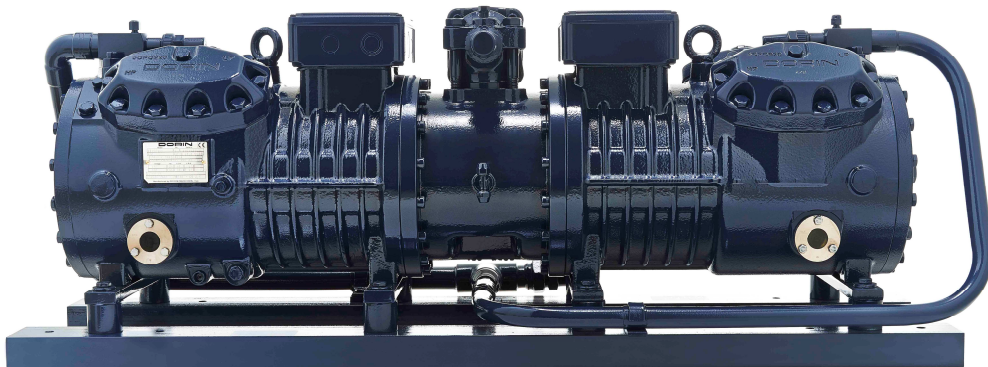




OFFICINE MARIO DORIN SINCE 1918  
**DORIN**<sup>®</sup>  
INNOVATION

**TH**  
**T-HI**  
**(TANDEM)**  
**SERIES**

2015



**SEMI-HERMETIC MOTOR COMPRESSORS**

MOTOCOMPRESSORI SEMIHERMETICI

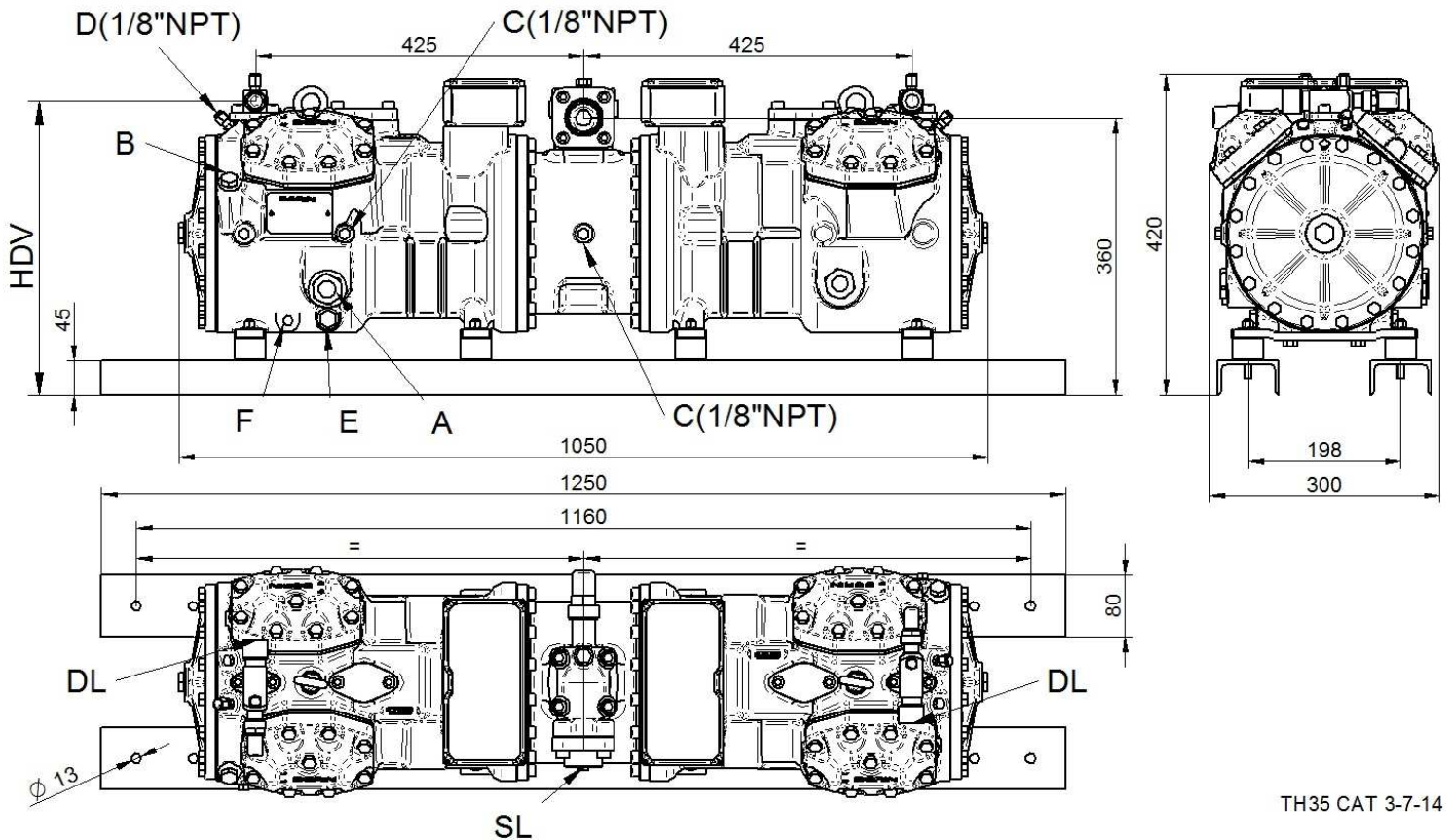
MOTO-COMPRESSEURS SEMI-HERMETIQUES

HALBHERMETISCHE VERDICHTER

Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refoilem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.	HDV	---	---
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	[mm]	---	---	
TH 35	TH 801CS	H401CS	38,6	35s	2 x 18s	5,0	196	220 - 240 / 3 / 50 Δ 265 - 290 / 3 / 60 Δ 380 - 420 / 3 / 50 Y 440 - 480 / 3 / 60 Y	2 x 18,1 / 10,5	2 x 92 / 53	I	386	---	---
	TH 901CC	H451CC	38,6	35s	2 x 18s	5,0	200		2 x 25,0 / 14,5	2 x 109 / 63	I	386	---	---
	TH 901CS	H451CS	46,3	35s	2 x 18s	5,0	196		2 x 18,1 / 10,5	2 x 92 / 53	I	386	---	---
	TH 1101CC	H551CC	46,3	35s	2 x 18s	5,0	200		2 x 25,0 / 14,5	2 x 109 / 63	I	386	---	---
	TH 1101CS	H551CS	54,7	35s	2 x 22s	5,0	200		2 x 25,0 / 14,5	2 x 109 / 63	I	390	---	---
	TH 1401CC	H701CC	54,7	35s	2 x 22s	5,0	200		2 x 34,0 / 19,5	2 x 149 / 86	I	390	---	---
	TH 1401CS	H701CS	63,8	35s	2 x 22s	5,0	200		2 x 25,0 / 14,5	2 x 109 / 63	I	390	---	---
	TH 1501CC	H751CC	63,8	35s	2 x 22s	5,0	200		2 x 34,0 / 19,5	2 x 149 / 86	I	390	---	---
	TH 1501CS	H751CS	76,1	42s	2 x 22s	5,0	200		2 x 34,0 / 19,5	2 x 149 / 86	I	390	---	---
	TH 2002CC	H1002CC	76,1	42s	2 x 22s	5,0	214		2 x 40,0 / 23,0	2 x 159 / 92	I	390	---	---
	TH 1601CS	H801CS	87,5	42s	2 x 22s	5,0	200		2 x 34,0 / 19,5	2 x 149 / 86	I	390	---	---
	TH 2003CC	H1003CC	87,5	42s	2 x 22s	5,0	214		2 x 40,0 / 23,0	2 x 159 / 92	I	390	---	---

Figura / Figure / Figure / Abbildung I

# TH 35



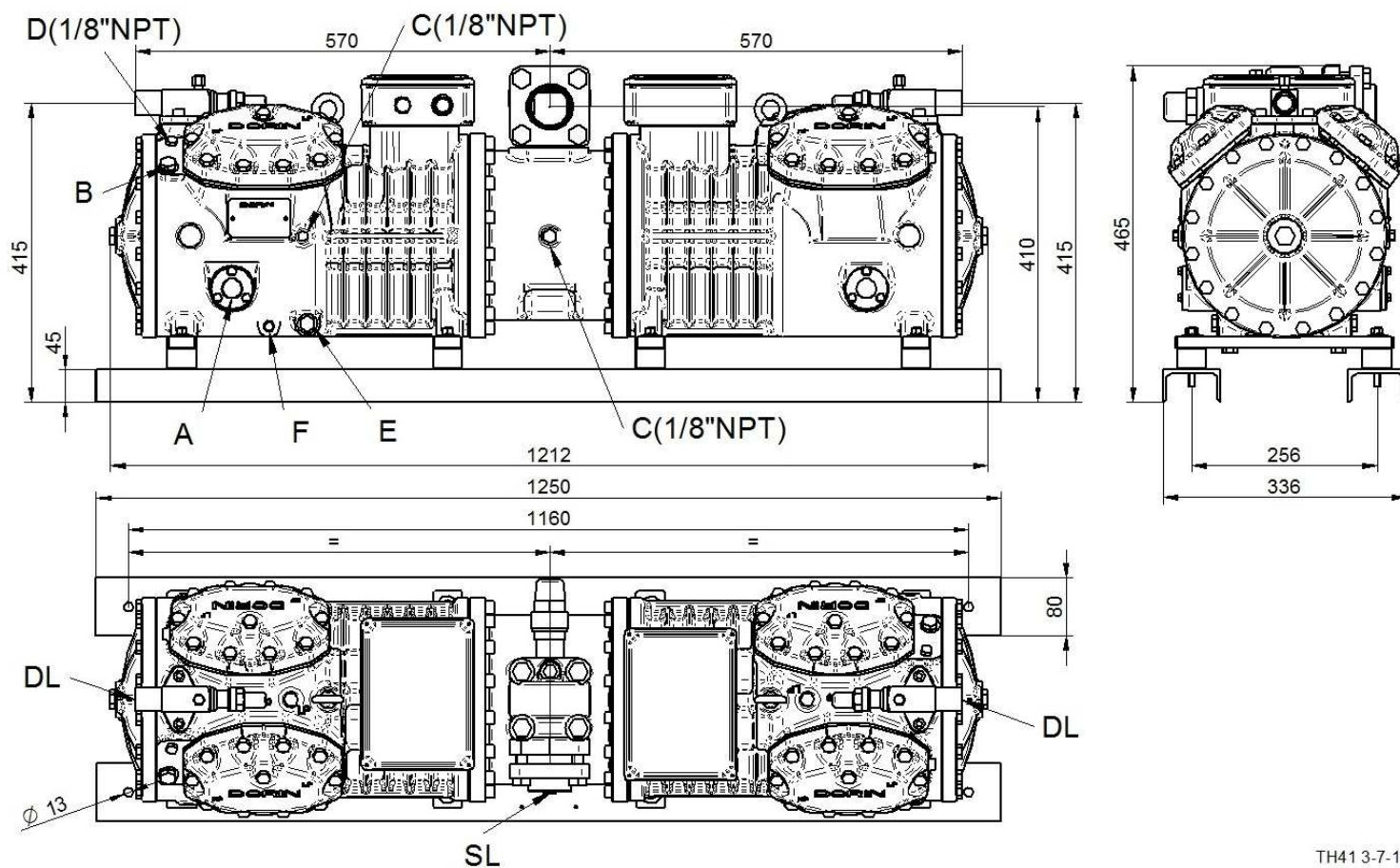
TH35 CAT 3-7-14

A - Spia Olio B - Tappo carica Olio C - Presa Bassa Pres. D - Presa Alta Pres. E - Tappo scarica olio F - Resistenza carter  DL - Rubinetto Compressione SL - Rubinetto Aspirazione	A - Oil sight B - Oil charge plug C - Low pressure tap D - High pressure tap E - Oil drain plug F - Crankcase heater  DL - Discharge service valve SL - Suction service valve	A - Voyant d'huile B - Bouchon charge huile C - Prise basse pression D - Prise haute pression E - Bouchon vidange d'huile F - Resistance carter  DL - Vanne de refoilement SL - Vanne aspiration	A - Ölschauglas B - Öfüllstopfen C - Anschluss Niederdruck D - Anschluss Hochdruck E - Ölablaß F - Ölsumpfheizung  DL - Druckabsperrentil SL - Saugabsperrentil
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Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refoilem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.			
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	---	---	---	
TH 41	TH 1701CS	H851CS	85,6	54s	2 x 28s	6,0	265	380 - 420 / 3 / 50 440 - 480 / 3 / 60 PMS	2 x 20,0	2 x 105	II	---	---	---
	TH 2401CC	H1201CC	85,6	54s	2 x 28s	6,0	275		2 x 28,0	2 x 135	II	---	---	---
	TH 2001CS	H1001CS	97,6	54s	2 x 28s	6,0	269		2 x 24,0	2 x 109	II	---	---	---
	TH 3001CC	H1501CC	97,6	54s	2 x 28s	6,0	275		2 x 34,0	2 x 171	II	---	---	---
	TH 3001CS	H1501CS	113,7	54s	2 x 28s	6,0	269		2 x 28,0	2 x 135	II	---	---	---
	TH 4001CC	H2001CC	113,7	54s	2 x 28s	6,0	275		2 x 38,0	2 x 177	II	---	---	---
	TH 3201CS	H1601CS	127,5	54s	2 x 28s	6,0	281		2 x 34,0	2 x 171	II	---	---	---
	TH 4401CC	H2201CC	127,5	54s	2 x 28s	6,0	285		2 x 45,0	2 x 203	II	---	---	---

Figura / Figure / Figure / Abbildung II

TH 41



TH41 3-7-14

A - Spia Olio  
B - Tappo carica Olio  
C - Presa Bassa Pres.  
D - Presa Alta Pres.  
E - Tappo scarica olio  
F - Resistenza carter

DL - Rubinetto Compressione  
SL - Rubinetto Aspirazione

A - Oil sight  
B - Oil charge plug  
C - Low pressure tap  
D - High pressure tap  
E - Oil drain plug  
F - Crankcase heater

DL - Discharge service valve  
SL - Suction service valve

A - Voyant d'huile  
B - Bouchon charge huile  
C - Prise basse pression  
D - Prise haute pression  
E - Bouchon vidange d'huile  
F - Resistance carter

DL - Vanne de refoilement  
SL - Vanne aspiration

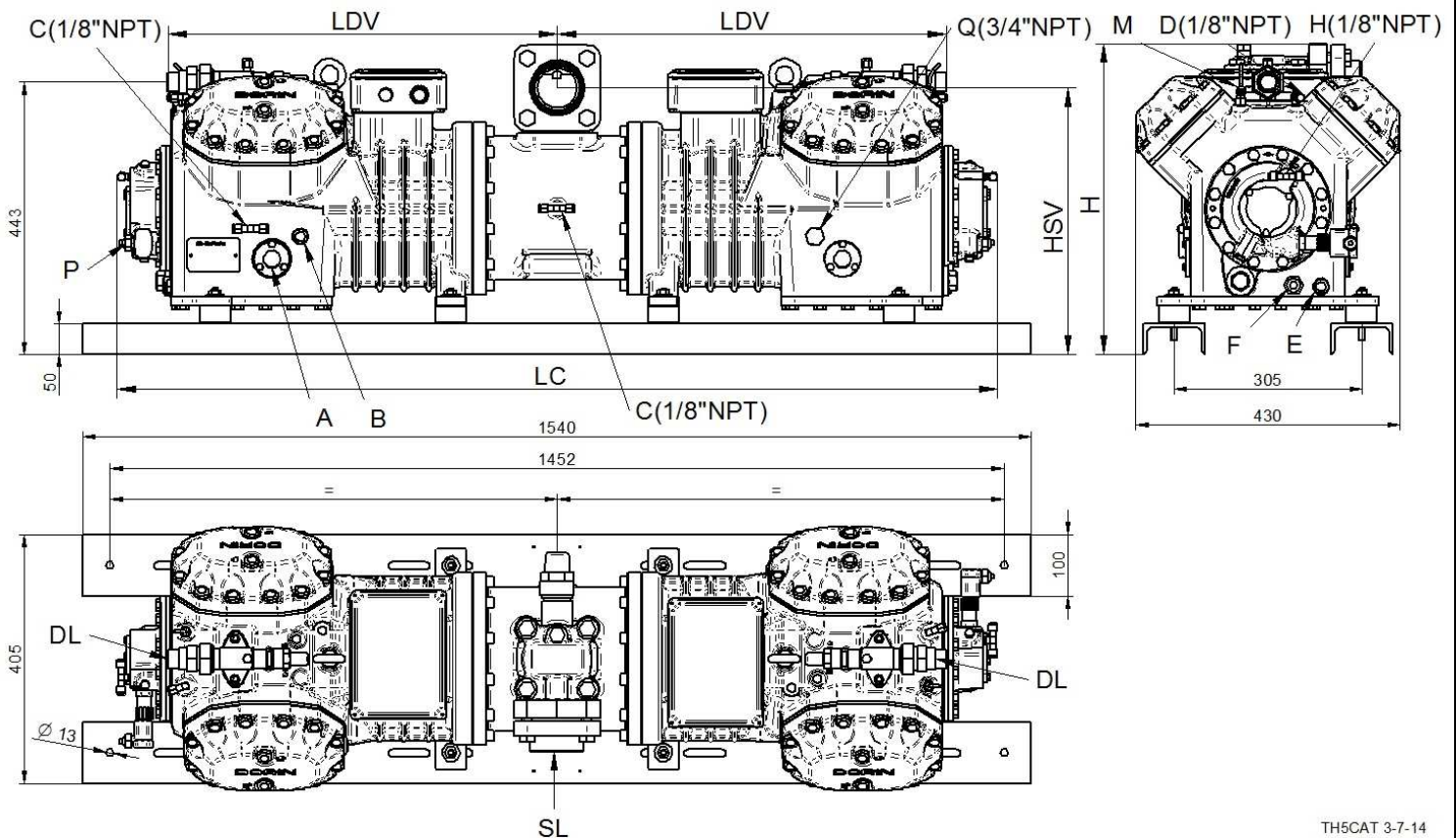
A - Ölschauglas  
B - Ölfüllstopfen  
C - Anschluss Niederdruck  
D - Anschluss Hochdruck  
E - Ölablaß  
F - Ölsumpfheizung

DL - Druckabsperrentil  
SL - Saugabsperrentil

Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refoilem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.	LC	H	LDV	HSV
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	[mm]	[mm]	[mm]	[mm]	
TH 5	TH 4000CS	H2000CS	151,7	54s	2 x 28s	8,5	395	380 - 420 / 3 / 50 440 - 480 / 3 / 60 PWS	2 x 38,0	2 x 177	III	1375	485	610	420
	TH 5000CC	H2500CC	151,7	66s	2 x 28s	8,5	385		2 x 48,0	2 x 203	III	1432	506	630	435
	TH 5000CS	H2500CS	170,0	66s	2 x 28s	8,5	391		2 x 45,0	2 x 203	III	1432	506	630	435
	TH 6000CC	H3000CC	170,0	66s	2 x 28s	8,5	413		2 x 56	2 x 245	III	1432	506	630	435
	TH 5400CS	H2700CS	184,5	66s	2 x 35s	8,5	421		2 x 48,0	2 x 203	III	1432	506	630	435
	TH 6400CC	H3200CC	184,5	66s	2 x 35s	8,5	441		2 x 60	2 x 260	III	1532	500	680	435
	TH 5800CS	H2900CS	204,7	66s	2 x 35s	8,5	431		2 x 56	2 x 245	III	1432	506	630	435
	TH 6800CC	H3400CC	204,7	66s	2 x 35s	8,5	441		2 x 60	2 x 260	III	1532	500	680	435

Figura / Figure / Figure / Abbildung III

**TH 5**



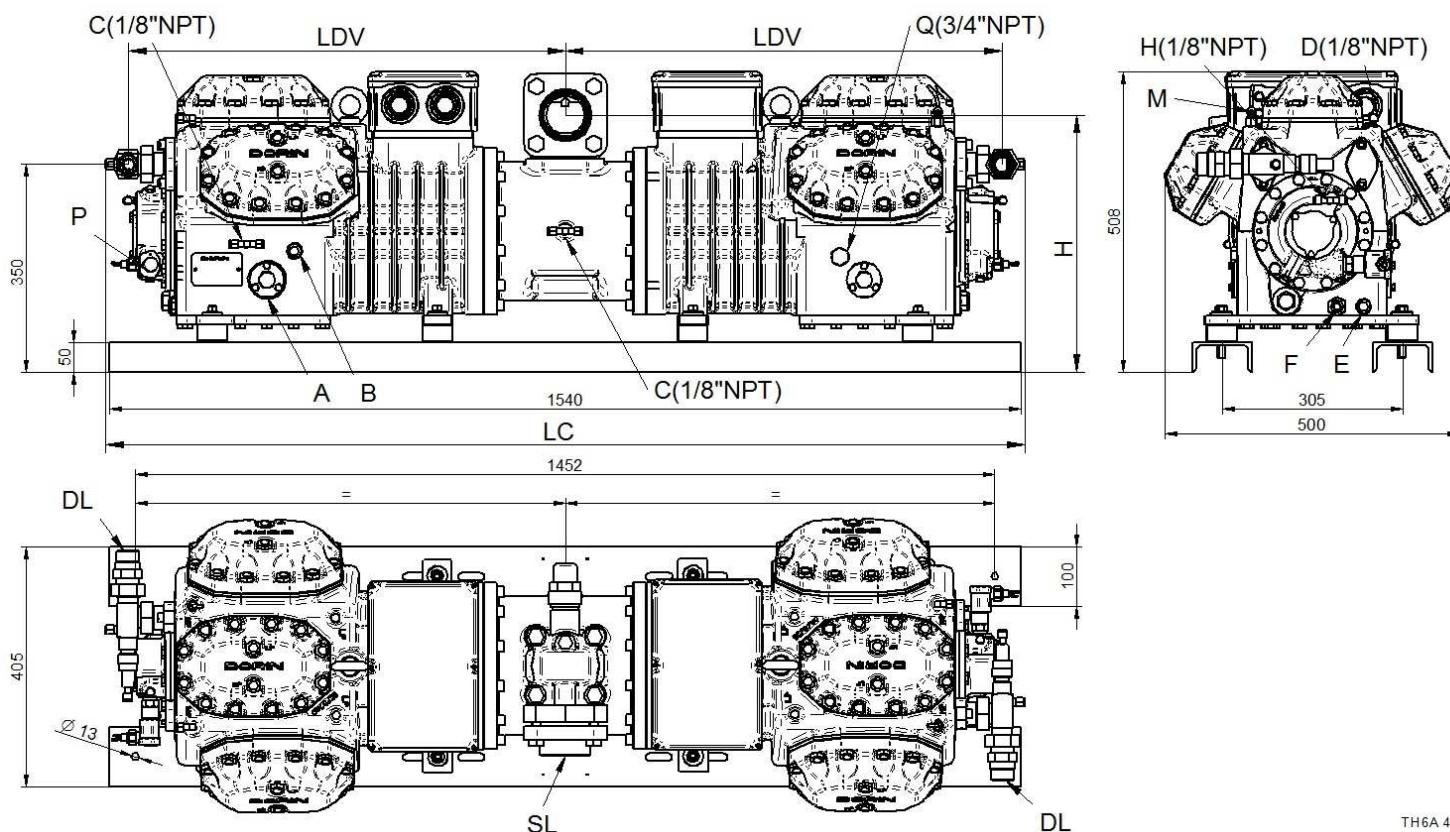
TH5CAT 3-7-14

A - Spia Olio B - Tappo carica Olio C - Presa Bassa Pres. D - Presa Alta Pres. E - Tappo scarica olio F - Resistenza carter H - Presa alta press. pompa M - Sens. max temp. mand. P - Press. diff. olio eletr. Q - Equalizzazione gas DL - Rubinetto Compressione SL - Rubinetto Aspirazione	A - Oil sight B - Oil charge plug C - Low pressure tap D - High pressure tap E - Oil drain plug F - Crankcase heater H - Oil pressure tap M - Max disch. temp. sensor P - Oil diff. pressure switch Q - Gas equalisation DL - Discharge service valve SL - Suction service valve	A - Voyant d'huile B - Bouchon charge huile C - Prise basse pression D - Prise haute pression E - Bouchon vidange d'huile F - Resistance carter H - Prise pression huile M - Sensor max temp. refoul. P - Press. diff. huile eletr. Q - Egalisation de gaz DL - Vanne de refoilement SL - Vanne aspiration	A - Ölschauglas B - Ölfüllstopfen C - Anschluss Niederdruck D - Anschluss Hochdruck E - Ötablaß F - Ölsumpfheizung H - Öldruckanschluss M - Druckgasfühler P - Ötdifferenzdruckschalter Q - Gasausgleich DL - Druckabsperventil SL - Saugabsperventil
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Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refolem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.	LC	LDV	---
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	[mm]	[mm]	---	
TH 6	TH 6000CS	H3000CS	227,5	80s	2 x 35s	8,5	491	380 - 420 / 3 / 50 440 - 480 / 3 / 60 PWS	2 x 60	2 x 245	IV	1555	740	---
	TH 7000CC	H3500CC	227,5	80s	2 x 35s	8,5	523		2 x 66	2 x 260	IV	1655	790	---
	TH 7000CS	H3500CS	255,0	80s	2 x 35s	8,5	487		2 x 60	2 x 245	IV	1555	740	---
	TH 8000CC	H4000CC	255,0	80s	2 x 35s	8,5	529		2 x 75	2 x 290	V	---	---	---
	TH 8000CS	H4000CS	276,7	80s	2 x 42s	8,5	519		2 x 66	2 x 260	V	---	---	---
	TH 9000CC	H4500CC	276,7	80s	2 x 42s	8,5	535		2 x 84	2 x 323	V	---	---	---
	TH 9000CS	H4500CS	307,0	80s	2 x 42s	8,5	537		2 x 75	2 x 290	V	---	---	---
	TH 10000CC	H5000CC	307,0	80s	2 x 42s	8,5	537		2 x 93	2 x 358	V	---	---	---

Figura / Figure / Figure / Abbildung IV

TH 6



TH6A 4-7-14

A - Spia Olio  
B - Tappo carica Olio  
C - Presa Bassa Pres.  
D - Presa Alta Pres.  
E - Tappo scarica olio  
F - Resistenza carter  
H - Presa alta press. pompa  
M - Sens. max temp. mand.  
P - Press. diff. olio eletr.  
Q - Equalizzazione gas  
DL - Rubinetto Compressione  
SL - Rubinetto Aspirazione

A - Oil sight  
B - Oil charge plug  
C - Low pressure tap  
D - High pressure tap  
E - Oil drain plug  
F - Crankcase heater  
H - Oil pressure tap  
M - Max disch. temp. sensor  
P - Oil diff. pressure switch  
Q - Gas equalisation  
DL - Discharge service valve  
SL - Suction service valve

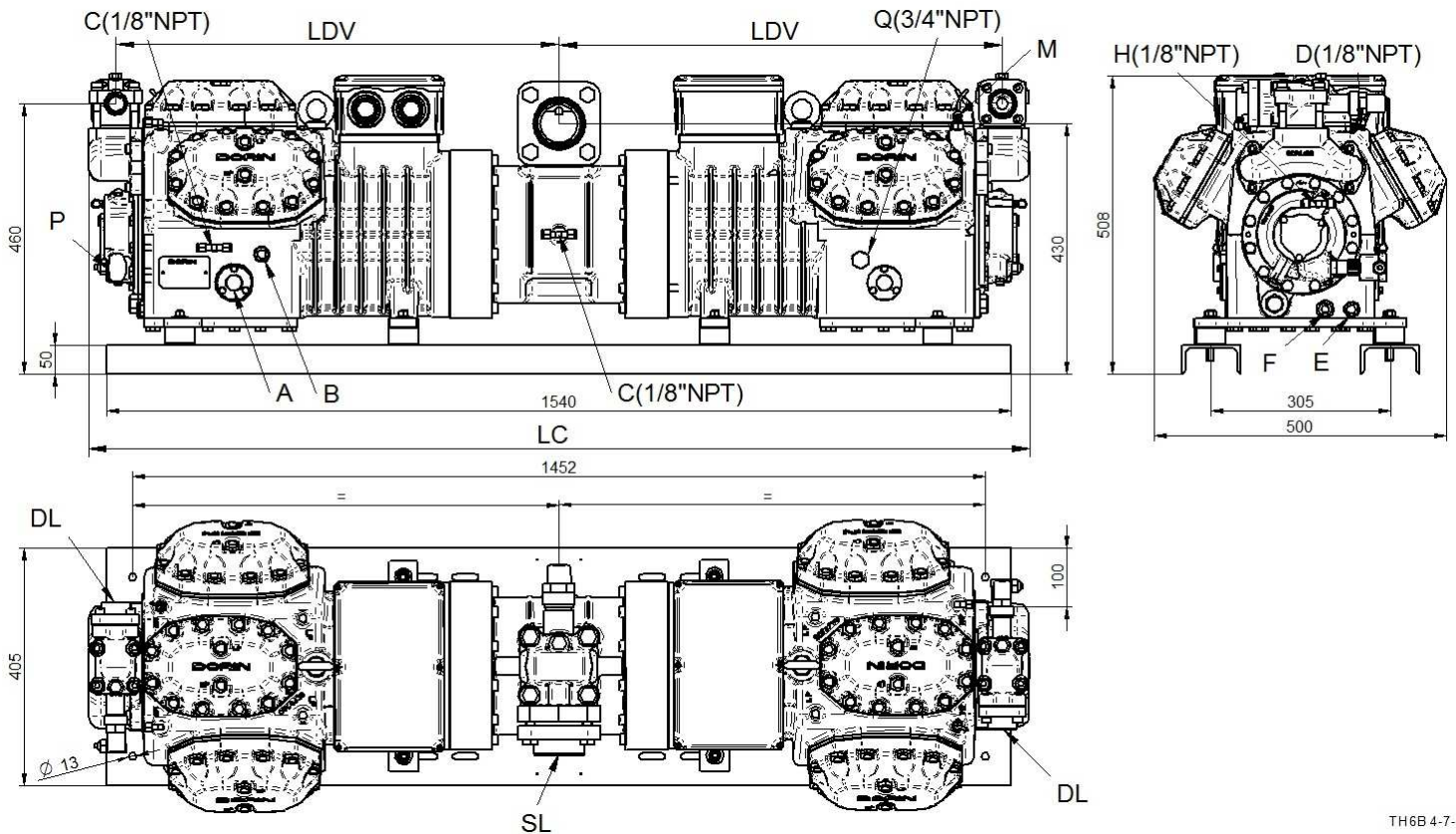
A - Voyant d'huile  
B - Bouchon charge huile  
C - Prise basse pression  
D - Prise haute pression  
E - Bouchon vidange d'huile  
F - Resistance carter  
H - Prise pression huile  
M - Sensor max temp. refoul.  
P - Press. diff. huile électron.  
Q - Egalisation de gaz  
DL - Vanne de refolement  
SL - Vanne aspiration

A - Ölschauglas  
B - Ölfüllstopfen  
C - Anschluss Niederdruck  
D - Anschluss Hochdruck  
E - Ötablaß  
F - Ölsumpfheizung  
H - Öldruckanschluss  
M - Druckgasfühler  
P - Ötdifferenzdruckschalter  
Q - Gasausgleich  
DL - Druckabsperventil  
SL - Saugabsperventil

Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refoilem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.	LC	LDV	---
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	[mm]	[mm]	---	
TH 6	TH 6000CS	H3000CS	227,5	80s	2 x 35s	8,5	491	380 - 420 / 3 / 50 440 - 480 / 3 / 60 PWS	2 x 60	2 x 245	IV	1555	740	---
	TH 7000CC	H3500CC	227,5	80s	2 x 35s	8,5	523		2 x 66	2 x 260	IV	1655	790	---
	TH 7000CS	H3500CS	255,0	80s	2 x 35s	8,5	487		2 x 60	2 x 245	IV	1555	740	---
	TH 8000CC	H4000CC	255,0	80s	2 x 35s	8,5	529		2 x 75	2 x 290	V	---	---	---
	TH 8000CS	H4000CS	276,7	80s	2 x 42s	8,5	519		2 x 66	2 x 260	V	---	---	---
	TH 9000CC	H4500CC	276,7	80s	2 x 42s	8,5	535		2 x 84	2 x 323	V	---	---	---
	TH 9000CS	H4500CS	307,0	80s	2 x 42s	8,5	537		2 x 75	2 x 290	V	---	---	---
	TH 10000CC	H5000CC	307,0	80s	2 x 42s	8,5	537		2 x 93	2 x 358	V	---	---	---

Figura / Figure / Figure / Abbildung V

**TH 6**



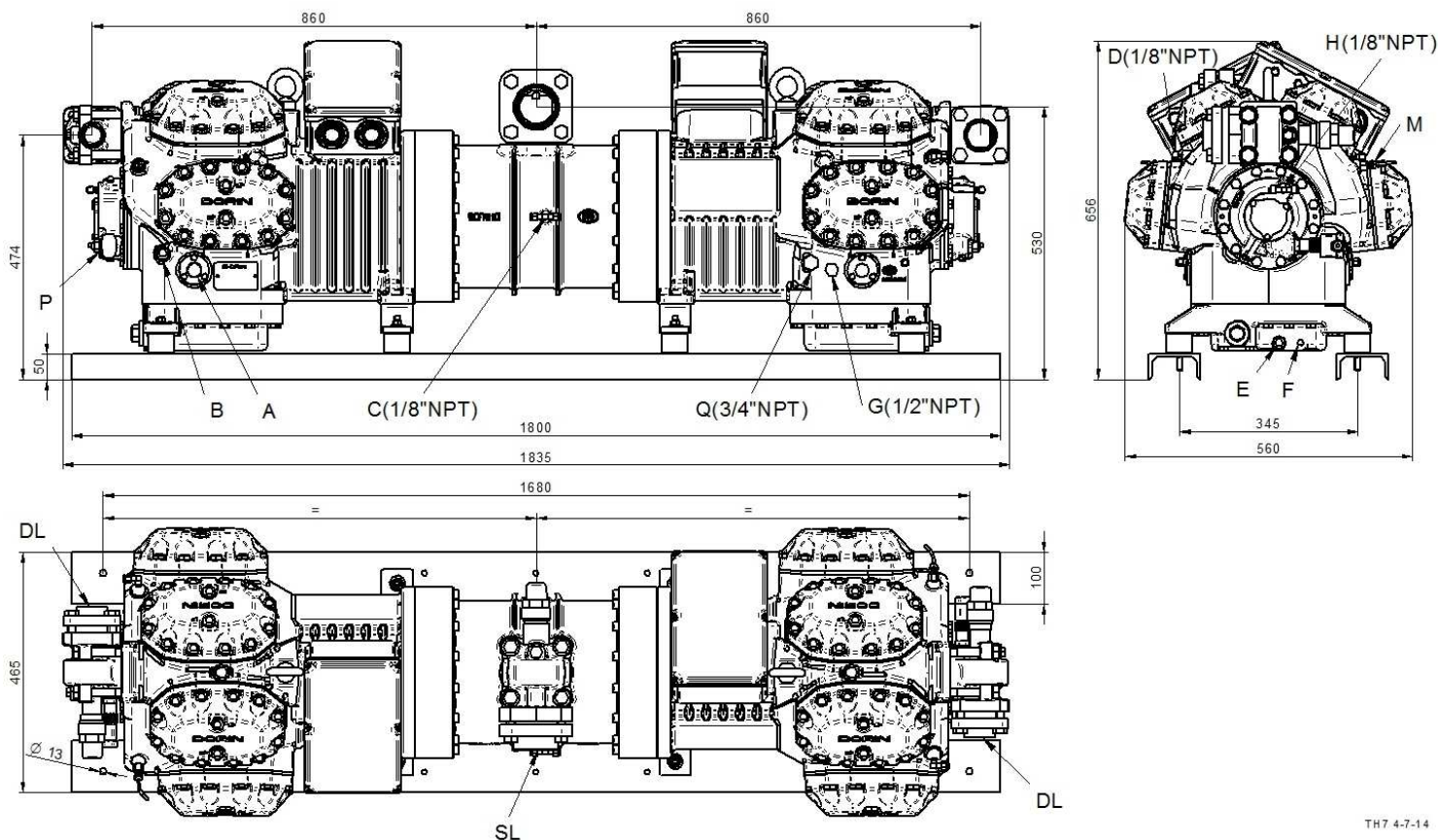
TH6B 4-7-14

A - Spia Olio B - Tappo carica Olio C - Presa Bassa Pres. D - Presa Alta Pres. E - Tappo scarica olio F - Resistenza carter H - Presa alta press. pompa M - Sens. max temp. mand. P - Press. diff. olio eletr. Q - Equalizzazione gas DL - Rubinetto Compressione SL - Rubinetto Aspirazione	A - Oil sight B - Oil charge plug C - Low pressure tap D - High pressure tap E - Oil drain plug F - Crankcase heater H - Oil pressure tap M - Max disch. temp. sensor P - Oil diff. pressure switch Q - Gas equalisation DL - Discharge service valve SL - Suction service valve	A - Voyant d'huile B - Bouchon charge huile C - Prise basse pression D - Prise haute pression E - Bouchon vidange d'huile F - Resistance carter H - Prise pression huile M - Sensor max temp. refoul. P - Press. diff. huile électron. Q - Egalisation de gaz DL - Vanne de refoilement SL - Vanne aspiration	A - Ölschauglas B - Ölfüllstopfen C - Anschluss Niederdruck D - Anschluss Hochdruck E - Ötablaß F - Ölsumpfheizung H - Öldruckanschluss M - Druckgasfühler P - Öldifferenzdruckschalter Q - Gasausgleich DL - Druckabsperventil SL - Saugabsperventil
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Serie Range Serie Serie	Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Vol. Spost. Displacem. Vol. bal. Fördervol. @ 50 Hz	Aspiraz. Suction Aspiration Saugventil	Scarico Discharge Refoilem. Druckventil	Car. olio Oil charge Ch. huile Ölfüllung	Peso netto Net weight Poids net Nettogew.	Tensione Voltage Tension Spannung	Max corr. di funz. Max oper. curr. Max int. de fonct. Max Betriebsstr.	Corr. rotore blocc. Locked rotor curr. Cour. rotor bloqué Anlaufstrom	Figura Figure Figure Abbild.	---	---	---
			[m <sup>3</sup> /h]	SL [mm]	DL [mm]	[kg]	[kg]	[V]	[A]	[A]	---	---	---	
TH 7	TH 1000CS	H5000CS	328,6	80s	2 x 42s	19,0	737	380 - 420 / 3 / 50 440 - 480 / 3 / 60 PMS	2 x 90	2 x 367	VI	---	---	---
	TH 11000CC	H5500CC	328,6	80s	2 x 42s	19,0	747		2 x 105	2 x 455	VI	---	---	---
	TH 11000CS	H5500CS	368,4	80s	2 x 42s	19,0	737		2 x 105	2 x 455	VI	---	---	---
	TH 12000CC	H6000CC	368,4	80s	2 x 42s	19,0	747		2 x 120	2 x 544	VI	---	---	---
	TH 12000CS	H6000CS	399,7	80s	2 x 42s	19,0	747		2 x 105	2 x 455	VI	---	---	---
	TH 15000CC	H7500CC	399,7	80s	2 x 42s	19,0	751		2 x 148	2 x 584	VI	---	---	---
	TH 15001CS	H7501CS	443,5	80s	2 x 54s	19,0	747		2 x 120	2 x 544	VI	---	---	---
	TH 16001CC	H8001CC	443,5	80s	2 x 54s	19,0	751		2 x 148	2 x 584	VI	---	---	---
	TH 16000CS	H8000CS	489,6	80s	2 x 54s	19,0	757		2 x 120	2 x 544	VI	---	---	---
	TH 18000CC	H9000CC	489,6	80s	2 x 54s	19,0	769		2 x 148	2 x 584	VI	---	---	---

## Figura / Figure / Figure / Abbildung VI

## TH 7



TH7 4-7-14

A - Spia Olio  
B - Tappo carica Olio  
C - Presa Bassa Pres.  
D - Presa Alta Pres.  
E - Tappo scarica olio  
F - Resistenza carter  
H - Presa alta press. pompa  
M - Sens. max temp. mand.  
P - Press. diff. olio eletr.  
Q - Equalizzazione gas  
DL - Rubinetto Compressione  
SL - Rubinetto Aspirazione

A - Oil sight  
B - Oil charge plug  
C - Low pressure tap  
D - High pressure tap  
E - Oil drain plug  
F - Crankcase heater  
H - Oil pressure tap  
M - Max disch. temp. sensor  
P - Oil diff. pressure switch  
Q - Gas equalisation  
DL - Discharge service valve  
SL - Suction service valve

A - Voyant d'huile  
B - Bouchon charge huile  
C - Prise basse pression  
D - Prise haute pression  
E - Bouchon vidange d'huile  
F - Resistance carter  
H - Prise pression huile  
M - Sensor max temp. refoul.  
P - Press. diff. huile électron.  
Q - Egalisation de gaz  
DL - Vanne de refoilement  
SL - Vanne aspiration

A - Ölschauglas  
B - Ölfüllstopfen  
C - Anschluss Niederdruck  
D - Anschluss Hochdruck  
E - Ötablaß  
F - Ölsumpfheizung  
H - Öldruckanschluss  
M - Druckgasfühler  
P - Ötdifferenzdruckschalter  
Q - Gasausgleich  
DL - Druckabsperventil  
SL - Saugabsperventil

### LA GAMMA DI COMPRESSORI T-HI

Visti gli indubbi vantaggi derivanti dall'impiego della tecnologia INVERTER, DORIN ha sviluppato una gamma di compressori tandem che perfettamente si adattano a lavorare con tale tecnologia (sono due compressori, l'uno adibito al funzionamento con inverter, l'altro al funzionamento standard di tipo on-off).

In più alle caratteristiche proprie dei compressori HI, tali macchine hanno:

- specifico collettore di aspirazione per mantenere un'adeguata equalizzazione delle pressioni e del lubrificante all'interno dei due compressori in qualunque velocità e condizioni di funzionamento,
- linea di mandata comune ai compressori con valvola di ritegno sul compressore STD.

### COLLEGAMENTO ELETTRICO

Attenzione, generalmente il collegamento elettrico dei due compressori è diverso.

- ✓ Compressore HI: collegamento a triangolo
- ✓ Compressore STD: collegamento per alimentazione a 400 V (vedere catalogo SE).

Di seguito la gamma di compressori della gamma T-HI.

### T-HI COMPRESSOR RANGE

Since INVERTER applications show significant advantages, DORIN has developed the so-called "TANDEM" configuration that are perfectly suitable to be coupled with INVERTERS (the tandem is a coupling between a standard compressor and an inverter driven compressor).

Additionally to the characteristics related to HI compressors, the THI solution are equipped with:

- enhanced suction joint for lubricant and pressure equalization inside two compressors at whatever speed and working conditions,
- common compressors discharge line with check valve on STD compressors.

### ELECTRICAL CONNECTION

Be aware: in general the electrical connection of the compressors is different.

- ✓ HI compressor: delta connected
- ✓ STD compressor: connection for current at 400 V net (refer to SE catalogue).

Here follows standard T-HI compressor list.

### LA GAMME DES COMPRESSEURS T-HI

Compte tenu de l'incontestable avantage de la technologie avec convertisseur de fréquence, Dorin a élaboré une gamme de compresseurs semi-hermétiques qui sont parfaitement adaptés pour travailler avec ces technologies (le TANDEM est une connexion parallèle entre deux compresseurs: un conçu pour fonctionner avec convertisseur de fréquence, l'autre pour le fonctionnement standard on-off).

En plus des caractéristiques spécifiques de compresseurs HI, ces machines ont:

- spécifique collecteur d'aspiration pour maintenir la correcte égalisation de la pression et du lubrifiant dans les deux compresseurs à toutes les vitesses et les conditions de fonctionnement,
- ligne de compression commune aux compresseurs avec soupape de retenue sur le compresseur STD.

### CONNEXION ÉLECTRIQUE

Attention, en général la connexion électrique des deux compresseurs est différente.

- ✓ Compresseur HI: groupement à triangle
- ✓ Compresseur STD: groupement pour power relais 400 V (ref. catalogue SE).

Voici la gamme standard des compresseurs de la gamme T-HI.

### VERDICHTEREN SERIE T-HI

Angesichts der unbestreitbaren Vorteil dieser Art von Technologie, Dorin hat eine Reihe von Halbhermetische Verdichter, die perfekt für die Arbeit mit Technologien Frequenzumrichter (die Tandem ist eine Kopplung zwischen eine für den Betrieb mit Frequenzumrichter, die andere für den Standard-on-off).

Neben den spezifischen Merkmalen Verdichteren HI, diese Maschinen sind:

- spezifische Kollektor Streben um die ordnungsgemäße Angleichung der Druck-und Schmiermittel in beiden Verdichteren bei allen Geschwindigkeiten und die Voraussetzungen für den Betrieb,
- Druckleitung mit Rückschlagventil auf dem standard Verdichter.

### ELEKTRISCHER ANSCHLUSS

Achtung, in der Regel die elektrische Verbindung der beiden Verdichteren unterscheidet.

- ✓ Verdichter HI: Cluster Dreieck
- ✓ Verdichter STD: Vereinigung für Power Relais 400 V (ref Katalog SE).

Hier ist die Standard-Verdichteren der Serie T-HI.

GAMMA T-HI / T-HI RANGE / T-HI SÉRIE / T-HI SERIE								
Modello Model Modèle Typ	Compressori Compressors Compresseurs Verdichter	Hz	Volume Spost. Swept Vol. Volume bal. Fördervolumen [m <sup>3</sup> /h]		Aspirazione Suction Aspiration Saugventil SL [mm]	Scarico Discharge Refolement Druckventil DL [mm]	Carica Olio Oil Charge Charge huile Öfüllung [kg]	Peso Netto Net Weight Poids net Nettogewicht [kg]
			20 Hz	90*+50 Hz				
			T-HI301CC	HI 151CC + H 151CC				
T-HI501CC	HI 241CC + H 251CC	(20/90)-50	3,81	27,75	28s	18s	2	102
T-HI711CC	HI 361CC + H 361CC	(20/90)-50	5,40	37,80	35s	22s	5	225
T-HI821CC	HI 421CC + H 421CC	(20/90)-50	6,48	45,33	35s	22s	5	225
T-HI901CC	HI 451CC + H 451CC	(20/90)-50	7,72	54,01	35s	22s	5	225
T-HI1101CC	HI 551CC + H 551CC	(20/90)-50	9,25	64,76	42s	22s	5	226
T-HI1401CC	HI 701CC + H 701CC	(20/90)-50	10,93	76,52	42s	28s	5	228
T-HI1501CC	HI 751CC + H 751CC	(20/90)-50	12,75	89,26	42s	28s	5	230
T-HI2001CC	HI 1201CC* + H 1201CC	(20/75)-50	17,12	107,03	42s	28s	6	311
T-HI3001CC	HI 1501CC* + H 1501CC	(20/75)-50	19,53	122,05	54s	28s	6	323

\* - massima frequenza ammissibile / max allowable frequency / fréquence max admissible / max zulässige Frequenz = 75Hz



**DESCRIZIONE DEL CALCOLO DELLE PRESTAZIONI DEI COMPRESSORI DELLA GAMMA T-HI**

E' possibile ottenere la resa frigorifera generata dai compressori della gamma T-HI sommando la resa frigorifera dei due compressori quando il compressore STD è in funzionamento. Le prestazioni del compressore HI devono essere valutate al regime di rotazione di interesse.

Se il compressore STD è spento, la resa frigorifera è determinata dal solo compressore inverter.

Di seguito sono illustrati due esempi di calcolo:

- minima potenza erogabile: compressore STD spento, compressore HI in funzione a 20 Hz; resa frigorifera determinata dal solo compressore HI.

- massima potenza erogabile: compressore STD acceso, compressore HI in funzione a 90 Hz (75 Hz per HI1201CC e HI1501CC): resa frigorifera determinata dalla somma delle rese dei singoli compressori.

Di seguito si riporta un esempio di selezione di un compressore T-HI.

Refrigerante R404A temperatura evaporazione -10°C, temperatura di condensazione 45°C, resa frigorifera richiesta 40 kW:

Modello selezionato T-HI1501CC: compressore STD acceso, 16.03 kW, compressore inverter @ 80 Hz, 23.97 kW.

**DESCRIPTION OF T-HI PERFORMANCES CALCULATION**

The T-HI cooling capacity is obtained summing the cooling capacity of both compressor when the STD compressor is running. The HI compressor performances have to be evaluated at the speed rotation of interest.

If the STD compressor is switched off, the cooling capacity is determined by the only HI compressor cooling capacity.

Following two examples of performances calculation are shown:

- minimum cooling capacity: STD compressor switched off, HI compressor rotating at 20 Hz: cooling capacity determined by only the HI compressor.

- maximum cooling capacity: STD compressor switched on, HI compressor rotating at 90 Hz (75 Hz for HI1201CC and HI1501CC): cooling capacity determined by the sum of both compressor cooling capacity.

Here you find a T-HI selection example.

Refrigerant R404A, evaporating temperature -10°C, condensing temperature 45°C, cooling capacity required 40 kW:

Selected model: T-HI1501CC: STD compressor switched on, 16.03 kW, inverter compressor @ 80 Hz, 23.97 kW.

**DESCRIPTION DU CALCUL DES PERFORMANCES DE LA GAMME DE COMPRESSEURS T-HI**

On peut obtenir la puissance frigorifique généré par les compresseurs de la gamme T-HI résumant la puissance des deux compresseurs lorsque le compresseur STD est en marche. La performance du compresseur HI doivent être évalués à la fréquence de l'intérêt. Si le compresseur STD est hors tension, la puissance frigorifique est déterminé seulement par le compresseur avec convertisseur de fréquence. Vous trouverez ci-dessous illustré deux exemples de calcul:

- minimum de puissance: compresseur STD off, compresseur HI en fonction à 20 Hz; puissance déterminé seulement par le compresseur HI

- puissance maximale: compresseur STD en tension, compresseur HI en fonction à 90 Hz (75 Hz pour HI1201CC et HI1501CC): la puissance frigorifique est déterminé par la somme des puissances des différents compresseurs.

Voici un exemple de sélection d'un compresseur T-HI.

Réfrigérant R404A température d'évaporation -10°C, température de condensation 45°C, puissance frigorifique demandé 40 kW:

Sélection de T-HI1501CC: compresseur STD en tension, 16.03 kW, compresseur avec convertisseur de fréquence en rotation à 80 Hz, 23.97 kW.

**BESCHREIBUNG DER BERECHNUNG DER ERGEBNISSE DER REIHE VON VERDICHTEREN T-HI**

Man kann die Kühlleistung durch die Verdichteren der Serie T-HI Zusammenfassung der Leistung der beiden Verdichteren, wenn der Verdichter STD ist. Die Leistung des Verdichters HI bewertet werden müssen, in der Frequenz von Bedeutung.

STD, wenn der Verdichter ausgeschaltet ist, die Kühlleistung wird nur durch den Verdichter mit Frequenzumrichter.

Hier finden Sie zeigt zwei Beispiele für die Berechnung:

- Minimum an Energie: Verdichter STD off, Verdichter HI je 20 Hz, Leistung nur bestimmt durch den Verdichter HI

- Leistung: Verdichter STD Spannung, Verdichter HI je bei 90 Hz (75 Hz HI1201CC und HI1501CC): Die Kühlleistung wird durch die Summe der Leistungen der einzelnen Verdichteren.

Hier ist ein Beispiel für die Auswahl eines Verdichter T-HI:

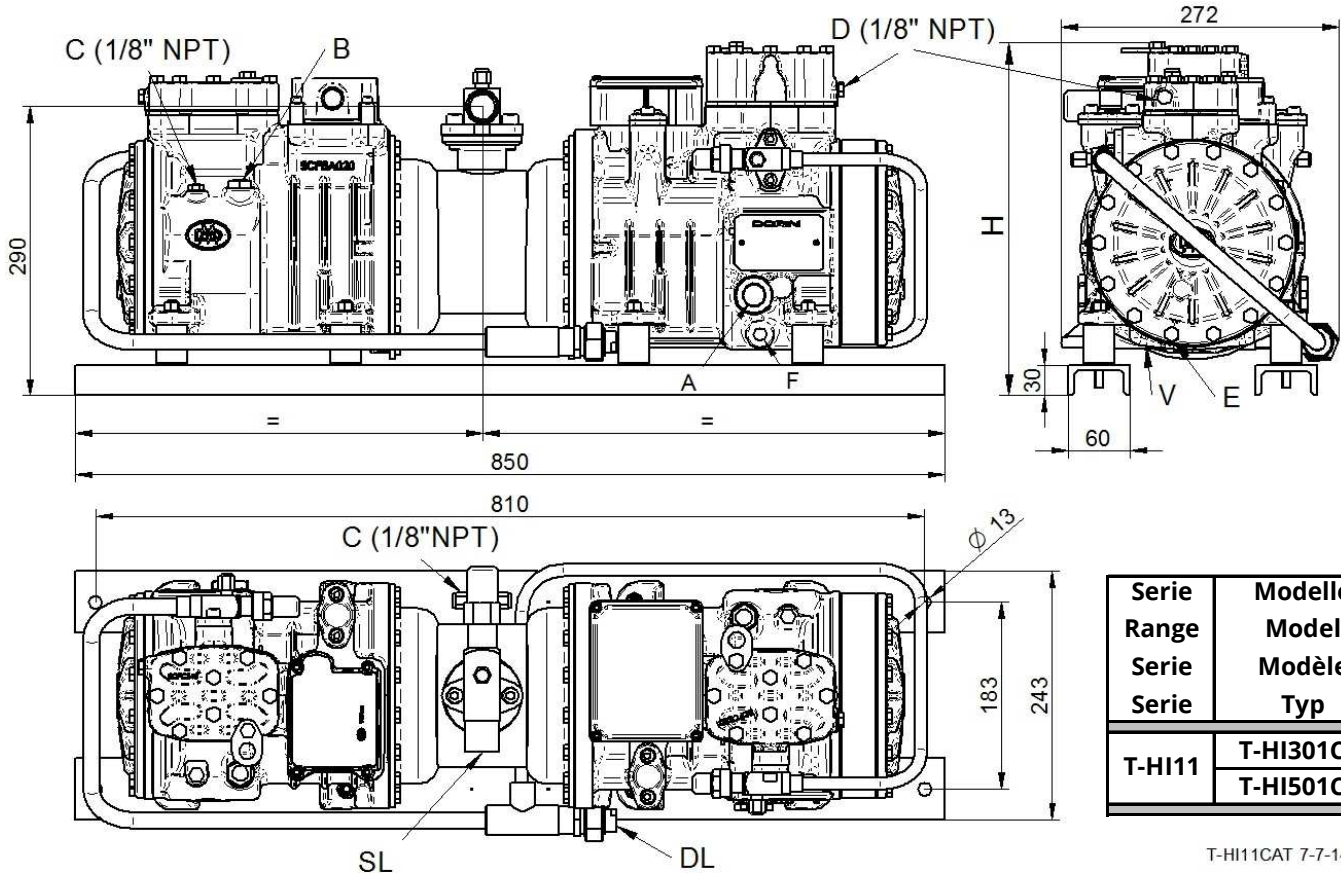
Kältemittel R404A Verdampfungstemperatur -10°C, Kondensation 45°C, Kälteleistung 40 kW gefragt:

Auswahl von T-HI1501CC: Verdichter STD Spannung, 16.03 kW, Verdichter mit Frequenzumrichter in Rotation bei 80 Hz, 23.97 kW.

esempio di calcolo prestazioni - performaces calculation example						
exemple de calcul de performances - Leistungsdaten Rechenbeispiel						
R404A	HI @ 20 Hz - STD OFF			HI @ 90 Hz - STD ON		
Te/Tc	-35/40	-10/45	+5/50	-35/40	-10/45	+5/50
T-HI301CC	0,38	1,19	---	2,62	8,37	---
T-HI501CC	0,60	1,77	2,63	4,28	12,47	19,39
T-HI711CC	0,69	2,38	3,41	5,09	16,73	25,82
T-HI821CC	0,83	2,86	4,09	6,11	20,07	30,97
T-HI901CC	0,99	3,42	4,90	7,32	24,03	37,08
T-HI1101CC	1,35	4,39	6,13	9,99	30,88	45,91
T-HI1401CC	1,62	5,06	6,96	12,06	35,63	52,45
T-HI1501CC	1,92	5,97	8,52	14,21	42,06	63,05
T-HI2001CC	2,66	8,36	11,57	21,26	52,39	98,73
T-HI3001CC	3,15	9,58	13,30	25,17	60,07	115,78

\* HI @ 75 Hz - STD ON

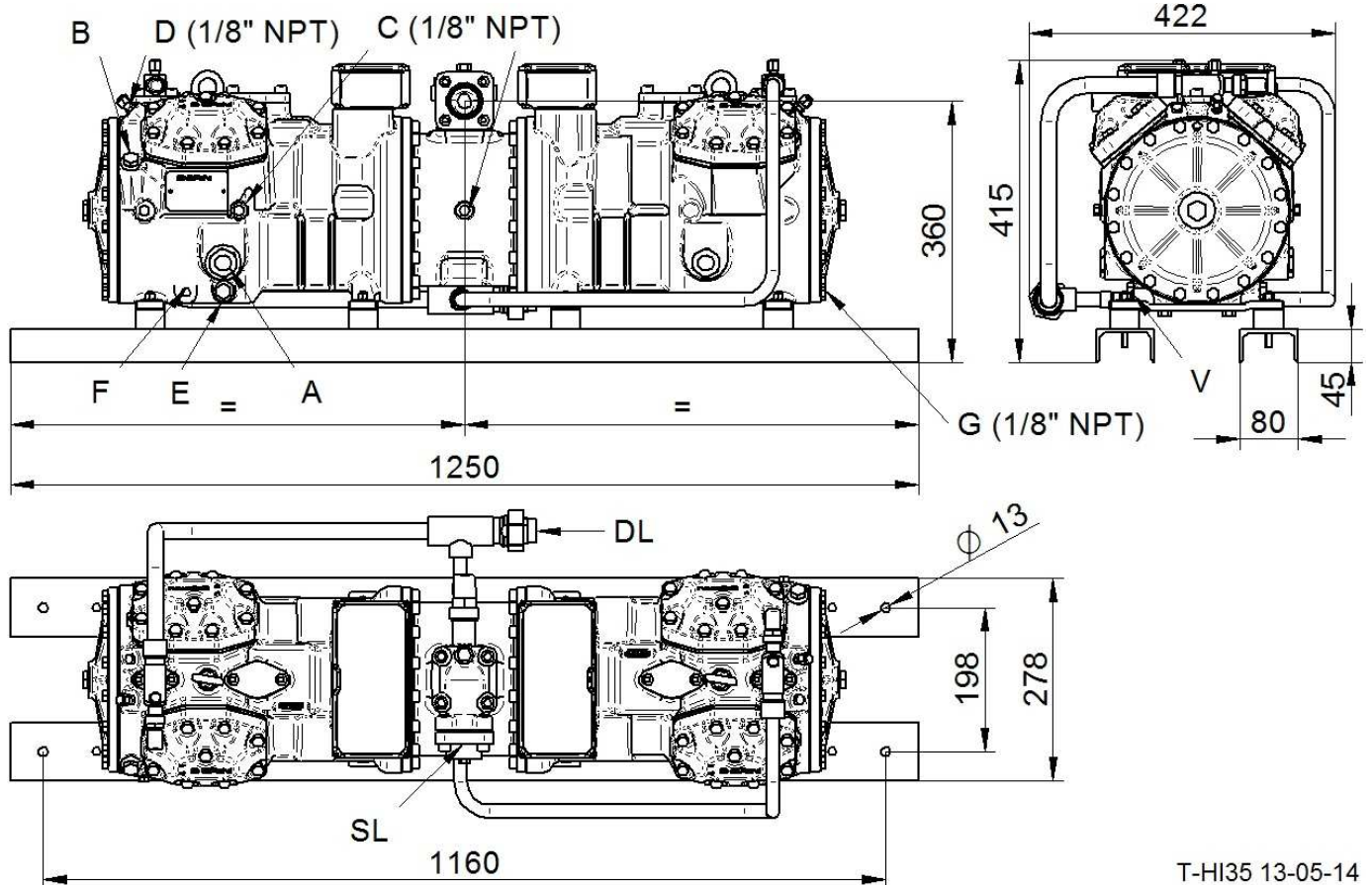
# T-HI11



Serie	Modello	H
Range	Model	
Serie	Modèle	[mm]
Serie	Typ	
T-HI11	T-HI301CC	337
	T-HI501CC	345

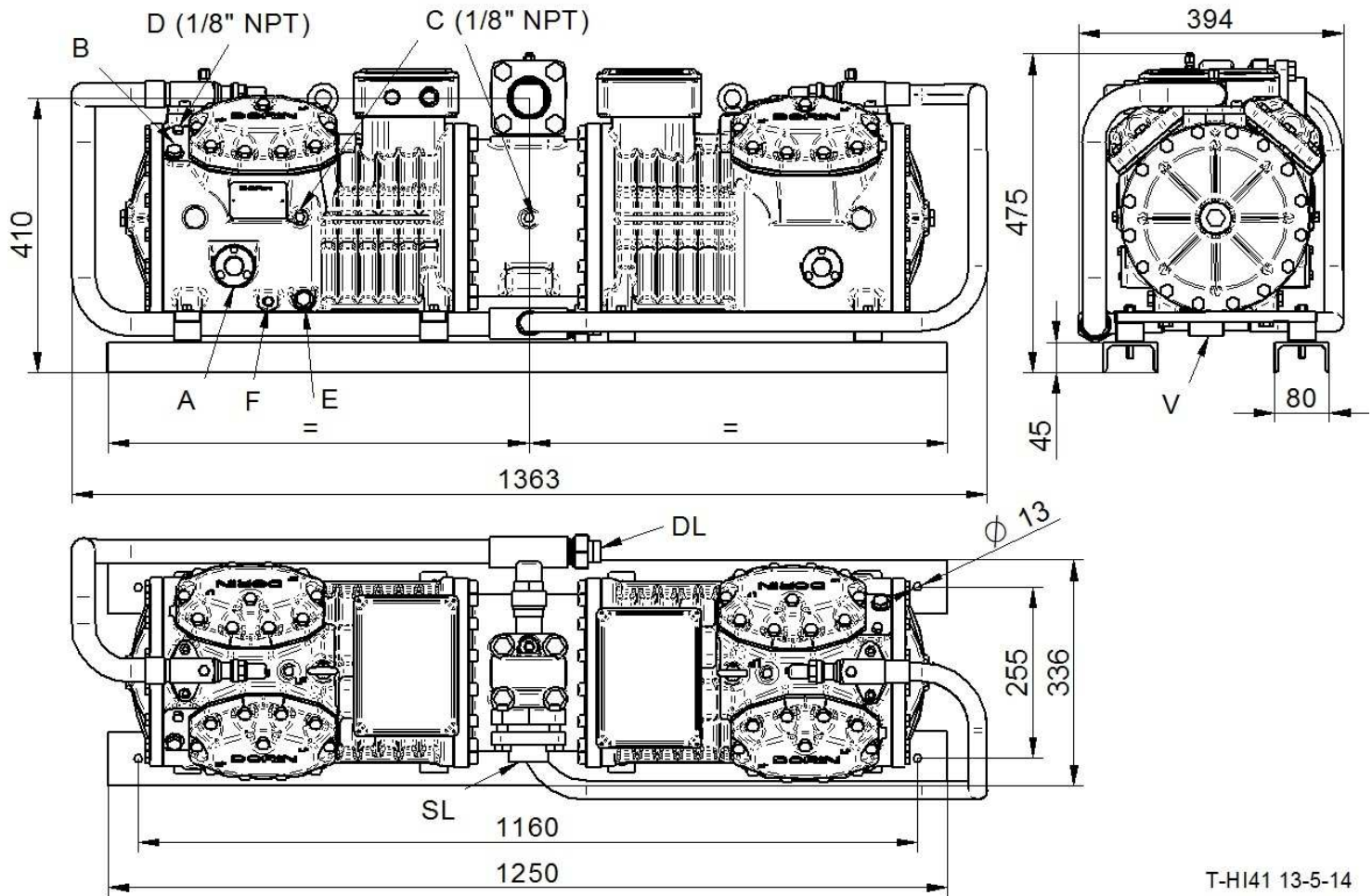
T-HI11CAT 7-7-14

# T-HI35



T-HI35 13-05-14

# T-HI41



T-HI41 13-5-14

A - Spia Olio  
B - Tappo carica Olio  
C - Presa Bassa Pres.  
D - Presa Alta Pres.  
E - Tappo scarica olio  
F - Resistenza carter  
V - Valvola di ritegno  
DL - Rubinetto Compressione  
SL - Rubinetto Aspirazione

A - Oil sight  
B - Oil charge plug  
C - Low pressure tap  
D - High pressure tap  
E - Oil drain plug  
F - Crankcase heater  
V - Check valve  
DL - Discharge service valve  
SL - Suction service valve

A - Voyant d'huile  
B - Bouchon charge huile  
C - Prise basse pression  
D - Prise haute pression  
E - Bouchon vidange d'huile  
F - Resistance carter  
V - Clapet de non-retour  
DL - Vanne de refoulement  
SL - Vanne aspiration

A - Ölschauglas  
B - Öfüllstopfen  
C - Anschluss Niederdruck  
D - Anschluss Hochdruck  
E - Öltaß  
F - Ölsumpfheizung  
V - Kugelrückschlagventil  
DL - Druckabsperrentil  
SL - Saugabsperrentil



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