

SMART DUPLEX

CO₂ COMPACT COMPRESSOR RACK

Smart Duplex compressor racks offer the highest powers for the commercial refrigeration range with CO₂ at 2 temperatures, MT and LT. They are two-level transcritical cycle booster machines, and this reduces the space required for their assembly and ensures modulation and operational reliability thanks to the number of compressors they house. Optional: up to 3 exchangers and 1 parallel compressor.

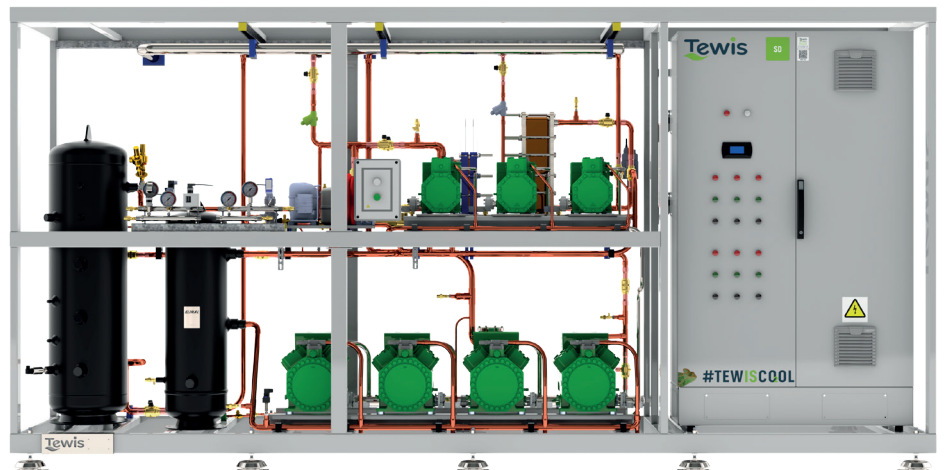
- » FOOD RETAIL (CONVENIENCE STORES).
- » SUPERMARKETS.
- » REFRIGERATED WAREHOUSES.
- » SEMI-INDUSTRIAL APPLICATIONS.

COOLING CAPACITY: 80 to 250 KW

APPLICATION: 1000 to 2.500 M²

- ✔ Profitability and energy savings.
- ✔ 100% CO₂ = low environmental impact.
- ✔ Compact and simple design (only 1 m depth).
- ✔ High capacity up to 9 compressors.
- ✔ Vertical liquid receiver with high capacity (up to 2x200 l).
- ✔ Extreme flexibility.
- ✔ Remote control (accessible anywhere).
- ✔ Easy commissioning and maintenance.
- ✔ Possibility of 2 RHX, one for DHW and one for air conditioning.

- RHX**
PS 120 / 70 / 52 / 30 Bar
- 80 to 250 KW
- Plug & Play
- Emergency unit
- Liquid receiver up to 2x200
- M2
1000 - 2500 m²
- Compact design
- < Mainten. costs



STANDARD EQUIPMENT

- Tubular chassis.
- Oil separator accumulator.
- High capacity liquid receiver (up to 2x200 l).
- Up to 9 compressors.
- Frequency inverter for MT & LT.
- Two electronic sensors for refrigerant levels.
- All copper connections.



OPTIONS

- Parallel compressor.
- RHX (Recovery Heat Exchanger) up to 190 kW.
- IHX (Intenal Heat Exchanger).
- Double high pressure and gas bypass valves.
- Emergency unit on board.
- 10" touchpad TMS (Tewis Machine Supervisor).
- Possibility of 2 RHX, one for DHW and one for air conditioning.
- Also available with ECOLINE+ compressors (permanent magnet motor compressors - LSPM)



DESIGN PRESSURES C02

- MP (MT suction): 52 bar.
- LP (LT suction): 30 bar.
- IP (Reciever and liquid line): 70 bar.
- HP (Discharge): 120 bar.

CONTROLLERS

- Tewis (EWCM9000pro).
- Danfoss (AK-PC772 or 782).
- Carel (pRack PR300T Medium or Large).

COMPRESSORS

- BITZER.

Its design allows easy access to all the components of the unit, reducing installation and maintenance time and costs.

MODELS & DATA

BASE CODE	APPLICATION	CAPAC. KW MT* 70 Hz	CAPAC. KW LT* 70 Hz	MT COMPRESSORS	PARALLEL COMPRESSOR	LT COMPRESSORS
GSD03MJ_048ZBX	MT	176,19		1 x 4HTE-20K (V.F. @70 Hz) + 4 x 4FTE-30K		
GSD03MJ_049ZBX	MT	259,96		1 x 4FTE-30K (V.F. @70 Hz) + 4 x 4CTE-30K		
TSD3JJ_028ZBX	MT+LT	55,13	20,05	1 x 4JTE-15K (V.F. @70 Hz) + 2 x 4HTE-20K		1 x 2JSL-2K (V.F. @70 Hz) + 2 x 2JSL-2K
TSD3KJ_030ZBX	MT+LT	68,63	30,84	1 x 4JTE-15K (V.F. @70 Hz) + 3 x 4HTE-20K		1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2GSL-3K
TSD3JJ_031ZBX	MT+LT	77,5	25,97	1 x 4HTE-20K (V.F. @70 Hz) + 2 x 4FTE-30K		1 x 2HSL-3K (V.F. @70 Hz) + 2 x 2HSL-3K
TSD3KJ_033ZBX	MT+LT	104,79	33,61	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4FTE-30K		1 x 2HSL-3K (V.F. @70 Hz) + 3 x 2HSL-3K
TSD3KJ_035ZBX	MT+LT	120,12	18,33	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4FTE-30K		1 x 2HSL-3K (V.F. @70 Hz) + 1 x 2HSL-3K
TSD3KJ_034ZBX	MT+LT	113,79	26,4	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4FTE-30K		1 x 2JSL-2K (V.F. @70 Hz) + 2 x 2GSL-3K
TSD3KJ_050ZBX	MT+LT	153,88	35,88	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4CTE-30K		1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2FSL-4K
TSD3KJ_051ZBX	MT+LT	171,47	35,88	1 x 4FTE-30K (V.F. @70 Hz) + 3 x 4CTE-30K		1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2FSL-4K
TSD3MJ_052ZBX	MT+LT	184,72	74,72	1 x 4FTC-30K (V.F. @70 Hz) + 4 x 4CTE-30K		1 x 2DSL-5K (V.F. @70 Hz) + 3 x 2DSL-5K
TSD3MJ_053ZBX	MT+LT	212,24	47,47	1 x 4FTE-30K (V.F. @70 Hz) + 4 x 4CTE-30K		1 x 2GSL-3K (V.F. @70 Hz) + 3 x 2FSL-4K
TSD3JJ_036ZBX	MT+LT	59,53	21,77	1 x 4JTE-15K (V.F. @70 Hz) + 1 x 4HTE-20K	1 x 4MTE-10K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 1 x 2GSL-3K
TSD3KJ_037ZBX	MT+LT	89,65	30,84	1 x 4JTE-15K (V.F. @70 Hz) + 2 x 4HTE-20K	1 x 4JTE-15K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2GSL-3K
TSD3KJ_039ZBX	MT+LT	110,54	26,4	1 x 4HTE-20K (V.F. @70 Hz) + 2 x 4HTE-20K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2JSL-2K (V.F. @70 Hz) + 2 x 2GSL-3K
TSD3KJ_042ZBX	MT+LT	125,31	14,16	1 x 4HTE-20K (V.F. @70 Hz) + 2 x 4HTE-20K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2JSL-2K (V.F. @70 Hz) + 1 x 2JSL-2K
TSD3KJ_040ZBX	MT+LT	123,13	30,6	1 x 4JTE-15K (V.F. @70 Hz) + 2 x 4FTE-30K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2FSL-4K (V.F. @70 Hz) + 1 x 2ESL-4K
TSD3KJ_044ZBX	MT+LT	129,46	24,29	1 x 4JTE-15K (V.F. @70 Hz) + 2 x 4FTE-30K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 1 x 2FSL-4K
TSD3MJ_041ZBX	MT+LT	123,82	35,88	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4HTE-20K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2FSL-4K
TSD3KJ_045ZBX	MT+LT	129,88	30,84	1 x 4HTE-20K (V.F. @70 Hz) + 2 x 4FTE-30K	1 x 4HTE-20K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2GSL-3K
TSD3MJ_046ZBX	MT+LT	179,88	44,96	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4FTE-30K	1 x 4FTE-30K (V.F. @70 Hz)	1 x 2FSL-4K (V.F. @70 Hz) + 2 x 2ESL-4K
TSD3MJ_047ZBX	MT+LT	188,97	35,88	1 x 4HTE-20K (V.F. @70 Hz) + 3 x 4FTE-30K	1 x 4FTE-30K (V.F. @70 Hz)	1 x 2GSL-3K (V.F. @70 Hz) + 2 x 2FSL-4K

*Calculation conditions: $T_{ev\ MT} -8^{\circ}C$, $T_{ev\ LT} -32^{\circ}C$, $T_{sgc} +35^{\circ}C$.

