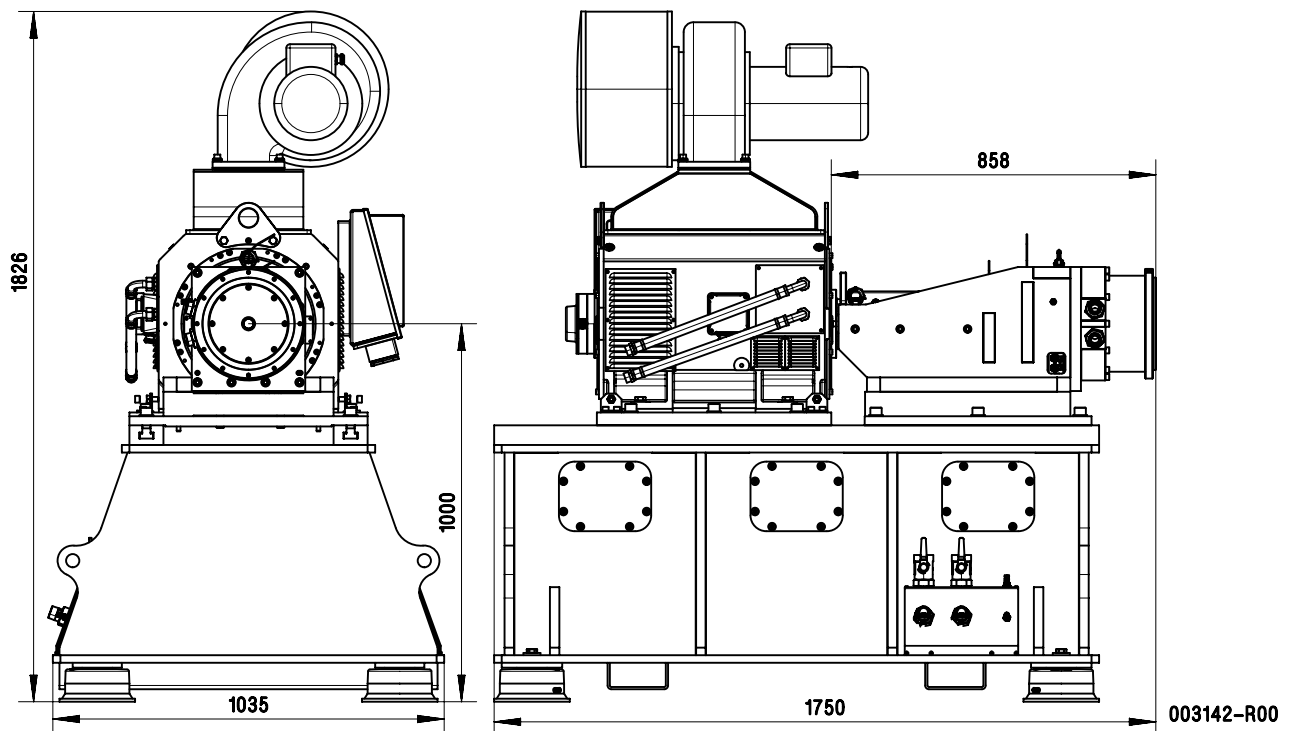
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E-Traction Test Bed	P	n_{max}	n_{nom}	T_{nom}	J
	[kW]	[rpm]	[rpm]	[Nm]	[kgm^2]
tET094-24[1]	94	24000	7500	120	2.6E-2
tET175-20[1]	175	20000	8350	200	6.3E-2
tET270-22[1]	270	22000	5100	510	1.4E-1
tET370-20[2]	370	20000	7600	462	1.6E-1
tET430-15[2]	430	15500	7600	593	1.9E-1
tET490-13[2]	490	13000	7600	616	2.1E-1

P - Power (S1)	n_{max} - Maximum speed	J - Inertia
T_{nom} - Nominal torque	n_{nom} - Nominal speed	

Subject to change.

1826 1000 1035 858 1750 003142-R00

E-Traction Test Bed – illustrative example

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[1] The specifications relate to the operation with a rotor temperature of $+25°C$.
[2] The specifications relate to the operation with a rotor temperature of $+125°C$.