

Reversible heat-pumps **HNR series**, scroll compressors, R410A / R32 / R454B refrigerant, coaxial evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard.

Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operation reliability



TECHNICAL DATA

PERFORMANCES		Model	016	018	022	025	030	038	045	055
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	15,1	18,1	22,8	26,0	31,2	38,1	46,4	57,7
TOTAL NOMINAL ABSORBED POWER		kW	6,5	7,3	9,1	10,0	11,1	14,1	16,1	19,5
COP		kW/kW	2,34	2,47	2,51	2,60	2,80	2,70	2,89	2,95
SCOP (3)		-	2,02	2,13	2,17	2,24	2,49	2,45	2,87	2,93
NOMINAL WATER FLOW		m ³ /h	2,6	3,1	3,9	4,5	5,4	6,6	8,0	9,9
MECHANICAL MODE PRESSURE DROPS (4)		kPa	16	22	17	33	24	34	39	51
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP	nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)	m ³ /h	1,2÷2,9	2,5÷5	3÷6	3÷6	4÷6	5÷12	6÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)	BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (5)	dm ³	50	110	110	110	270	270	270	270	270
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)	liters	5	8	8	8	12	12	12	12	12
FAN SECTION (AXIAL)										
FANS	nr.	1	1	1	1	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,49	0,68	0,81	0,81	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	2,36	3,00	1,54	1,54	2,82	3,08	2,82	3,08
TOTAL AIR FLOW	m ³ /h	4669	6453	7500	7500	15298	16200	14267	15000	
TOTAL ELECTRIC DATA										
ELECTRICAL FEED	V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)	A	14,2	16,8	18,3	20,5	24,4	31,8	37,1	45,5	
MAXIMUM PEAK CURRENT (L.R.A) (6)	A	68,1	79,8	98,9	114,9	123,2	147,3	181,1	248,1	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)	A	NA	NA	NA	NA	NA	NA	NA	NA	
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)	dB(A)	48,0	49,5	49,9	50,9	53,5	53,2	54,3	56,6	
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)	dB(A)	NA	NA	NA	NA	53,0	52,2	53,3	53,9	
DIMENSIONS AND WEIGHT										
LENGTH	mm	820	1010	1010	1010	1610	1610	1610	1610	
WIDTH	mm	615	720	720	720	860	860	860	860	
HEIGHT	mm	1360	1580	1420	1585	1380	1380	1380	1380	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)	kg	190	230	247	250	374	384	397	417	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)	kg	240	360	376	379	673	683	696	716	

The manufacturer reserves the right to modify specifications without notice.

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

- (1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
- (2) Available pressure can be calculated from Hitema Online Selection Software
- (3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
- (4) Pressure drops taken in account: evaporator, valves, piping
- (5) Water flow is different from heating mode, assuming that an inverter pump will be used
- (6) Data referred to standard chiller configuration WP (single pump P3) and AC fans
- (7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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 **HEATING**

TECHNICAL DATA

PERFORMANCES		Model	061	070	075	090	100
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	60,5	69,0	77,4	91,3	104,2
TOTAL NOMINAL ABSORBED POWER		kW	21,9	24,9	27,0	30,7	34,2
COP		kW/kW	2,76	2,77	2,87	2,97	3,04
SCOP (3)		-	2,83	2,84	2,80	2,90	3,14
NOMINAL WATER FLOW		m ³ /h	10,4	11,8	13,3	15,7	17,9
MECHANICAL MODE PRESSURE DROPS (4)		kPa	23	20	20	28	39
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP	nr.	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	
HYDRAULIC SECTION							
WATER FLOW RANGE (6)	m ³ /h	8÷18	9,5÷20	10÷20	10÷20	10÷20	
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)	BSP / DN	2"	2"	2"	2"	2"	
TANK VOLUME (5)	dm ³	410	410	410	410	410	
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)	liters	19	19	19	19	19	
FAN SECTION (AXIAL)							
FANS	nr.	2	2	2	2	2	
MAXIMUM FANS ABSORBED POWER	AC	kW	2,50	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	4,96	7,80	7,80	7,80	7,80
TOTAL AIR FLOW	m ³ /h	24541	36858	36858	34534	32211	
TOTAL ELECTRIC DATA							
ELECTRICAL FEED	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
MAXIMUM ABSORBED CURRENT (F.L.A) (6)	A	48,0	56,1	61,4	72,4	80,6	
MAXIMUM PEAK CURRENT (L.R.A) (6)	A	146,7	171,6	176,9	216,4	283,2	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)	A	123,1	143,6	148,9	181,6	235,0	
NOISE DATA							
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)	dB(A)	57,0	55,3	55,6	56,4	58,3	
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)	dB(A)	56,5	54,3	54,4	55,2	56,1	
DIMENSIONS AND WEIGHT							
LENGTH	mm	2220	2220	2220	2220	2220	
WIDTH	mm	1100	1100	1100	1100	1100	
HEIGHT	mm	1900	1900	1900	1900	1900	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)	kg	780	787	797	806	864	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)	kg	1198	1205	1215	1224	1281	

The manufacturer reserves the right to modify specifications without notice.

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

- (1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
- (2) Available pressure can be calculated from Hitema Online Selection Software
- (3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
- (4) Pressure drops taken in account: evaporator, valves, piping
- (5) Water flow is different from heating mode, assuming that an inverter pump will be used
- (6) Data referred to standard chiller configuration WP (single pump P3) and AC fans
- (7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operation reliability



TECHNICAL DATA

PERFORMANCES		Model	016	018	022	025	030	038	045	055
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	13,7	16,2	20,6	23,3	28,2	34,2	42,7	53,0
TOTAL NOMINAL ABSORBED POWER		kW	6,3	7,2	8,9	9,9	10,6	14,5	15,5	19,6
EER		kW/kW	2,18	2,24	2,32	2,35	2,65	2,36	2,76	2,71
SEPR (HT) (3)		-	4,17	3,78	3,86	3,98	4,30	3,84	4,48	4,47
NOMINAL WATER FLOW (5)		m ³ /h	2,7	3,2	4,0	4,6	5,5	6,7	8,2	10,2
MECHANICAL MODE PRESSURE DROPS (4)		kPa	16	22	17	33	24	34	39	51
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP	nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)	m ³ /h	1,2÷2,9	2,5÷5	3÷6	3÷6	4÷6	5÷12	6÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)	BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (5)	dm ³	50	110	110	110	270	270	270	270	270
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)	liters	5	8	8	8	12	12	12	12	12
FAN SECTION (AXIAL)										
FANS	nr.	1	1	1	1	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,49	0,68	0,81	0,81	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	2,36	3,00	1,54	1,54	2,82	3,08	2,82	3,08
TOTAL AIR FLOW	m ³ /h	4669	6453	7500	7500	15298	16200	14267	15000	
TOTAL ELECTRIC DATA										
ELECTRICAL FEED	V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)	A	14,2	16,8	18,3	20,5	24,4	31,8	37,1	45,5	
MAXIMUM PEAK CURRENT (L.R.A) (6)	A	68,1	79,8	98,9	114,9	123,2	147,3	181,1	248,1	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)	A	NA	NA	NA	NA	NA	NA	NA	NA	
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)	dB(A)	48,0	49,5	49,9	50,9	53,5	53,2	54,3	56,6	
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)	dB(A)	NA	NA	NA	NA	53,0	52,2	53,3	53,9	
DIMENSIONS AND WEIGHT										
LENGTH	mm	820	1010	1010	1010	1610	1610	1610	1610	
WIDTH	mm	615	720	720	720	860	860	860	860	
HEIGHT	mm	1360	1580	1420	1585	1380	1380	1380	1380	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)	kg	190	230	247	250	374	384	397	417	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)	kg	240	360	376	379	673	683	696	716	

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Data referred to:

- (1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
- (2) Available pressure can be calculated from Hitema Online Selection Software
- (3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
- (4) Pressure drops taken in account: evaporator, valves, piping
- (5) Water flow is different from heating mode, assuming that an inverter pump will be used
- (6) Data referred to standard chiller configuration WP (single pump P3) and AC fans
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TECHNICAL DATA

PERFORMANCES		Model	061	070	075	090	100
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	55,4	63,0	69,9	83,3	95,6
TOTAL NOMINAL ABSORBED POWER		kW	21,3	24,4	27,0	30,4	33,7
EER		kW/kW	2,60	2,58	2,59	2,74	2,83
SEPR (HT) (3)		-	4,03	3,89	4,49	4,44	4,68
NOMINAL WATER FLOW (5)		m ³ /h	10,7	12,2	13,7	16,1	18,4
MECHANICAL MODE PRESSURE DROPS (4)		kPa	23	20	20	28	39
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP	nr.	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	
HYDRAULIC SECTION							
WATER FLOW RANGE (6)	m ³ /h	8÷18	9,5÷20	10÷20	10÷20	10÷20	
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)	BSP / DN	2"	2"	2"	2"	2"	
TANK VOLUME (5)	dm ³	410	410	410	410	410	
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)	liters	19	19	19	19	19	
FAN SECTION (AXIAL)							
FANS	nr.	2	2	2	2	2	
MAXIMUM FANS ABSORBED POWER	AC	kW	2,50	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	4,96	7,80	7,80	7,80	7,80
TOTAL AIR FLOW	m ³ /h	24541	36858	36858	34534	32211	
TOTAL ELECTRIC DATA							
ELECTRICAL FEED	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
MAXIMUM ABSORBED CURRENT (F.L.A) (6)	A	48,0	56,1	61,4	72,4	80,6	
MAXIMUM PEAK CURRENT (L.R.A) (6)	A	146,7	171,6	176,9	216,4	283,2	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)	A	123,1	143,6	148,9	181,6	235,0	
NOISE DATA							
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)	dB(A)	57,0	55,3	55,6	56,4	58,3	
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)	dB(A)	56,5	54,3	54,4	55,2	56,1	
DIMENSIONS AND WEIGHT							
LENGTH	mm	2220	2220	2220	2220	2220	
WIDTH	mm	1100	1100	1100	1100	1100	
HEIGHT	mm	1900	1900	1900	1900	1900	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)	kg	780	787	797	806	864	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)	kg	1198	1205	1215	1224	1281	

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