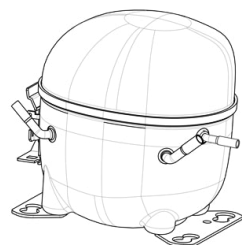


VNEK213U



ENGINEERING CODE
860AX71



REFRIGERANT
R-290



POWER SUPPLY
220-240 V 50-60
Hz



APPLICATION
LBP



MOTOR TYPE
BPM



STANDARD
EN12900



**COOLING CAPACITY
(4500 RPM)**
513 W



**EFFICIENCY
(4500 RPM)**
1.11 W/W

DATA

GENERAL DATA

Model	VNEK213U
Type	Hermetic Reciprocating
Technology	VCC
Compressor Application	LBP
Expansion Device	Capillary Tube or Expansion Valve
Compressor Cooling	Fan/220
Starting Torque	HST
Plant	SLOVAKIA

ELECTRICAL DATA

Start Winding Resistance	3.82 Ω at 25°C
Run Winding Resistance	2.53 Ω at 25°C

MECHANICAL DATA

Displacement	13.54 cm ³
Oil Charge	500 ml
Oil Type	ESTER
Oil Viscosity	ISO22
Weight	11.6 Kg

ELECTRICAL COMPONENTS

CSR CSIR BOX	No
Starting Device Type	INVERTER
Overload Protection	MST26GL-3166
Inverter	VCCHP2456XXXXX
Inverter Description	VCCHP2456XXXXX

EXTERNAL CHARACTERISTICS

Base Plate	UNI
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Connector	Internal Diameter	Shape	Material
Suction	8.1 mm	SLANTED 42°	COPPER
Discharge	6.45 mm	SLANTED PARALLEL TO BASE PLATE	COPPER
Process	6.45 mm	SLANTED 42°	COPPER

PERFORMANCE

TESTED CONDITIONS

Tested Refrigerant	R-290
Tested Application	LBP
Tested Standard	EN12900
Tested Cooling	Fan
Tested Voltage	220 V
Refrigerant Temperature	Dew

Performance on Compressor Speed: 2000 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
40	-35	245	1.24	198	-	2.82

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	206	1.22	169	-	2.25
-35	265	1.38	192	-	2.92
-30	338	1.57	216	-	3.72
-25	426	1.78	240	-	4.71
-20	533	2.02	264	-	5.90
-15	660	2.30	287	-	7.35
-10	811	2.63	309	-	9.08

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	170	0.97	175	-	2.04
-35	224	1.11	203	-	2.70
-30	290	1.25	232	-	3.50
-25	369	1.40	263	-	4.47
-20	464	1.58	294	-	5.65
-15	578	1.77	326	-	7.07
-10	713	1.99	358	-	8.77

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	239	0.99	242	-	3.21
-25	308	1.11	279	-	4.16
-20	392	1.24	317	-	5.32
-15	492	1.38	358	-	6.72
-10	611	1.53	399	-	8.39

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 2400 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
40	-35	292	1.23	238	-	3.35

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	244	1.21	202	-	2.67
-35	316	1.37	230	-	3.47
-30	405	1.55	261	-	4.46
-25	512	1.76	291	-	5.66
-20	638	1.99	320	-	7.07
-15	784	2.27	345	-	8.73
-10	951	2.60	366	-	10.65

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	205	0.96	212	-	2.46
-35	268	1.10	244	-	3.23
-30	346	1.24	278	-	4.17
-25	440	1.40	315	-	5.33
-20	551	1.57	351	-	6.70
-15	680	1.76	386	-	8.32
-10	829	1.98	418	-	10.20

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	286	0.99	288	-	3.85
-25	367	1.11	330	-	4.95
-20	462	1.24	373	-	6.28
-15	575	1.38	416	-	7.85
-10	705	1.54	457	-	9.68

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 3000 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
40	-35	352	1.19	296	-	4.05

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	291	1.15	252	-	3.18
-35	381	1.33	288	-	4.19
-30	493	1.51	327	-	5.43
-25	628	1.71	367	-	6.94
-20	786	1.94	406	-	8.71
-15	969	2.20	441	-	10.79
-10	1176	2.50	470	-	13.17

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	248	0.94	265	-	2.98
-35	325	1.07	303	-	3.91
-30	421	1.22	346	-	5.09
-25	539	1.37	394	-	6.53
-20	678	1.53	442	-	8.26
-15	841	1.72	489	-	10.29
-10	1027	1.93	532	-	12.64

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	353	0.99	356	-	4.75
-25	452	1.11	408	-	6.11
-20	572	1.23	464	-	7.77
-15	713	1.37	520	-	9.73
-10	876	1.52	575	-	12.03

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 3600 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
40	-35	418	1.15	362	-	4.8

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	344	1.11	309	-	3.76
-35	445	1.27	351	-	4.89
-30	572	1.44	398	-	6.29
-25	725	1.62	447	-	8.01
-20	909	1.83	496	-	10.07
-15	1124	2.07	543	-	12.52
-10	1374	2.36	583	-	15.39

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	294	0.90	325	-	3.52
-35	387	1.04	371	-	4.66
-30	501	1.18	424	-	6.05
-25	638	1.32	482	-	7.73
-20	800	1.48	541	-	9.74
-15	989	1.65	600	-	12.10
-10	1208	1.84	655	-	14.87

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	418	0.97	432	-	5.61
-25	539	1.08	498	-	7.27
-20	680	1.20	567	-	9.23
-15	845	1.33	637	-	11.53
-10	1034	1.47	706	-	14.20

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 4500 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
40	-35	513	1.11	460	-	5.89

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	422	1.07	393	-	4.62
-35	541	1.22	445	-	5.95
-30	688	1.37	503	-	7.58
-25	866	1.54	564	-	9.56
-20	1077	1.72	625	-	11.94
-15	1325	1.94	683	-	14.75
-10	1612	2.19	736	-	18.05

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	367	0.89	412	-	4.40
-35	480	1.02	471	-	5.78
-30	615	1.14	537	-	7.42
-25	775	1.27	608	-	9.39
-20	963	1.41	682	-	11.72
-15	1181	1.57	754	-	14.45
-10	1434	1.74	823	-	17.64

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

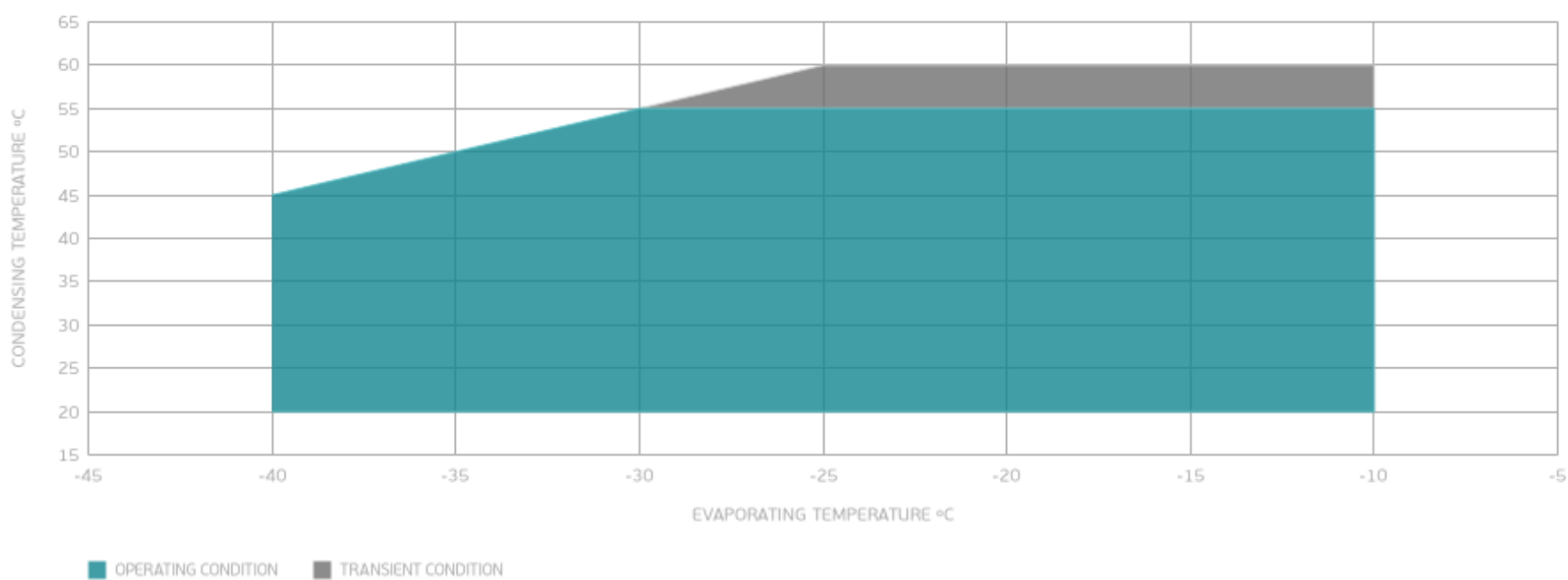
PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	524	0.96	546	-	7.03
-25	667	1.06	628	-	9.01
-20	834	1.17	713	-	11.31
-15	1025	1.28	800	-	14.00
-10	1245	1.41	884	-	17.10

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

ENVELOPE



EXTERNAL DIMENSIONS

