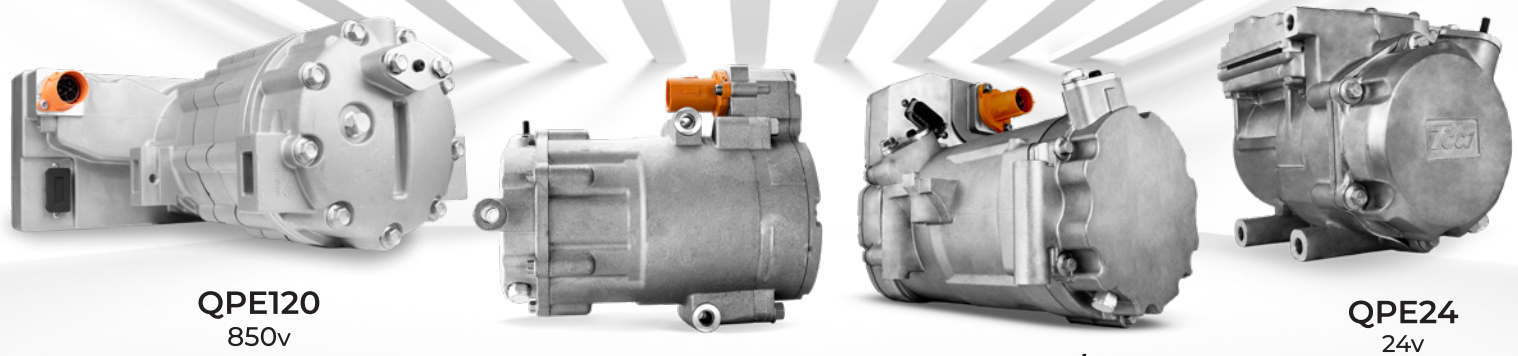

QPE120
850v

QPE34
450-850v

QPE46/60
850v

QPE24
24v

Electric Compressors

High Voltage up to 30kw | 400V and 850V
Low Voltage up to 7kw | 12V - 48V

TCCI electric compressors deliver proven, high-performance thermal solutions for **Class 3–8 commercial vehicles and recreational platforms worldwide.** Designed to support electric, hybrid, and next-generation vehicle architectures, our **2–30 kW, 12–48V, 400V and 850V portfolio** enables scalable application across a wide range of duty cycles, operating environments, and regulatory markets.

Backed by validation at the **Climatic Center for Innovation & Research (CCIR)**, TCCI compressors are tested under realistic duty cycles and ambient extremes—reducing development risk and accelerating time-to-market. With **multiple global manufacturing locations and regional engineering support**, TCCI ensures total delivered value with extensive system-level validation, tested integration support, and long-term field-tested reliability with every unit.

Inquire about our QPE24-12 and QPE34-48 models currently in development.

CAPABILITIES POWERED BY OUR TECHNOLOGY

Performance You Can Count On

Cabin Cooling
Electric compressors sized and controlled for no-idle and full-electric cabin HVAC in buses, trucks, and specialty vehicles. Wide operating envelopes and data from CCIR help optimize comfort, defrost, and NVH without compromising vehicle range or fuel efficiency.

Battery Cooling
High-voltage compressors applied to battery, power electronics, and e-axle thermal solutions, with precise speed control and maps developed from realistic duty cycles. Validation through CCIR supports safer operation, tighter temperature control, and higher overall efficiency.

Cabin + Battery Cooling
A common compressor family can be used for combined cabin + battery thermal solutions, enabling platform commonality, fewer part numbers, and lower lifecycle cost. Application support and CCIR testing help balance comfort, battery temperature, and energy use for your specific architecture.

TCCI Low Voltage Electric Compressor Model Overview		
Compressor Style	Inline	Camelback
Model	QPE15-24	QPE24-24
Displacement [cc/rev]	15	24
Power Voltage Range [V]	16 - 32	16 - 32
Signal Voltage Range [V]	9 - 32	9 - 32
Communication	CAN	CAN
Cooling Capacity [kW]*	1.9	3.6
Compressor Speed [RPM]	1000 - 5000	2400 - 6000
Refrigerants	R134A, R1234yf, R404A**, R452A**, R454A**, R290**	
Oil Type	PAG: PSR1, Other oils can be considered with TCCI guidance	

TCCI High Voltage Electric Compressor Model Overview					
Compressor Style	Inline	Inline	Inline	Inline	Inline
Model	QPE34-400	QPE34-850	QPE46-850	QPE60-850	QPE120-850
Displacement [cc/rev]	34	34	46	60	120
Power Voltage Range [V]	210 - 455	450 - 850	450 - 850	450 - 850	450 - 850
Signal Voltage Range [V]	9 - 32	9 - 32	9 - 32	9 - 32	9 - 32
Communication	CAN	CAN/LIN	CAN/LIN	CAN/LIN	CAN/LIN
Cooling Capacity [kW]*	8.5	8.5	11	14.4	29
Compressor Speed [RPM]	1000 - 8500				
Refrigerants	R134A, R1234yf, R404A**, R452A,** R454A**, R290**				
Oil Type	PAG: PSR1, Other oils can be considered with TCCI guidance				

*Performance rating condition: R134a, PD / PS = 1.57 / 0.3 MPaA , 10K SH, 5K SC, Max Speed, Nominal Voltage

** R404A, R452A, R454A, and R290 refrigerants require PAG 68 oil type.

PERFORMANCE AND DURABILITY COUNT

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TCCImfg.com