## Signals collected - TMFL\_ELECTRIC

NAME	DESCRIPTION	DATA_TYPE	UNI
J1939SeatPresenceState	represents whether an operator is detected in the seat and the correct actions are taken	uint8	Non
J1939MLIState	State of MLI based on weight triggered, stabilizers down and reach out	uint8	Non
J1939EngineWaterLevel	Represents the current level of wate in the engines cooling system	uint8	Nor
J1939HydraulicOilTemperatureTank	represents the temperature of the hydraulic oil within the tank	int16	Nor
J1939MLI1	MLI Placeholder	uint8	Nor
J1939MLI2	MLI Placeholder	uint8	Nor
J1939MLI3	MLI Placeholder	uint8	Nor
J1939MLI4	MLI Placeholder	uint8	Nor
J1939MLI5	MLI Placeholder	uint8	Nor
J1939MLI6	MLI Placeholder	uint8	Nor
J1939TemperatureSensor1	Placeholder	int16	Nor
J1939PressureSensor1	Placeholder	float	Nor
J1939TemperatureSensor2	Placeholder	int16	Nor
J1939PressureSensor2	Placeholder	float	Nor
J1939TemperatureSensor3	Placeholder	int16	Nor
J1939PressureSensor3	Placeholder	float	Nor
J1939TiltAngleRollOffset	Roll offset reported by (e)Moffett in range 0-36000	uint16	Noi
J1939TiltAnglePitchOffset	Pitch offset reported by (e)Moffett in range 0-36000	uint16	No
ETMFLBatteryCurrentRear	Represents the current flowing through the Rear motor	float	Α
ETMFLBatteryPowerRear	Represents the battery power of the Rear motor	float	k۷
ETMFLKeyswitchVoltageRear	Represents the voltage level of the rear keyswitch	float	٧
ETMFLControllerTemperatureRear	Represents the temperature of the rear motor controller	float	No
ETMFLMotorPowerRear	Represents the power output of the rear motor	float	k۱
ETMFLMotorTorqueRear	Represents the torque produced by the rear motor	float	Nı
ETMFLMotorTemperatureRear	Represents the motor temperature of the rear motor	float	No
ETMFLMotorCurrentRmsRear	Represents the root mean square (RMS) current of the rear motor	float	P
ETMFLMotorRpmRear	Represents the rotational speed (RPM) of the Rear motor	int32	RP
ETMFLMotorCurrentRmsFL	Represents the root mean square (RMS) current of the front-left (FL) motor	float	P
ETMFLMotorRpmFL	Represents the rotational speed (RPM) of the front-left (FL) motor	int32	RF
ETMFLBatteryCurrentFL	Represents the current flowing through the front-left (FL) motor	float	A
ETMFLBatteryPowerFL	Represents the battery power of the front-left (FL) motor	float	k۱
ETMFLKeyswitchVoltageFL	Represents the voltage level of the front-left (FL) keyswitch	float	\
ETMFLControllerTemperatureFL	Represents the temperature of the front-left (FL) motor controller	float	No
ETMFLMotorPowerFL	Represents the power output of the front-left (FL) motor	float	k۱
ETMFLMotorTorqueFL	Represents the torque produced by the front-left (FL) motor	float	N
ETMFLMotorTemperatureFL	Represents the motor temperature of the front-left (FL) motor	float	No
ETMFLMotorCurrentRmsFR	Represents the root mean square (RMS) current of the front-right (FR) motor	float	F
ETMFLMotorRpmFR	Represents the rotational speed (RPM) of the front-right (FR) motor	int32	RP

NAME	DESCRIPTION	DATA_TYPE	UNIT
ETMFLBatteryCurrentFR	Represents the current flowing through the front-right (FR) motor	float	Α
ETMFLBatteryPowerFR	Represents the battery power of the front-right (FR) motor	float	kW
ETMFLKeyswitchVoltageFR	Represents the voltage level of the front-right (FR) keyswitch	float	V
ETMFLControllerTemperatureFR	Represents the temperature of the front-right (FR) motor controller	float	None
ETMFLMotorPowerFR	Represents the power output of the front-right (FR) motor	float	kW
ETMFLMotorTorqueFR	Represents the torque produced by the front-right (FR) motor	float	Nm
ETMFLMotorTemperatureFR	Represents the motor temperature of the front-right (FR) motor	float	None
ETMFLSteerAnglePump	Represents the steering angle detected or controlled by the pump	int32	degree
ETMFLMotorCurrentRmsPump	Represents the root mean square (RMS) current of the pump	float	Α
ETMFLMotorTemperaturePump	Represents the motor temperature of the pump	float	None
ETMFLControllerTemperaturePump	Represents the temperature of the pump controller	float	None
ETMFLBatteryCurrentPump	Represents the current flowing through the Pump	float	Α
ETMFLBatteryPowerPump	Represents the battery power of the Pump	float	kW
ETMFLKeyswitchVoltagePump	Represents the voltage level of the pump keyswitch	float	V
ETMFLMotorRpmPump	Represents the rotational speed (RPM) of the pump	int32	RPM
ETMFLMotorPowerPump	Represents the power output of the pump	float	kW
ETMFLMotorTorquePump	Represents the torque produced by the pump	float	Nm
ETMFLIsDirectionFwd	Indicates whether the machine or vehicle is moving in the forward direction	bool	None
ETMFLIsDirectionRev	Indicates whether the machine or vehicle is moving in the reverse direction	bool	None
ETMFLIsDirectionNeutral	Indicates whether the machine or vehicle is in neutral	bool	None
ETMFLRequestedLiftLower	Represents the desired lift or lower position requested for the forklift forks	bool	None
ETMFLRequestedTilt	Represents the desired tilt angle or position requested for the forklift mast or forks	bool	None
ETMFLRequestedSideShift	Represents the desired side-to-side shift position requested for the forklift forks	bool	None
ETMFLRequestedForkReach	Represents the desired extension length requested for the forklift forks	bool	None
ETMFLRequestedStabilizer	Represents the desired setting requested for the stabilizer system. (Up or Down)	bool	None
ETMFLFlagGroundMount	Indicates whether the ground mount system is currently active or engaged	bool	None
ETMFLFlagGroundMountAllowThrottle	Indicates whether throttle operation is permitted while the ground mount system is active	bool	None
ETMFLFlagAuxSw	Indicates the status of the auxiliary switch (on or off)	bool	None
ETMFLSelectedLiftLower	Represents the current setting or command for lifting or lowering the forklift forks	bool	None
ETMFLSelectedTile	Represents the currently selected tilt angle or position of the forklift mast or forks	bool	None
ETMFLSelectedSideShift	Represents the currently selected side shift position or setting of the forklift forks	bool	None
ETMFLSelectedForkReach	Represents the currently selected extension length of the forklift forks	bool	None
ETMFLSelectedStabilizer	Represents the current setting of the stabilizer system. (Up or Down)	bool	None
ETMFLBatteryChargeDemandCurrent	Represents the current amount of charge current requested by the battery management system	uint16	Α
ETMFLBatteryArrayState	Represents the current operational state or condition of the entire battery array	uint8	None
ETMFLBatteryArrayFault	Represents the current fault condition of the battery array, typically derived from the fault bit-field	uint8	None
ETMFLBatteryHighestCellVoltage	Represents the highest voltage measured among all individual battery cells	float	V
ETMFLBatteryLowestCellVoltage	Represents the lowest voltage measured among all individual battery cells	float	V
ETMFLBatteryArrayVoltage	Represents the total voltage across the entire battery array	float	V
ETMFLBatteryStateOfCharge	Sate of Charge of the battery	uint8	None
ETMFLBatteryChargerConnected	Indicates whether the battery charger is currently connected to the system	bool	None
ETMFLBatteryArrayCurrent	Represents the total current flowing through the entire battery array	int16	A

NAME	DESCRIPTION	DATA_TYPE	UNIT
ETMFLBatteryMinutesToFull	Represents the estimated time in minutes for the battery to reach full charge	uint16	None
ETMFLBatterySystemHighTemperature	Represents the highest recorded system temperature with a resolution of 0.1 °C per bit	float	None
ETMFLBatterySystemLowTemperature	Represents the lowest recorded system temperature with a resolution of 0.1 °C per bit	float	None
ETMFLBatteryMinutesToEmpty	Represents the estimated time in minutes for the battery to reach empty	uint16	None
ETMFLBatteryNodesMissing	Represents the number of system nodes that are currently unresponsive or not detected	uint8	None
ETMFLTruckChargerOutputVoltage	Represents the output voltage of the truck's charger	float	None
ETMFLTruckChargerOutputCurrent	Represents the output current of the truck's charger	float	None
ETMFLTruckChargerHwFailureState	Indicates whether a hardware failure has been detected in the truck's charger	bool	None
ETMFLTruckChargerTemperatureState	Indicates the temperature status or condition of the truck's charger system	bool	None
ETMFLTruckChargerInputVoltageState	Indicates the status of the input voltage supplied to the truck's charger	bool	None
ETMFLTruckChargerStartingState	Indicates the current starting or initialization status of the truck's charger	bool	None
ETMFLTruckChargerCommState	Indicates the communication status between the truck and its charger system	bool	None
ETMFLServiceNumber	Represents the unique identifier or reference number for a specific service	int16	None
ETMFLMachineHoursServiceCompletedAt	Represents the machine operating hours recorded at the time the last service was completed	int32	None
ETMFLMachineHoursTillNextService	Represents the remaining machine operating hours before the next scheduled service	int32	None
ETMFLServiceProvider	Represents the name or identifier of the entity responsible for servicing or maintaining the machine	int16	None
ETMFLIgnitionOnHours	Represents the cumulative number of hours the ignition has been on	double	None
ETMFLContactorClosedHours	ETMFL engine hours	double	None
ETMFLGroundMountUsageCount	Represents the number of times the ground mount system has been used or activated	int16	None
ETMFLDisplaySoftwareVersion	ETMFL Display SW version number	uint16	None
ETMFLPumpControllerSoftwareVersion	ETMFL Pump controller SW version number	uint16	None
ETMFLRearControllerSoftwareVersion	ETMFL Rear controller SW version number	uint16	None
ETMFLLeftControllerSoftwareVersion	ETMFL Left controller SW version number	uint16	None
ETMFLRightControllerSoftwareVersion	ETMFL Right controller SW version number	uint16	None
InclinationEstimatorCalibrationRoll	Moffett inclination estimator algorithm roll calibration value	double	None
InclinationEstimatorCalibrationPitch	Moffett inclination estimator algorithm pitch calibration value	double	None
InclinationEstimatorCalibrationYaw	Moffett inclination estimator algorithm yaw calibration value	double	None
InclinationEstimatorCalibrationInvertPitch	Moffett inclination estimator algorithm invert pitch calibration value	bool	None
InclinationEstimatorCalibrationRcpX	Moffett inclination estimator algorithm RCP X calibration value	double	None
InclinationEstimatorCalibrationRcpY	Moffett inclination estimator algorithm RXP Y calibration value	double	None
InclinationEstimatorCalibrationRcpZ	Moffett inclination estimator algorithm RCP Z calibration value	double	None
InclinationEstimatorCalibrationTuneKp	Moffett inclination estimator algorithm Tune Kp calibration value	double	None
InclinationEstimatorCalibrationTuneKi	Moffett inclination estimator algorithm Tune Ki calibration value	double	None
InclinationEstimatorCalibrationTuneC	Moffett inclination estimator algorithm Tune C calibration value	double	None