REQUIRED DATA FOR ANALYSIS USING THE ADVANCED ELECTRICAL CALCULATOR

DETAIL	VALUE	
Section 1: Load and Equipment Selection		
FORZA machines and their power rating in kW		
External machines and their power rating in kW		
Machines operating simultaneously and representing the highest consumption in kW		
Power factor [1]		
Section 2: Information on the existing electrical system		
Actual transformer capacity in kVA		
Transformer type	☐ Dedicated	☐ Shared
Service cable material	☐ Cupper	☐ Aluminum
Service cable data	Gauge (m):	Length (m):
Existing network type	☐ Single phase	☐ Three phases
Workshop Environmental conditions	Altitude (m):	Max. temp. (°C):
Section 3: Conditions for the new installation		
Nominal line voltage (theoretical)		
Measured voltages [2]	Max:	Min:
Conductor material (branch circuits)	☐ Cupper	☐ Aluminum
Safety Factor [3]	☐ Yes	☐ No

1. *The power factor is a measurement that indicates how efficiently electrical energy is being used in an installation. Its value must be obtained by a specialist through a direct measurement. If taking a measurement is not possible, an average reference value of 0.9 may be used.*
2. *The measured voltages are essential for estimating the actual load on the transformer. These values must be taken with a voltmeter or a multimeter set to voltmeter mode. It is necessary to record the maximum value during one hour of peak demand (when most users are drawing power from the electrical network) and the minimum value during one hour of low demand, such as during early-morning hour.*
3. *The safety factor is a value used to ensure that the electrical system operates with an additional margin of protection against load variations or unforeseen conditions. A typical value of 1.25 is used. If a different value is required or selected, it should be entered in the field corresponding to this factor.*