AC-77 AC Torque Motor for Locomotives

11,000Nm AC Torque Motor alternative to existing D77 DC motors for locomotives.

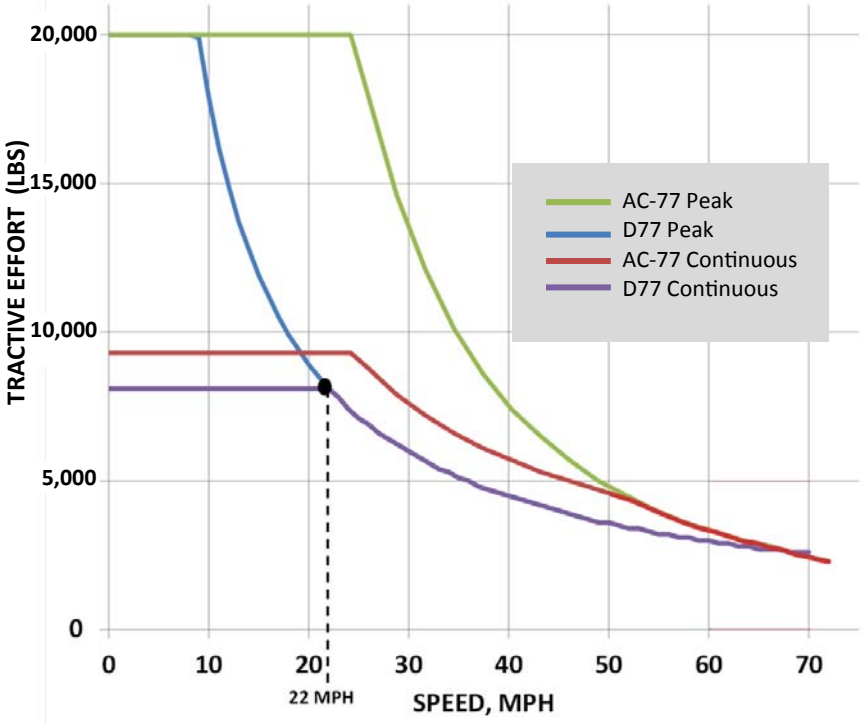
Features

- Mechanically compatible with the D77 motor, the AC-77 fits in same pedestal position in the locomotive truck/ bogie.
- Continuous and peak tractive effort improvement over D77 equipped locomotives
- Improved AC motor technology requires less maintenance and repair downtime than DC motor. Typical DC motor drawbacks such as armature commutator damage, "carbon tracking", frequent brush replacement and commutator repair, are nonexistent with the AC induction motor.
- Reduced cooling requirements due to high efficiency copper rotor and stator construction
- Convenient terminal block for motor power cable connections
- The AC-77 eliminates reversing contactors for quick and smooth reversing
- Designed to operate with the proven ATS Variable Frequency Drive featuring fully controllable automatic regenerative braking and advanced wheel slip/spin control.

AC-77 AC Torque Motor

AC-77 Motor Specifications	
ATS Part #	M6002-012
Supply Voltage to Inverter	500 - 700VDC
Phase	3
Frequency Range	0—150Hz
Rotor Type	Copper- barred
Continuous Torque	5,100Nm @ 520A
Peak Torque	11,000Nm @ 1,100A
Insulation Class	200°C
Mounting	Axle Mounting
Max Temp	150°C @ 1.0 S.F.
Max safe speed	3,000 rpm
Cooling Method	Forced Cooling
Weight	2,530kg (5,577 lbs)

Comparison of AC-77 AC Torque Motor to D77 DC Motor (62:15 gear ratio with 40" wheels)



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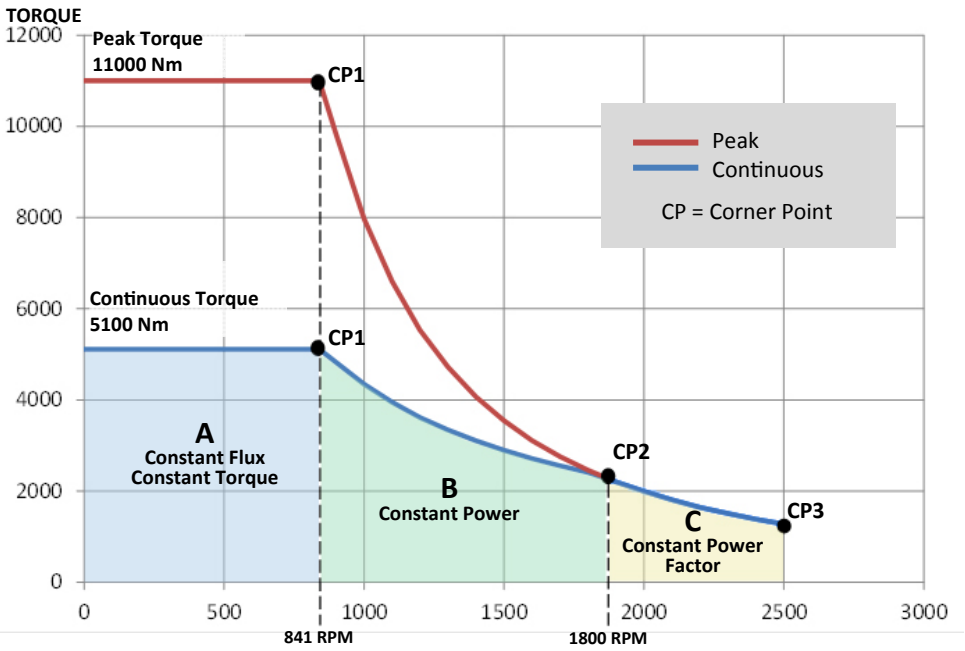
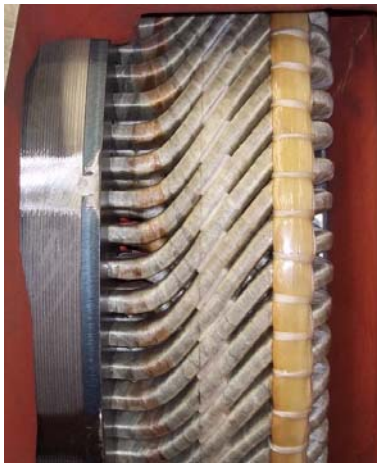
AC-77 AC Torque Motor for Locomotives

AC-77 Torque - Speed Characteristics at Motor Shaft



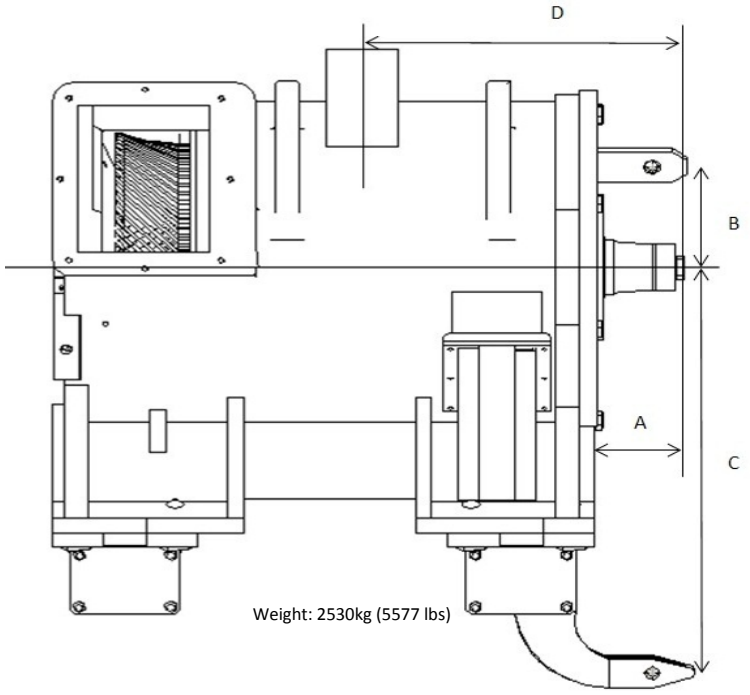
*Corner Point (**CP**) is a border between areas of characteristics following different laws (**A**,**B**,**C**).*

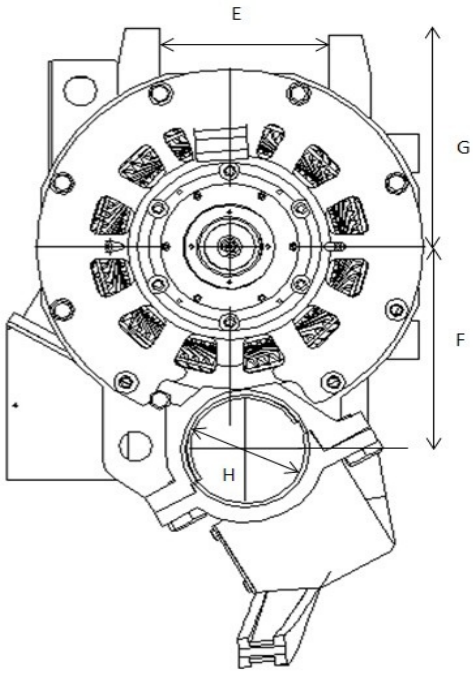
AC-77 AC Torque Motor terminal box (cover removed)



Stator winding

Motor Mechanical Specifications





Measured	mm	Inches
A	178	7
B	219	8.6
C	433	17.1
D	867	34.1
E	332	13.1
F	433	17.1
G	468	18.4
H	235	9.3

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